United States Patent

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[72] Inventor **Elmer W. Conklin**
c/o Knapp Roofing & Sheet Metal, 600 N. Erie St., P.O. Box 406, Three Rivers, Michigan 49093

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[54] **TABLE SUPPORT**
6 Claims, 5 Drawing Figs.

[52] **U.S. Cl.** **248/188.8,** 108/92, 182/181, 297/157
[51] **Int. Cl.** **F16m 11/22**
[50] **Field of Search** 248/188.8, 174; 108/92; 297/157; 182/181, 204

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Primary Examiner—Marion Parsons, Jr.
Attorney—Charles F. Voytech

ABSTRACT: A support for a picnic table designed for easy assembly and disassembly for winter storage or for compact shipping, the support comprising a pair of opposed, inclined sheet metal legs of channel cross section, with the ends and intermediate section having portions of the bottom of the channel bent into the channel parallel with one another and the ground. The lower end provides a broad foot for the leg and the upper intermediate bent portions provide supports for braces connecting and securing together the pair of legs to form a rigid frame. The intermediate brace is a single piece which passes through both legs and functions at its protruding ends as a support for benches for the table.

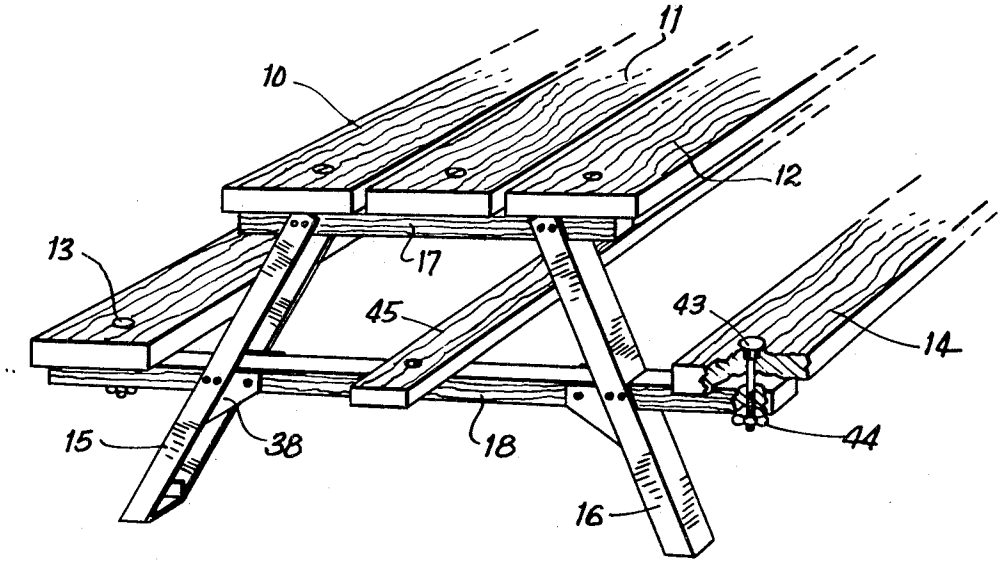


FIG. 1

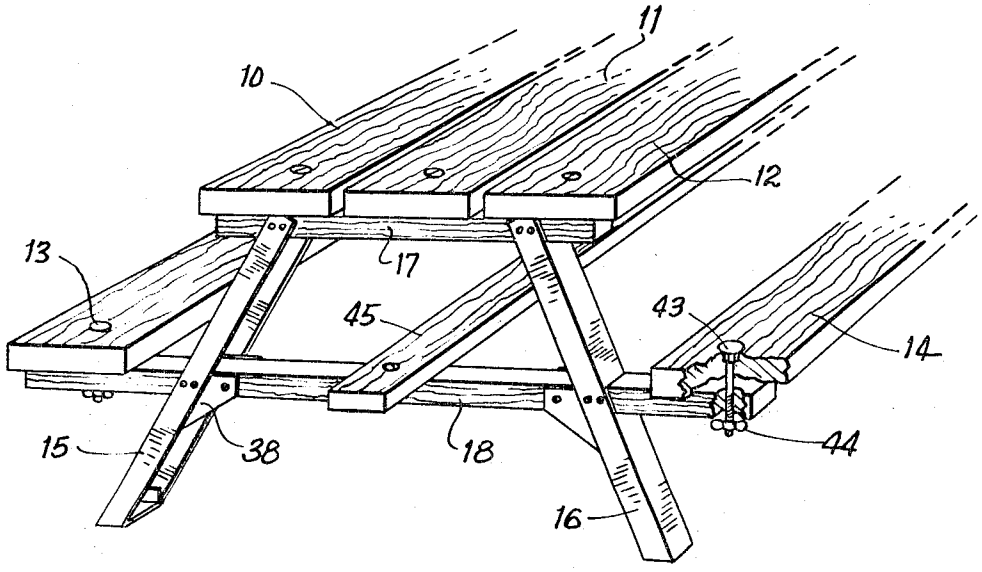


FIG. 2

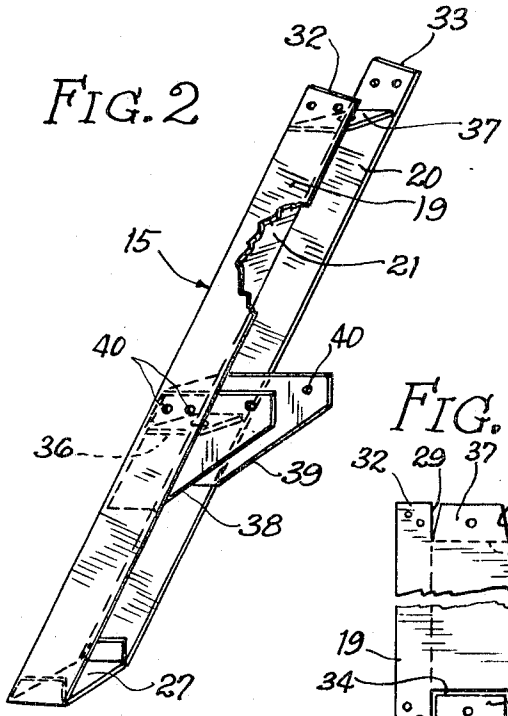


FIG. 3

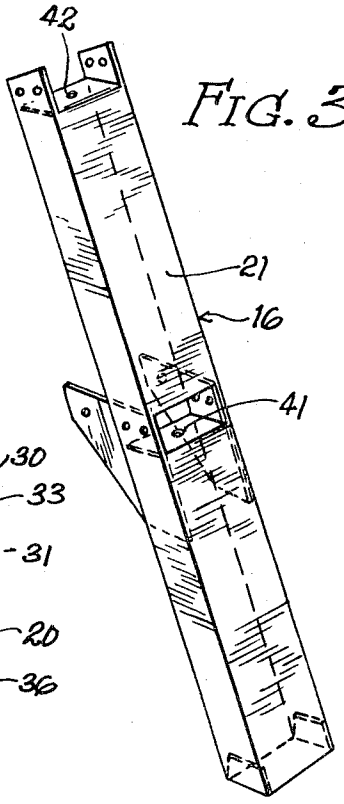
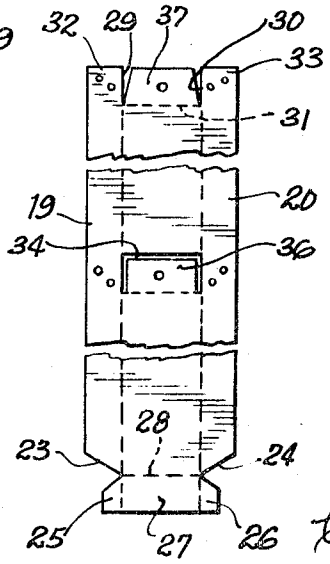


FIG. 4



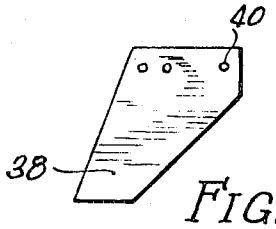


FIG. 5

INVENTOR
Elmer W. Conklin
Charles J. Vantech
Atty

TABLE SUPPORT

This invention relates to supports for tables usually placed in picnic areas for outdoor use, and particularly to table supports which are readily assembled and disassembled for storage or shipment.

