June 5, 1956

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2,748,837

FOLDING TABLE AND SEAT STRUCTURE
FOR PICNIC TABLES AND THE LIKE

Filed May 23, 1955

2 Sheets-Sheet 1

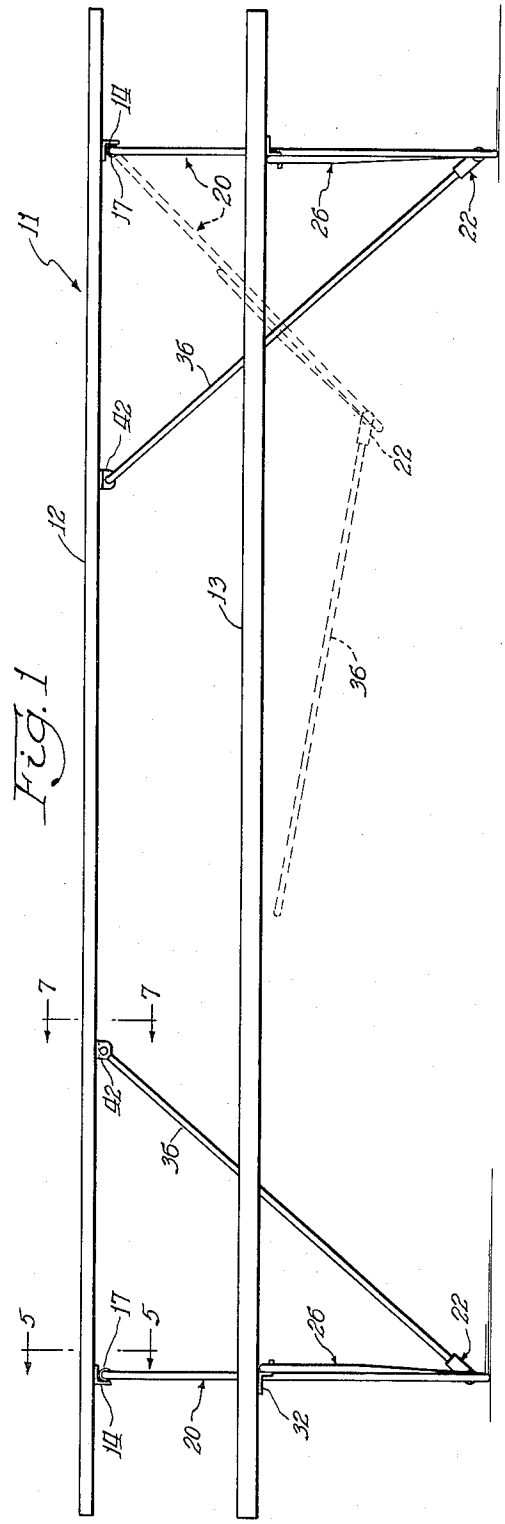

Fig. 1

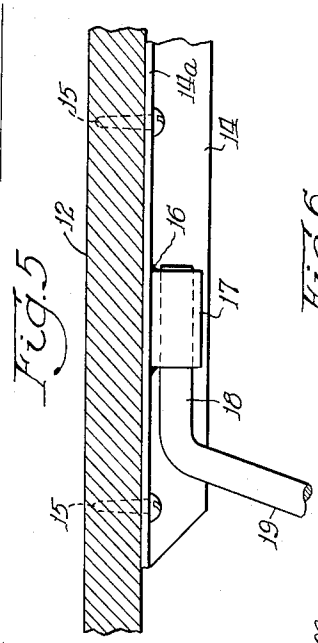

Fig. 5

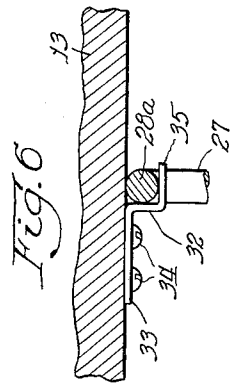

Fig. 6

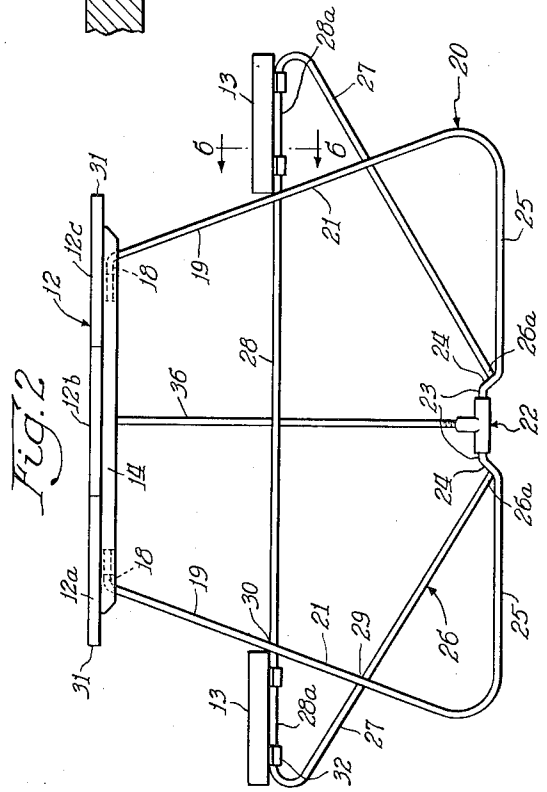

Fig. 2

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FOLDING TABLE AND SEAT STRUCTURE FOR PICNIC TABLES AND THE LIKE

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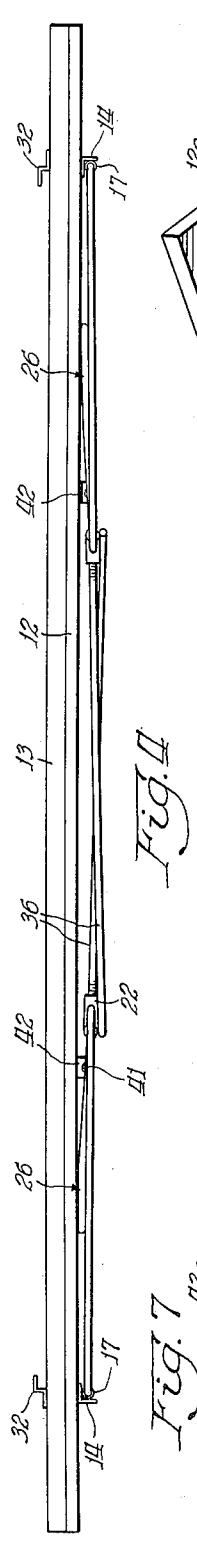

