

June 20, 1950

L. ALCH
PICNIC TABLE

2,512,473

Filed April 18, 1946

3 Sheets-Sheet 1

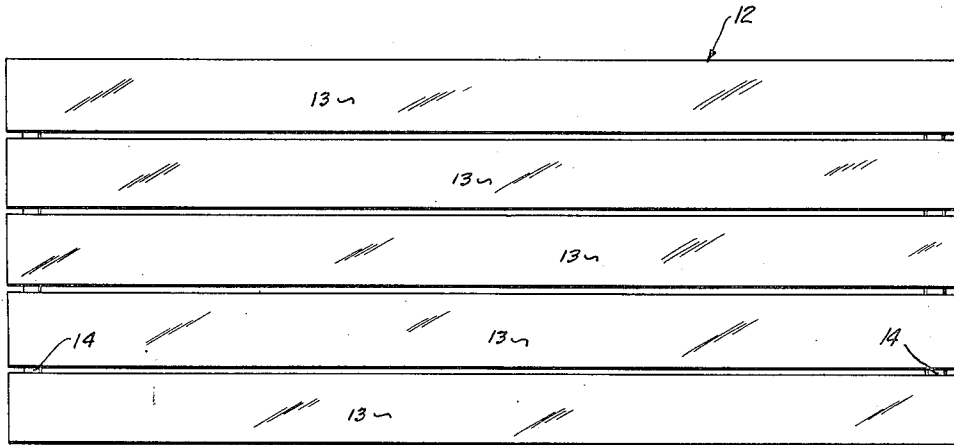


FIG. 1.

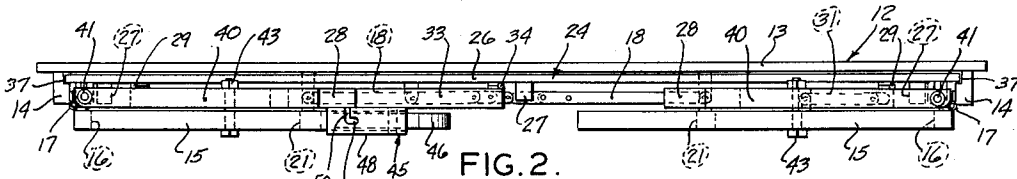


FIG. 2.

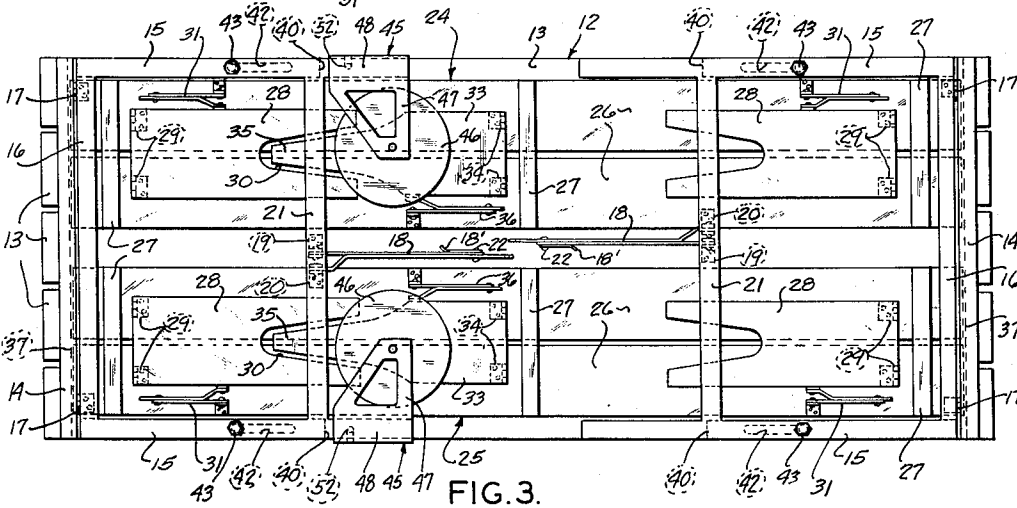


FIG. 3.

