Dec. 31, 1940. E. DANIEL 2,226,710

FOLDING TABLE

Filed March 13, 1939

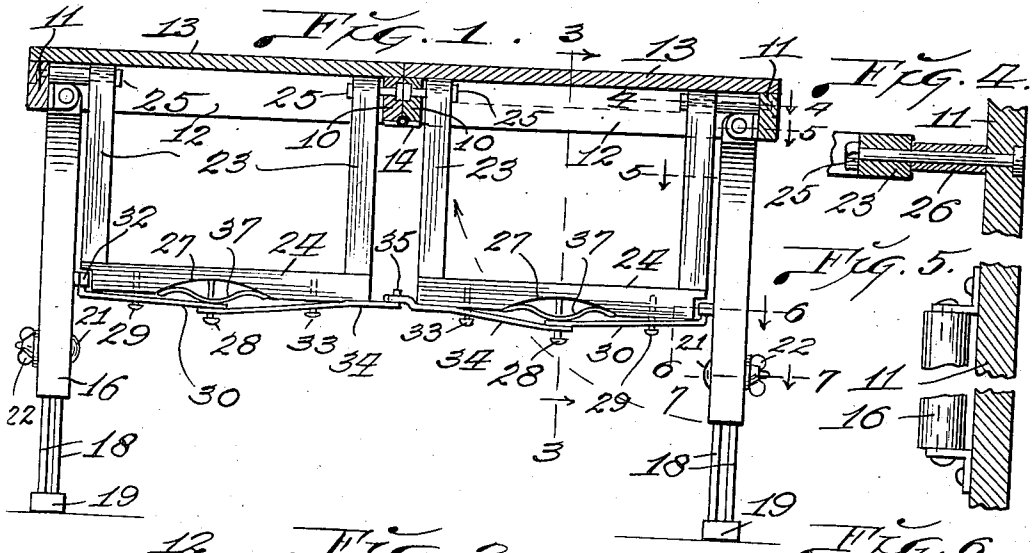


Fig. 1.

Fig. 4.

Fig. 5.

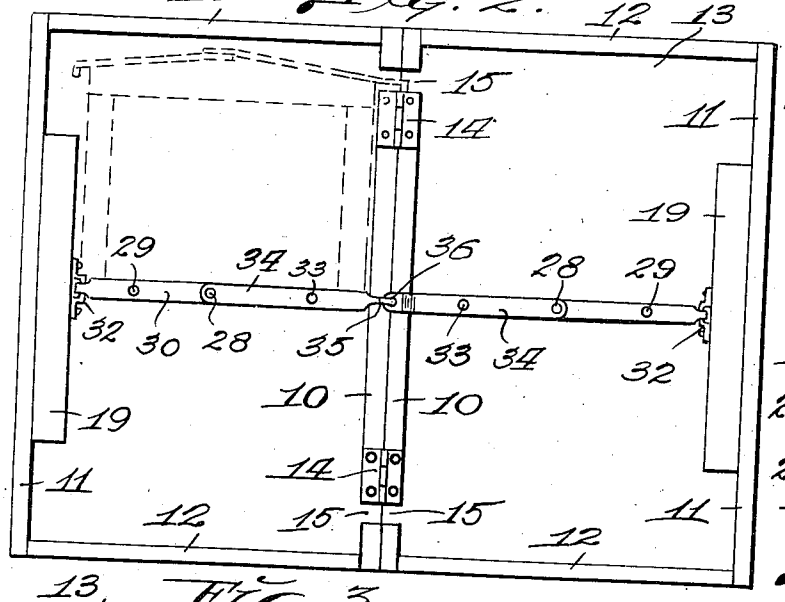


Fig. 2.

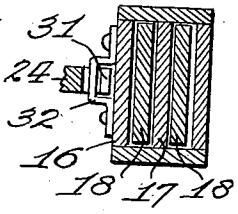


Fig. 6.

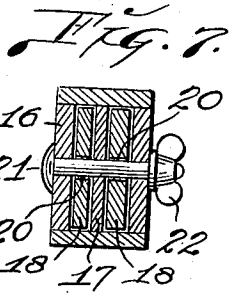


Fig. 7.

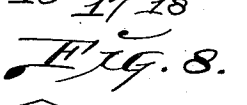


Fig. 8.