Fig. 1

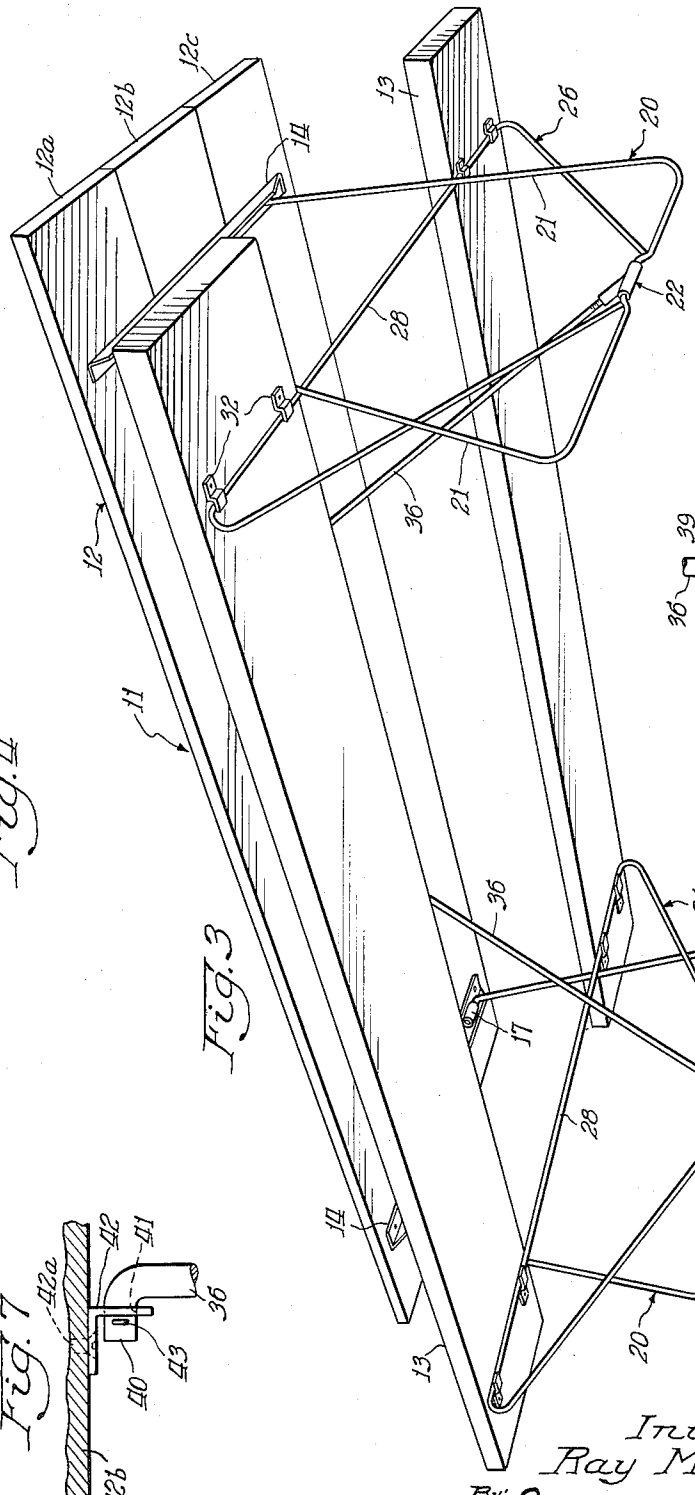

Fig. 3

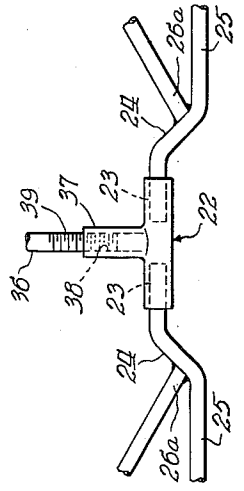

Fig. 8



Fig. 7

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United States Patent Office 2,748,837 Patented June 5, 1956



2,748,837

# FOLDING TABLE AND SEAT STRUCTURE FOR PICNIC TABLES AND THE LIKE

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Application May 23, 1955, Serial No. 510,368

12 Claims. (Cl. 155—124)

This invention relates to folding table and seat structure, more particularly for picnic tables and the like, and aims to provide an efficient and economical structure of this class.

Heretofore, structures of this class have been either entirely of wood, which is cumbersome and expensive, or if of part metal have had such metal parts formed largely of tubular stock which again is cumbersome and expensive.

The present invention provides for the first time a device which may be constructed of relatively inexpensive bar stock, preferably wrought iron, of a diameter substantially less than tube stock, and which, at the same time, as here disclosed, is so arranged as to provide enhanced strength and security of the parts when in operative position, together with ease and rapidity of disposition of the parts in so-called knock-down state for convenient transportation or storage. These desirable objects are here obtained with an economy of weight and cost of manufacture, making the structure saleable at a reduced price to an enhanced number of potential users.

These and other objects and advantages will be apparent from the following description, taken together with the accompanying drawings, of an illustrative embodiment of the invention, and in which drawings—