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June 20, 1950

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3 Sheets-Sheet 2.

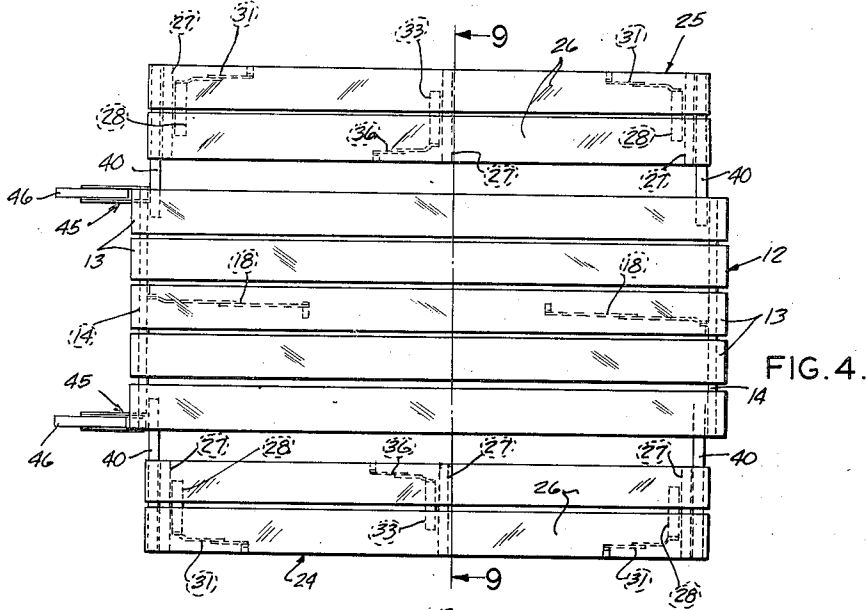


FIG. 4.

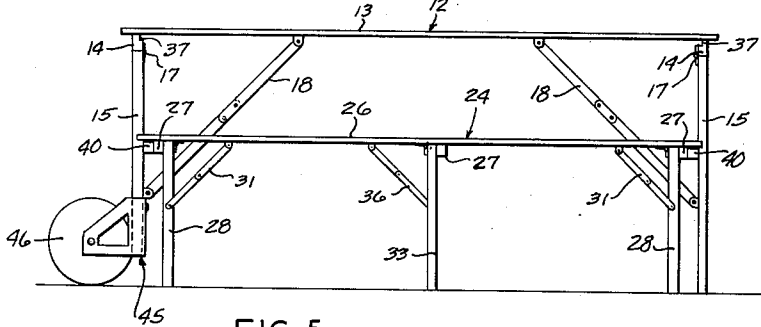


FIG. 5.

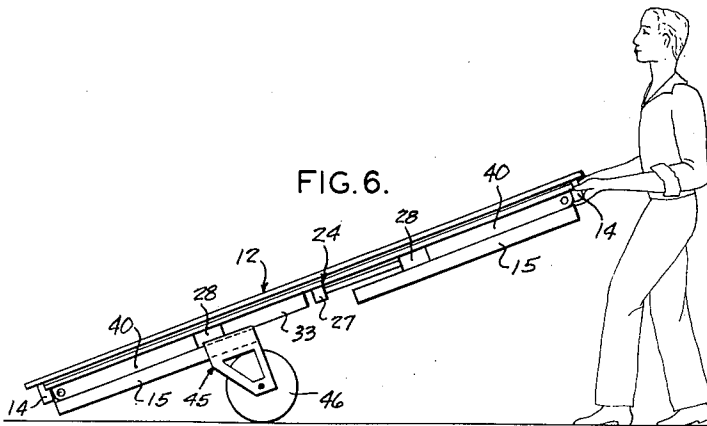


FIG. 6.