Supports for picnic tables are usually made of wood and are nailed or otherwise permanently secured to the table top and benches. Because of the rough treatment to which they are subjected, both from the user and the weather, such tables are generally made of heavy planks and wooden braces which, when nailed or secured together, form a heavy, solid permanent structure capable of being left outdoors. For longer life, however, it is desireable that such tables be moved indoors into a sheltered storage area. Furthermore, the mobility of the public and its desire to enjoy picnics at different areas makes it desirable to move such tables from place to place. Neither of these objectives is achieved by the tables heretofore generally available.

Inasmuch as the table top and the benches for a picnic table are flat and can readily be stored in and of themselves in a narrow or flat space, it is the supports for the table and benches which create a storage problem and which must be in some way modified to provide a means for achieving portability. It is, therefore, an object of this invention to provide a picnic table and a support therefor, the latter being sturdy but light and readily assembled as a unit and with the top and benches of the table.

As a more specific object, this invention has within its purview the provision of a metal leg for a picnic table, said leg being made from sheet steel bent to channel shape with lower, middle and upper bent-over sections of the bottom of the channel forming, respectively, a pad for the leg and horizontal supports for the braces which hold the legs together.

These and other objects of this invention will become apparent from the following detailed description thereof when taken together with the accompanying drawings in which:

FIG. 1 is a fragmentary end elevation in perspective of an assembled table showing the legs of this invention;

FIGs. 2 and 3 are enlarged elevations in perspective of the table leg of FIG. 1 showing the inside and outside construction respectively of the leg;

FIG. 4 is a plan view on a less enlarged scale of a sheet metal blank notched and cut preparatory to bending to form a table leg; and

FIG. 5 is a side elevational view of a brace which is secured to the leg.

Referring now to the drawings for a detailed description of the preferred embodiment shown therein, the table may comprise several planks of identical size, such as 2 inches × 10 inches × 72 inches, for example, and shown at **10, 11** and **12**; two benches **13, 14** which may also be planks of 2 inches × 10 inches × 72 inches size; four identical legs, only two, **15**, and **16**, being shown; an upper brace **17**, and a lower brace **18** which extends through legs **15** and **16** to form the support for benches **13** and **14**. Braces **17** and **18** are preferably lengths of 2 inches × 4 inches lumber.

It is contemplated that the planks **10—14** will be secured to their respective supports by carriage bolts, using wing nuts to make it possible to assemble or disassemble the planks and their supports without the need of any tools. It is further contemplated that the legs and the braces **17,18** may remain assembled as a flat unit, there being two such units per table.

All four legs are identical and are comprised of galvanized sheet metal formed into channels for rigidity, each channel having substantially parallel sides **19** and **20**, and a bottom **21**. As shown in FIG. **4**, the substantially rectangular blank of sheet metal is notched at the bottom of the sides as shown at **23** and **24** to form flanges **25,26**. The bottom **27** is bent along line **28** into the channel, with flanges **25,26** bent parallel to the planes of sides **19,20**. Flanges **25,26** are then spot welded or otherwise secured to the adjacent sides **19** and **20**, and bottom **27** thus forms a pad for the leg.

The top is notched at **29** and **30** and the portion **37** between the notches is bent along line **31** into the channel parallel to pad **27** to form a horizontal support for brace **17**. The upper ends **32,33** of sides **19** and **20** remain upright to provide means for securing brace **17** to the leg. The width of the channel between sides **19** and **20** is made substantially equal to the width of brace **17**.