Figure 1 is a side elevational view showing a folding table and seat structure embodying the present invention, an alternative position of parts being shown in broken lines;

Figure 2 is an end elevational view thereof;

Figure 3 is a perspective view looking at the underside of the structure;

Figure 4 is a view showing the parts folded for transportation or storage;

Figure 5 is an enlarged fragmentary and sectional view taken on the line 5—5 of Fig. 1;

Figure 6 is a similar view taken on the line 6—6 of Figure 2;

Figure 7 is a similar view taken on the line 7—7 of Figure 1; and

Figure 8 is a detail view of parts shown in Figures 1, 2 and 3.

Referring in detail to the drawings, showing an illustrative embodiment of the invention, the numeral 11 indicates in general the folding table and seat structure suitable for picnic tables and the like, having a table member 12, that may be of a length of say from six to ten feet or thereabouts, and seat members 13 extending on each side, parallel with and substantially coterminous with the table member 12. For convenience of manufacture the table member 12 may be made up of a number of parallel and coplanar planks 12*a*, 12*b*, and 12*c* which are held together by an angle iron 14 on the underface of the table 12, one at each end thereof, to which the planks are secured as by screws 15 passing through the horizontal web 14*a* of the angle iron 14 and into the plank (Fig. 5). In this instance, on the inner face of the angle member 14 is carried, as by being welded



thereto as at 16, a sleeve piece 17, one at each end of the angle member, which serve as hinge sleeves for the inwardly turned horizontal extremities 18 of the upper ends 19 of leg elements which, as next described, are part of a generally U-shaped leg member 20.