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L. ALCH
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2,512,473

Filed April 18, 1946

3 Sheets-Sheet 3

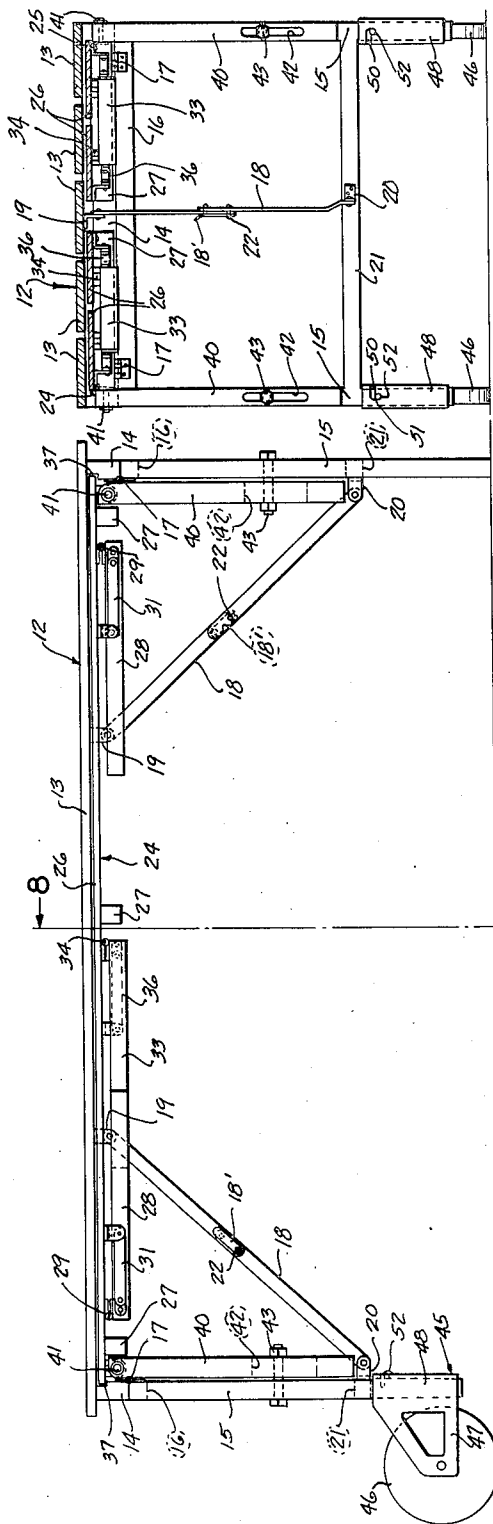


FIG. 8.

FIG. 7.

← 8

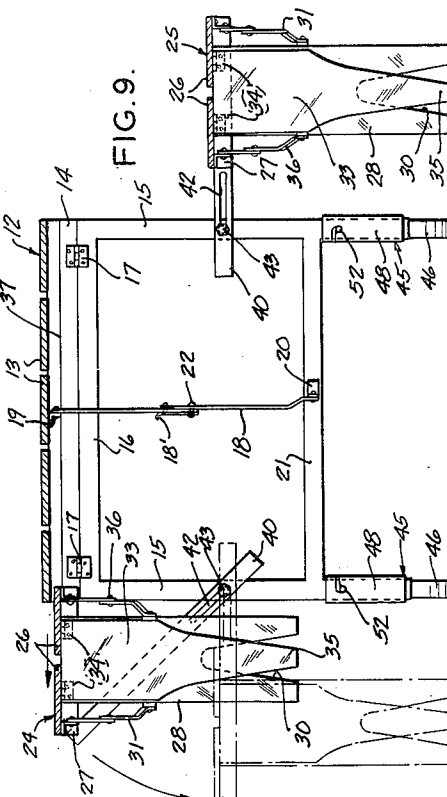


FIG. 9.

FIG. 8.

FIG. 7.