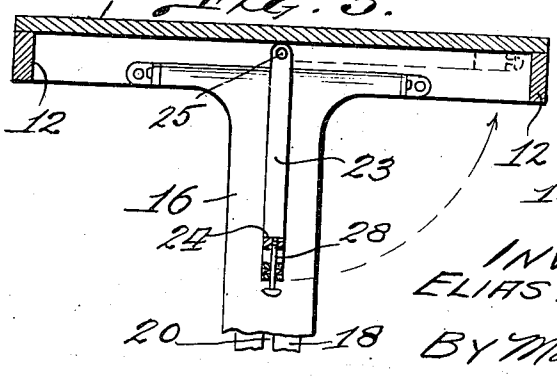
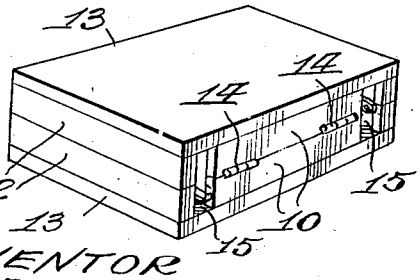


Fig. 3.



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FOLDING TABLE

Elias Daniel, Los Angeles, Calif.

Application March 13, 1939, Serial No. 261,551

2 Claims. (Cl. 311—90)

My invention relates generally to tables and more particularly to a folding table applicable for use in the home as a dining table, kitchen table, or card table, and also applicable for use by picnickers, motorists and campers.

The principal object of my invention is, to provide a table wherein the table top comprises two shallow box-like structures connected by hinges so that one part may be folded into position on the other part, thereby producing a container that receives the folding legs and folding braces when the table is collapsed and packed for storage or transportation.

Further objects of my invention are, to provide a folding table that is of strong durable structure, further, to provide a table having folding legs that are extensible in order that the table top may be adjusted to different elevations and further, to provide a table having folding braces which when swung into positions of use engage each other and the folding legs of the table, so as to hold the entire structure in firm substantial position when the table is opened and set up for use.

With the foregoing and other objects in view, my invention consists in certain novel features of construction and arrangement of parts that will be hereinafter more fully described and claimed and illustrated in the accompanying drawing in which:

Fig. 1 is a vertical longitudinal section taken approximately through the center of a folding table constructed in accordance with my invention.

Fig. 2 is a view looking against the under side of the table.

Fig. 3 is a vertical cross section taken on the line 3—3 of Fig. 1.

Fig. 4 is an enlarged detail section taken on the line 4—4 of Fig. 1.

Fig. 5 is an enlarged detail section taken on the line 5—5 of Fig. 1.

Fig. 6 is an enlarged detail section taken on the line 6—6 of Fig. 1.

Fig. 7 is an enlarged detail section taken on the line 7—7 of Fig. 1.

Fig. 8 is a perspective view of the table collapsed and folded into compact form for storage or transportation.

In the construction of my improved folding table, two identical rectangular frames are used, each frame comprising an inner side rail 10, an outer side rail 11 and end rails 12.

Applied to the tops of these frames are panels 13 that constitute the table top and the inner rails 10 are connected by hinges 14 in order that the two frames may be folded into position immediately against and parallel with each other to form a substantially rectangular housing that contains the folding legs and braces of the table.

Portions of the side rails 10 immediately adjacent the hinges 14 are cut away to provide notches 15 for the accommodation of portions of the braces when the latter are folded into the frames forming a part of the table top.

Suitably hinged to the inner faces of the outer side rails 11 of the frames just above their lower edges are the upper ends of leg members 16, which members are hollow and provided with centrally arranged partitions 17, which latter divide the space within the hollow leg members into two narrow chambers.

Arranged for sliding movement in the narrow chambers of each leg member 16, are parallel rails 18 that constitute the lower or extensible portions of the legs. Secured to the lower ends of each of these pairs of rails 18 are horizontally disposed blocks 19 that are adapted to rest on the floor or ground when the table is set up for use. The extensible leg members 18 are provided with longitudinally disposed slots 20 and, passing therethrough and through the side walls of the hollow upper leg members 16 are bolts 21 on the threaded ends of which are mounted winged nuts 22, thus producing means for clamping the extensible leg members to the upper leg members in differently adjusted positions and consequently enabling the table top to occupy different horizontal planes.

Obviously, other conventional forms of clamping means may be arranged between the upper and lower leg members.

Arranged within each part of the table is a substantially U-shaped folding brace comprising a pair of parallel side members 23, the lower ends of which are connected by a horizontally disposed rail 24.

The upper ends of the parallel side members 23 of each brace are hinged to the central portions of the side members 10 and 11 of the table top frames in any suitable manner, preferably by means of bolts 25. In order that the outer member 23 of each brace may occupy a position inside the hollow upper leg member 16, a spacer, preferably a tube 26 is arranged on the bolt that connects the outer one of the upright members 23 to the outer rail 11 of the table top frame (see Fig. 4).