In accordance with the present invention and in the present embodiment, a leg member 20 is made up of two somewhat L-shaped bars 21, the portions 19 already referred to being the upper ends of the members 21 and the latter are joined together by a pipe coupling 22 that receives, as a hinge sleeve, the contiguous ends 23 (Fig. 2) of the L-shaped members 21. The ends 23 are desirably inwardly and upwardly offset as at 24 from the lower reaches 25 of the L-shaped members 21 to permit the coupling 22 to function freely as a hinge for a purpose presently described.

It will be seen that the two members 21, having parts 18, 19, 23, 24 and 25 and joined by the coupling 22 provide the somewhat U-shaped leg member 20 for the table, there being one such leg member at each end of the table for supporting the latter, and that each leg member has its bight portion, made up of the parts 25 and their connecting elements somewhat widened and flattened so as to enhance the stability of the structure.

For supporting the seats 13 each leg member 20 carries an inverted somewhat triangular member 26 which has the lower ends 26*a* or inverted apex of its converging sides 27 secured as by welding to the offsets 24 of the leg member respectively and has its upraised base portion 28 widened intermedially of the leg member 20 to extend therebeyond as at 28*a* at each side. The seat supporting member 26 is rigid with the leg member sides 21 and for this purpose may be welded thereto as at 29 and 30 where the seat support parts 27 and 28 intersect the leg member parts 21 respectively. The seat support members 26 therefore have triangular shape corners which extend beyond the uprights of the leg members at each side of the table in cantilever fashion and upon which the seats 13 rest, the latter also advantageously being in the form of a plank of desirably somewhat greater thickness than the planks of the table. The seats 13 are laterally offset from the longitudinal side edges 31 of the table 12, the inner edge of the seat being substantially vertically aligned with the edge of the table, so that people occupying the seats, ranged along each side of the table, with their feet under the table for example, are conveniently located with respect to the latter, as in bench style.

Suitable means are provided for locking the seat to the extensions of the seat support members, such means being here illustrated in the form of clips 32 on the underface of the seats which engage the bars of the seat support member portions 28*a* snugly but releasably. As best seen in Fig. 6, each clip 32 has an attaching part 33, that is fastened as by screws 34 to the underface of the seat members 13, and a downwardly offset lip 35 between which and the seat member the bar of the seat support member enters, when the legs of the table are upright in table supporting position, the distance between a pair of such clips at one end of the seat and another pair at the other end of the seat being such that the clips engage the legs at that time.

To hold the legs in such upright position, the structure is provided with a brace rod 36 for each leg, the brace rod having a detachable connection with the table and also having a hinge connection with the leg member. Such hinge connection is here provided by the pipe coupling 22 which has a transverse portion 37 that is tapped as at 38 (Fig. 8) to receive the threaded lower end 39 of the brace rod 36 which is screwed into the socket thus provided.

At its other or opposite end the brace rod 36 has a horizontally turned extremity 40 (Fig. 7), which, when

the rod is in leg bracing position, is passed through an aperture 41 in a lug bracket 42, that is secured as by a screw 42*a* to the underface of the table 12, in this instance transversely centrally thereof as to the plank 12*b* of the table, and spaced inwardly of the ends of the table from either leg member. If desired, the rod end 40 may carry a removable cotter or locking pin 43 to secure the relationship until it be desired to detach the brace rod from the bracket lug 42 for purposes of folding the structure.

When now it is desired to fold the structure into the compact form shown in Fig. 4, the cotter pin 43, if present, is removed and the end 40 of the brace rod 36 may then be sprung out of the lug 42. Next, the seats 13, upon slight movement of the legs toward each other, may be removed from the seat support members, whereupon the legs 20 may be swung toward the table on their hinges 17—18 (Fig. 5) as indicated in broken lines in Fig. 1. At the same time, the coupling 22 may be rotated with respect to the leg members so as to extend the brace rod 36 into the plane of and as a projection of the leg members and into close proximity with the table 12. If the table, as in this instance, is of such length that the brace rods overlap in this position, the latter may be sprung slightly to one side of each other to minimize the space occupied thereby as indicated in Fig. 4. The seats 13 may then be placed on top of the table 12, and, if desired, the parts may be roped or otherwise secured in this position.