← 8

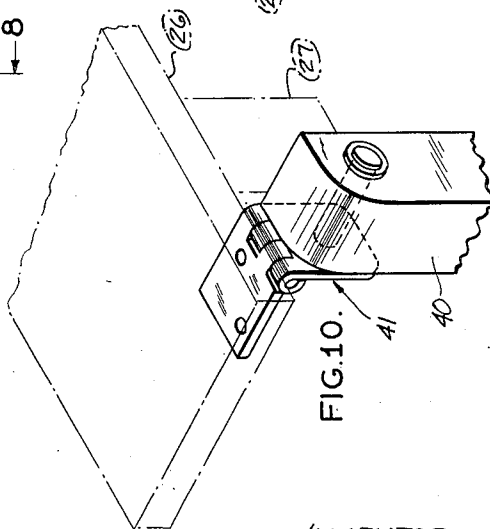


FIG. 10.

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UNITED STATES PATENT OFFICE

2,512,473

PICNIC TABLE

Lessing Alch, St. Louis, Mo.

Application April 18, 1946, Serial No. 663,178

11 Claims. (Cl. 155—123)

1

The present invention relates in general to portable tables and, more particularly, to improvements in and concerning the construction, arrangement, and cooperation of parts embodied in portable picnic tables, including self-contained benches.

The present invention has for its primary object the provision of an outdoor or picnic type table which is entirely portable and may be quickly and simply folded up into extremely compact form in which it may be carried from place to place and may, when desired, be unfolded and set up for use in a quick and convenient manner to produce a picnic table which is sturdy and rigid and is provided with self-contained benches or seats.

It is a further object of the present invention to provide a picnic table of the type stated which may be quickly folded up and rolled away from the site or location of actual use to a place of storage.

It is a further object of the present invention to provide a picnic table which may be folded into extremely compact form so as to permit of ease and convenience in packaging for transportation from the place of manufacture to the place of sale or ultimate use.

It is an additional object of the present invention to provide a table of the type stated which is not only rugged and durable, but is extremely economical in cost of construction and manufacture.

It is a further object of the present invention to provide a collapsible and foldable picnic table having self-contained nested benches or seating arrangements which may be quickly and conveniently withdrawn from nested position for actual use or may be allowed to remain in nested position without interfering with the use of the table as such in the event that it should be desired to use the table as a table without benches.

And with the above and other objects in view, my invention resides in the novel features of form, construction, arrangement, and combination of parts presently described and pointed out in the claims.

In the accompanying drawings (three sheets):

Figure 1 is a top plan view of the invention as the same appears when ready for packaging or storage;

Figure 2 is a side elevational view thereof;

Figure 3 is a bottom plan view thereof;

Figure 4 is a top plan view of the invention as the same appears when set up as a table unit;

Figure 5 is a side elevational view thereof;

2

Figure 6 is a general view of the invention disclosing its portability in one condition of folded relationship;

Figure 7 is a side elevational view of the table when fully set up for use as a table;

Figure 8 is a transverse sectional view taken along line 8—8 of Figure 7;

Figure 9 is a transverse sectional view taken along line 9—9 of Figure 4 showing the side benches in extended relationship and illustrating certain features of the operation necessary to extend and erect the benches; and

Figure 10 is a phantom view of a double-acting hinge construction forming a part of the present invention.

Referring now in more detail and by reference characters to the drawings, and particularly Figures 1, 2, and 3, the preferred construction for the portable table 12 includes a plurality of table surface forming members or leaves 13 secured at their outer ends in slightly spaced, edge-to-edge positions by cross-tie pieces 14, which extend the full width of the table. The table is provided with legs 15 attached by a cross bar 16 and spaced hinge elements 17 to the inner surface of piece 14 at the righthand end of the table, as shown in Figure 3. A similar leg structure also of hinged type is provided at the opposite end of the table, so that it is possible to fold the respective pairs of legs inwardly to the position assumed thereby in Figure 2. When the pairs of legs are extended to table-supporting positions, collapsible flat metal braces 18, attached at one end by bracket 19 to the under side of the center table leaf 13 and at the opposite end to a bracket 20 secured on leg cross brace 21, unfold about the center pivot pin 22 to extended position to retain the legs in such positions, and being releasably latched in open position by a spring-leaf supported latch-pin mechanism 18'. The exact character of these braces 18 and the latch-pin mechanism 18' is well known in the art and consequently needs no further description.