Approximately midway between the ends of the leg the bottom of the channel, as shown in FIG. **4**, is formed with a U-shaped slot **34**, and the portion of the bottom within the U is bent along line **35** into the channel parallel with pad **27** to form a support **36** for brace **18**. Inasmuch as brace **18** carries the weight of the people using benches **13** and **14**, additional support for brace **18** is provided by a pair of identical gusset plates **38,39** FIGS. **2** and **5**) which are located in the slot **34** between support **36** and each side **19** and **20**. Said gusset plates are spot welded or otherwise secured to said sides. Each gusset plate is formed with alined holes **40**, two of which are alined with holes **41** in the sides **19** and **20** to receive screws by which brace **18** is secured to each leg. Holes **41** and **42** are provided in supports **36** and **37**, respectively, by which said supports are secured to braces **18** and **17**, respectively.

It is contemplated that the table may not be sold completely assembled, but instead the legs may be purchased from one source, with instructions for purchasing the planks and braces from a lumber yard, and the bolts and screws from either the lumber yard or a hardware store. The purchaser will then assemble the table to the form shown in FIG. **1**, using bolts **43** (FIG. **1**) and wing nuts **44** for the planks, and wood screws for the legs and braces.

If desired, a central transverse brace **45**, of 2 inches × 4 inches lumber may be provided to brace the table lengthwise and possibly as a foot rest. Similarly, if the table is to be unusually long, an additional pair of legs (not shown) may be provided at the center of the table.

When the table has once been assembled and it is desired to disassemble it for transporting and storing it, all of the planks are removed from the top and benches by removing the wing nuts **44** and taking out the bolts **43**, leaving the legs and attached braces **17,18** as flat units to be transported and stored with the flat planks.

Although the table has been described as made from planks, the top can also be made from a single sheet of plywood, or from sheet metal suitably formed for rigidity, the metal being aluminum or galvanized sheet steel. Other modifications will suggest themselves to those skilled in the art.

I claim:

1. A table support for a picnic table or the like, said table support comprising a leg which when assembled with the remainder of the table, is inclined away from the vertical a predetermined angle, said leg comprising an elongated substantially rectangular sheet, one end region thereof comprising the base of the leg and the opposite end region comprising the top of the leg, the sides of the sheet being bent at substantially right angles to the plane of the sheet to form a channel section, the base being bent at said predetermined angle to the plane of the sheet to lie flat upon the ground, the top being bent parallel to the base to support a table top brace, and a section of the leg intermediate its end regions between the bent sides being bent parallel to said base to support a brace.

2. A table support as described in claim **1**, said base having integral flanges thereon bent into the channel at substantially right angles to the plane of the sheet and overlying the said sides of the leg, and means securing the flanges to said sides.

3. A table support as described in claim **1**, said sides extending upward on either side of said bent top region, a horizontal table top brace received between said upwardly extending sides and upon said bent top region and means for securing said upwardly extending sides to said table brace.

4. A table support as described in claim **1**, there being a U-shaped slot formed around the bent section of the leg intermediate its end regions, and a gusset plate secured to a side of the sheet bent at substantially right angles to the plane of the sheet and disposed within the sides of the slot, said brace being supported by said bent section of the leg intermediate its ends being secured to said gusset plate.

5. A table support as described in claim 4, said bent section of the leg intermediate its ends forming an opening in said leg, and said brace supported by said bent section of the leg intermediate its ends extending through the said opening in said leg to support a bench.

6. A table support as described in claim 1, said table support comprising further a second leg substantially identical with the first-mentioned leg and disposed in opposed relation to said

first-mentioned leg, said table top brace being secured to the said tops of both said legs, and said brace supported by the section of the leg intermediate its end regions comprising a single brace passing through and beyond both said leg and said second leg, said single brace being secured to both said legs and supporting benches at its ends.