The material of the legs 20, including the seat support members 26, may be advantageously of one-half inch diameter wrought iron bar stock which is relatively inexpensive, while, at the same time, the arrangement of the legs and seat support members is such that these parts mutually reinforce each other and having a relatively high degree of strength and stability in proportion to their size and weight.

The angle which the parts 21 make with the vertical in their position inclined toward each other is desirably of the order of about 20°, and the return bend angle of the seat supporting members 26, between its parts 27—28, is of the order of about 30°.

The generally U-shape for the legs permits the brace rod to be extended to the bight thereof, thus providing enhanced stability.

By means of the threaded connection 38—39 the effective length of the brace rod 36 may be varied as by extending or retracting the rod in the socket 37, or the brace rod may be removed entirely from the socket if desired.

The leg parts 21 are advantageously held in the pipe coupling 22 and in the hinge sleeves 17 by the seat support member 26 where it is welded to the leg member parts 21, thus providing an easily assembled structure.

So constructed and arranged there is here provided a relatively light-weight and inexpensive but sturdy and compact structure of this type which may be readily assembled and disassembled and which occupies a minimum of space for transportation or storage.

The invention is not intended to be limited to details of construction shown for purposes of illustration and such changes may be made as fall within the scope of the appended claims without departing from the invention.

What is here claimed is:

1. In a folding structure of the class described, a table member, a pair of generally U-shape leg members of metallic bar stock, each leg member having its bight portion somewhat widened and flattened, a pair of seat members, an inverted generally triangular member also of bar stock carried by each of said leg members and having its sides secured to the bight portion of the leg member and having its inverted base portion widened intermedially of the height of the leg member to extend laterally beyond the leg member for providing horizontal support for the seats, a brace rod extending from the bight of a



leg member to the table, the brace rod being hingedly connected to the leg member between the ends of the seat support member, and releasable means connecting each brace rod to the table.

2. The structure of claim 1 wherein the leg member has the extremities of its legs turned horizontally and the table on its underface includes a transverse support for sleeve parts receiving the leg extremities respectively.

3. The structure of claim 1 wherein the brace rod is threadedly secured to the leg member for extensible and retractable adjustment.

4. The structure of claim 1 wherein the leg member includes a plurality of somewhat L-shape bars joined intermedially of the bight of the leg member by a pipe coupling member rotatably receiving the leg member bars and said brace rod is secured to said pipe coupling member.

5. The structure of claim 4 wherein the pipe coupling member is of T-shape and the transverse portion thereof is tapped to receive a threaded end of the brace rod.

6. The structure of claim 4 wherein the L-shape bars are inwardly offset at their ends joined by said pipe coupling and the sides of the seat support member are welded to said offsets respectively and the seat support member is welded to the L-shape leg bars where the parts intersect.

7. In a folding structure of the class described, a table member, a pair of generally U-shape leg members, each legs member having its leg upper extremities hinged to the table and having its bight portion somewhat flattened, a seat support member carried by each of said leg members and extending laterally beyond the leg member to provide horizontal supports for the seats, seats supported by said horizontal supports, and releasable means for maintaining the leg members upright.

8. The structure of claim 7 wherein there are clips on the underface of the seats which engage the seat support members.

9. The structure of claim 7 wherein a brace rod is hinged to the bight of a leg member and has releasable engagement with the table.

10. In a folding structure of the class described, a generally U-shape leg member of metallic bar stock having its leg upper extremities converging and adapted to be hinged to a table and having its bight portion somewhat widened and flattened, a seat support member carried by the leg member, said seat support member being also of bar stock and in the form of an inverted triangle having its apex secured to the leg bight and its inverted base intersecting the leg member legs and extending laterally therebeyond to provide a horizontal support for the seats, and a brace rod hinged to said leg member bight adjacent the inverted apex of the seat support member.

11. In a folding structure of the class described, a generally U-shape leg member of metallic bar stock having its leg upper extremities converging and adapted to be hinged to a table and having its bight portion somewhat widened and flattened, a seat support member carried by the leg member, said seat support member being also of bar stock and intersecting the leg member legs and extending laterally therebeyond to provide a horizontal support for the seats, and a brace rod hinged to said leg member bight.

12. In a structure of the class described, a generally U-shape leg member having its leg upper extremities turned horizontally for attachment to a table and having its bight portion flattened, a seat support member carried by said leg member and extending laterally beyond the leg member to provide horizontal supports for the seats, said seat support member comprising a return bent element engaging each leg of the leg member at spaced apart places thereon, a brace rod hinged to the bight of the leg member.

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