In the folded and compact relation of parts shown in Figures 2 and 3, the legs 15 lie parallel to, but spaced from, the table leaves 13 for the purpose of accommodating side bench assemblies 24 and 25 foldably nested therebetween. Each bench assembly is comprised of a plurality of seat planks 26 held in spaced relation by cross cleats 27, there being three such cleats shown for each bench assembly. The latter assemblies are adapted to be supported when in extended positions by foldable drop legs 28 hingedly connected by means 29 at or near the outer corners thereof.

Each of these end legs is provided with a pivotally arranged and foldable holding brace 31 of a type similar to the table leg braces 18 before mentioned. In addition, each bench assembly is supported intermediate its ends by drop legs 33 which are hinged at 34 to the seat planks, and each thereof is suitably supported by pivotally arranged and foldable holding braces 36, so that the same may be moved between collapsed and extended positions. It should be noted that the end legs 28 are arcuately cut away along their lower margin to provide recesses 30 and the center or drop legs 33 are of symmetrically reduced width, at 35, so as to nest neatly within the recess 30.

It is thus evident that the table and the bench assemblies may be completely folded up and the latter neatly and compactly nested under the table leaves so as to be within the margins of the table in an out of the way relation. To accomplish this aim and further provide support for each of the bench assemblies when in nested position, it can be seen that each of the table cross ties 14 has a longitudinally extending side notch 37 formed in the inwardly directed face to receive the end lips of each of the seat planks. As will presently appear, the notches 37 act as slide-ways to permit lateral sliding movement of the bench assemblies (Figures 6) when the same are moved between extended and nested positions.

An important feature of the present construction is disclosed in the means for movably and foldably attaching each of the bench assemblies to the table. This means is found in the arm members 40, one such arm being operably positioned at each end of each of the bench assemblies 24 and 25, and each further being connected to an adjacent table leg 15 in a lost motion relation. In Figures 4, 5, and 6, it can be seen that the arms 40 are swingably and pivotally connected by a double-acting hinge 41 to the outer end of the bench cleats 27, and extend downwardly and parallel to the adjacent table legs 15. Near the lower end of each such arm 40, a longitudinal slot 42 is provided to receive in loose fitting relation the shank portion of a guide and support pin 43 fixed in the table leg. It is important to note that the hinge member 41 for each arm 40 provides for hinging action thereof in a direction to allow it to move with the table legs as they fold and unfold (Figures 2 and 4). In addition, each of the arms is free to swing in a lateral direction or parallel to the bench cleat to which it is attached (Figure 9). The first-mentioned hinging movement of each arm 40 is necessary to permit the same to move with the table legs 15 when they are folded or unfolded and this concurrent movement of arms 40 and table legs 15 is accomplished, in part, by the lost motion slots 42 in each of the arms. On the other hand, each arm 40 must move or hinge in a direction parallel with the adjacent bench cleats 27 so that, as the bench assemblies are withdrawn from nested relation (see left hand bench in full line in Figure 9) for erection and use (dotted outline in Figure 9), the arms 40 will swing out and assume positions of support below the bench seat planks. At the same time the slots 42 will allow some lateral movement of the bench assemblies to accommodate the spacing requirements of users when seated thereon.

The present arrangement of bench assemblies is advantageous in that they or each thereof may be nested under the table as desired, thus leaving one or both sides of the table free and accessible.

In the initial setting up of the table and, while the bench assemblies are still nested, it is possible to extend the supporting legs 28 and 33 and otherwise fully prepare the benches for positionment on the floor, ground or other surface as the case may be. When this method of erection of the benches is followed, it is a simple act to withdraw them from slideways 37 and swing the same under direction of arms 40 at each end to final position. The fact that the benches can be moved into and out of the slideways 37, whether or not the legs are folded or extended, adds considerably to the convenience of handling the table, as will now be appreciated.