Formed in the under side of the central portion of each rail 24 is an elongated curved notch 27

and, seated in the center of the rail and projecting downwardly through this notch is a headed pin or bolt 28. Fulcrumed on pins or bolts 29 that are seated in the under sides of the rails 24 between the notches 27 and the outer ends of said rails are levers 30 formed of strap metal, the inner ends of which are loosely arranged on the bolts 28.

The outer ends of these levers 30 are bent upward to form short fingers 31 which when the table is set up for use, engage in loops 32 that are mounted on the inner faces of the upper leg member 16, thus providing a releasable connection between the lower outer corners of the braces and the upper leg members.

Fulcrumed on pins 33 that are seated in the under sides of the rails 24 between the notches 27 and the outer ends of said rails are levers 34, preferably straps of metal, the inner ends of which are loosely mounted on the bolts 28.

The outer end of one of these levers 34 is extended upwardly to form a short pin 35 that is adapted to engage through an aperture 36 that is formed in the adjacent end of the corresponding lever carried by the other one of the folding braces, thus providing a releasable connection between the lower inner corners of the braces.

Occupying the notches 27 in the rails 24 are bow springs 37, the ends of which bear against the rails 24 and the bowed central portion of said springs bear on the overlapping ends of the levers 30 and 34.

The bolts 28 pass through the centers of the springs 37.

When my improved table is set up for use, the various parts thereof occupy the positions as illustrated in Figs. 1, 2, and 3. The braces occupy vertical positions beneath the table top members with the fingers 31 engaging in the loops 32 on the upper leg members 16 and, the inner lower corners of the braces are connected to each other by the engagement of the pin 35 in the aperture 36. The frames and panels comprising the table top may be adjusted vertically to the desired position and secured after such adjustment by means of the bolts 21 and winged nuts 22.

When the table is collapsed and folded for storage or transportation, the lower leg members 18 are moved into the upper leg members as far as possible and secured by tightening the winged nuts 22 on the bolts 21.

The overlapping end portions of the levers 30 and 34 are now pressed upwardly toward the rails 24 against the yielding resistance offered by the springs 37, thereby swinging the levers 30 on their fulcrums so as to disengage the fingers 31 from the loops 32 and, the end of the lever 34 carrying the pin 35 is flexed downwardly a sufficient distance to disengage said pin from the aperture 36.

The U-shaped braces are now swung upwardly into position against the under sides of the table top panels 13, one brace being swung in one direction and the other brace in the other direction and, thus the braces occupy positions directly against the under sides of the panels 13 with the end of the lever 34 carrying pin 35 occupying one pair of notches 15 and the end of the lever provided with the aperture 36 occupying the other pair of notches 15.

The legs 16 containing the extensible leg members 18 are now folded upwardly into position against the under sides of the folded braces and the two parts of the table top are now swung on the hinges 14 so that one part occupies a position directly against the other part and, thus the two parts of the table top provide a box-like container for the folding legs and braces as illustrated in Fig. 8.

Thus, the entire table when collapsed and folded occupies comparatively little space and can be conveniently carried on the running board or storage compartment of an automobile.

Thus it will be seen that I have provided a folding table that is relatively simple in construction, inexpensive of manufacture and very effective in performing the functions for which it is intended.

It will be understood that minor changes in the size, form and construction of the various parts of my improved folding table may be made and substituted for those herein shown and described, without departing from the spirit of my invention, the scope of which is set forth in the appended claims.

I claim as my invention:

1. In a folding table, a pair of identical shallow box-like table top members, hinges connecting said members whereby one member may be folded into position against the other member, braces hinged to the under side of said table top members and adapted to fold into position directly against the under surfaces of said table top members, legs hinged to the outer ends of the table top members and adapted to fold into position directly against the braces when the latter are folded into the table top members, a pair of levers fulcrumed on the under side of each brace with the inner ends of the members of each pair of levers overlapping one another, a spring disposed between the overlapping inner ends of each pair of levers and the adjacent brace, means on each leg for receiving the outer end of one lever of each pair when the legs and braces are in open position and means providing a detachable connection for the outer ends of the other levers of each pair when the said braces are in open position.

2. In a folding table, a two-part table top, hinges connecting the two parts of the table top, a leg hinged to the outer end portion of each table top member and adapted to fold into the table top member to which it is hinged, a brace hinged to the under side of each table top member and adapted to fold against the under side of the table top member to which it is hinged, a pair of levers fulcrumed on the under side of each brace with the inner ends of the members of each pair of levers overlapping one another, a spring disposed between the overlapping inner ends of each pair of levers and the adjacent brace, means on each leg for receiving the outer end of one lever of each pair when the legs and braces are in open position and means providing a detachable connection for the outer ends of the other levers of each pair when the said braces are in open position.

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