Portability of the table is provided for in the wheel assemblies 45 for cooperation with either end pair of table legs 15. In Figure 10 of the drawing, it may be seen that the wheel assemblies each comprise a wheel 46 carried on a bracket 47, which, in turn, is provided with a sleeve type body 48 to telescope over the lower end portion of the table leg 15. The sleeve body is preferably cylindrical, to match with the shape of the leg 15. Since each wheel 46 of the assemblies extends below the bracket 47 for ground clearance it is necessary to shorten the leg length of that pair of legs with which they are associated. Moreover, each of these wheel assemblies is arranged for limited swiveling movement, so that it can be folded in to retracted position, as in Figure 3, for completing the compact folded arrangement desired. Positional control of the swiveling assemblies is accomplished by means of a laterally or circumferentially formed slot 50 near the upper end of each cylindrical body 48. Each slot 50 extends circumferentially over approximately 90 degrees of arc of the body sleeve and terminates in a locking slot 51 directed at 90 degrees thereto. A cooperating pin 52 secured in the table leg rides in the slot and restricts the swiveling movement of the body 48. Preferably, the slot 50 and locking slots 51 at each end thereof are located such that the wheel assembly may be secured in folded position (Figure 3) with pin 52 in the appropriate locking slot 51. When it is desired to extend the wheel assembly, the body sleeve 48 must be moved longitudinally outwardly of the table leg until pin 52 can slide in the lateral slot 51, whereupon the assembly can be rotated 90 degrees, pin 52 then being received in the opposite locking slot 51 by longitudinal inward movement of the sleeve 48. In this latter position, the weight of the table on wheel 46 will retain pin 52 in slot 51. A study of the several views of the drawing will be sufficient for understanding of the above described wheel assembly.

It should now be clear that the presently preferred wheel assembly arrangement will provide the means for rendering the table easily portable either while it is completely folded, as in Figure 6, or when in various stages of erection. With the table and side bench assemblies fully set up, as in Figure 7, it is possible to transport the same on wheels 46 by first moving the bench assemblies to nested positions in slideways 37.

Other and further details of construction and assembly of the several parts and component assemblies herein above described will become evident upon inspection of the drawing. While the present disclosure is a presently preferred one, it should be clearly understood that certain modifications and minor changes in structure and disposition of parts may be made with-

5

out departing from the spirit and full intended scope of the invention, the same being defined in and by the subjoined claims.

Having thus described my invention, what I claim and desire to secure by Letters Patent is:

1. A picnic table comprising a top member, transverse end rails secured upon the under face of the top member adjacent each end and having inwardly presented grooves, swingable pairs of leg-members hingedly mounted on the end rails of the top member, and bench means swingably mounted upon the leg-members and having a seat board adapted to fit edgewise into the grooves of the end rails when the bench means is folded up into nested underlying relation beneath the top member.

2. A picnic table comprising a top member, transverse end rails secured upon the under face of the top member adjacent each end thereof, pairs of connected leg-members hingedly mounted upon the end rails for optional disposition in upright position perpendicular to the top member and collapsed position in spaced parallel relation to the under face of the top member, and collapsible bench means swingably mounted upon the leg-members and adapted to be folded into nested underlying relation beneath the top member in the space between the leg-members and the top member when the leg-members are folded into collapsed position.

3. A picnic table comprising a top member, transverse end rails secured upon the under face of the top member adjacent each end thereof, pairs of connected leg-members hingedly mounted upon the end rails for optional disposition in upright position perpendicular to the top member and collapsed position in spaced parallel relation to the under face of the top member, collapsible bench means swingably mounted upon the leg-members and adapted to be folded into nested underlying relation beneath the top member in the space between the leg-members and the top member when the leg-members are folded into collapsed position, and roller elements mounted upon the ends of one pair of leg-members and adapted optionally to be shifted into operative position when the leg-members are upright and folded flatwise into compact underlying relation when the leg-members are in collapsed position.

4. A picnic table comprising a top member, swingable leg members hingedly mounted at opposite ends of the top member, bench means, hinge members mounted on said bench means, a pintle projecting outwardly from each of said hinge members, and links pivotally mounted at their upper ends on said pintles, said links being both slidably and hingedly connected at their lower ends to the leg members whereby said bench means is adapted to be folded into nested underlying relation beneath the top member.

5. A picnic table comprising a top member, swingable leg members hingedly mounted at opposite ends of the top member, bench means, hinge members including a pair of leaves, one of which is mounted on said bench means, and the other of which is provided with a pintle projecting outwardly at right angles thereto, and a link pivotally mounted at its upper end on said pintle, said link being both slidably and hingedly connected at its lower end to the adjacent leg member whereby said bench means is adapted to be folded into nested underlying relation beneath the top member.

6. A picnic table comprising a top member,

6

swingable leg members hingedly mounted at opposite ends of the top member, support pins projecting outwardly from said leg members, bench means, and link means pivotally mounted at their upper ends on said bench means, said links being provided in their lower ends with longitudinal slots for sliding co-operation with said support pins whereby said bench means is adapted to be folded into nested underlying relation beneath the top member.

7. A picnic table comprising a top member, swingable leg members hingedly mounted at opposite ends of the top member, support pins projecting outwardly from said leg members, bench means, hinge members mounted on said bench means adjacent opposite ends of said bench means, said hinge members each including a pair of leaves one of which is secured to the bench means and the other of which is provided with a pintle projecting outwardly therefrom, and links pivotally mounted at their upper ends on said pintles, said links being provided in their lower ends with longitudinal slots for sliding co-operation with said support pins whereby said bench means is adapted to be folded into nested underlying relation with the top member.

8. A picnic table comprising a top member, swingable leg members hingedly mounted at opposite ends of the top member, support pins projecting outwardly from said leg members, hinge members mounted at the outer corners of said bench means, said hinge members each including a pair of leaves one of which is secured to the bench means and the other of which is provided with a pintle projecting outwardly therefrom, and links pivotally mounted at their upper ends on said pintles, said links being provided in their lower portions with longitudinal slots for slidable co-operation with said support pins whereby said links may be shifted through an arc of 90°, said pintles permitting said links to be folded into nested position beneath said top member when said leg members are so folded.

9. A picnic table comprising a top member, transverse end rails secured upon the under face of the top member adjacent each end and having inwardly presented longitudinal grooves, swingable pairs of leg members hingedly mounted on the end rails of the top member, and bench means swingably mounted upon the leg members and having a seat board, the end margins of said seat board being adapted to slide within the grooves and to be therein maintained when said bench means is folded into nested underlying relation beneath the top member.

10. A picnic table comprising a top member, transverse end rails secured upon the under face of the top member adjacent each end and having inwardly presented longitudinal grooves extending throughout the length of said end rails, swingable pairs of leg members hingedly mounted on the end rails of the top member, and bench means swingably mounted upon the leg members and having a seat board adapted to fit edgewise into the grooves of the end rails when the bench means is folded up into nested underlying relation beneath the top member.

11. A picnic table comprising a top member, transverse end rails secured upon the under face of the top member adjacent each end thereof, said end rails being provided on their inner surface with longitudinal grooves, pairs of connected leg members hingedly mounted upon the end rails for optional disposition in upright position perpendicular to the top member and collapsed

position in spaced parallel relation to the under face of the top member, collapsible bench means swingably mounted upon the leg members and adapted to be folded into nested underlying relation beneath the top member by sliding within the grooves when the leg members are folded into collapsed position and roller elements mounted upon the ends of one pair of leg members and adapted optionally to be shifted into operative position when the leg members are upright and folded flatwise into compact underlying relation when the leg members are in collapsed position.

LESSING ALCH.

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