

May 3, 1960

P. COHEN

2,935,210

WORK TABLE

Filed Aug. 8, 1958

4 Sheets-Sheet 1

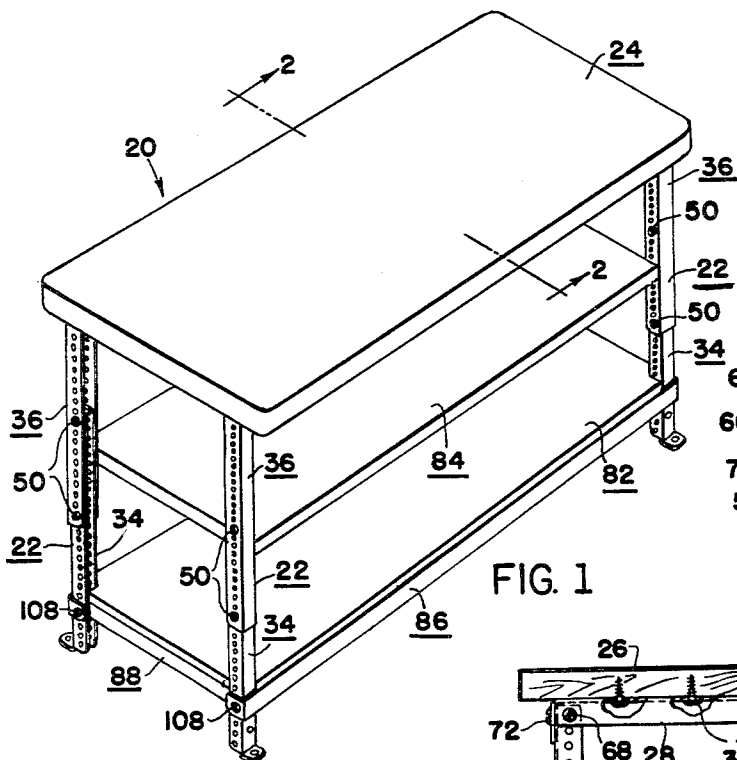


FIG. 1

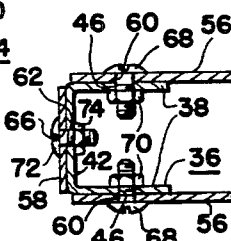


FIG. 4

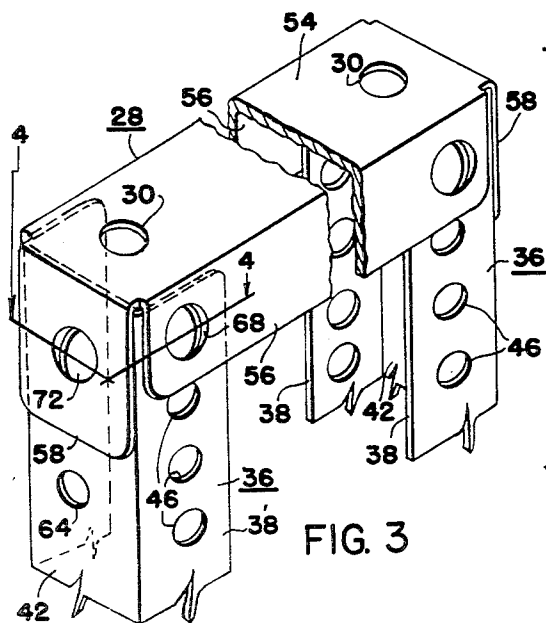


FIG. 3

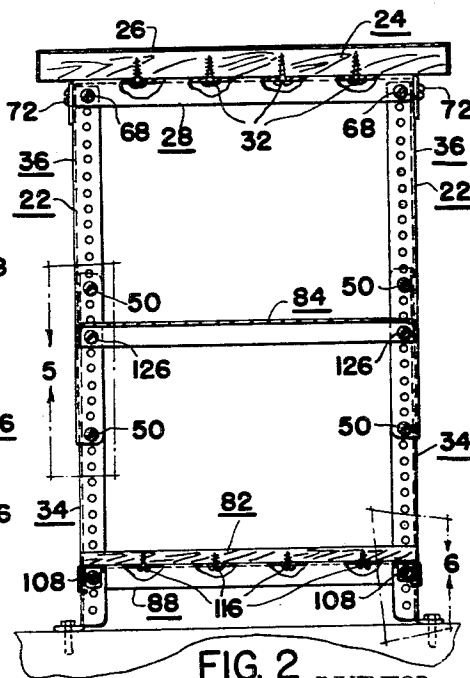


FIG. 2

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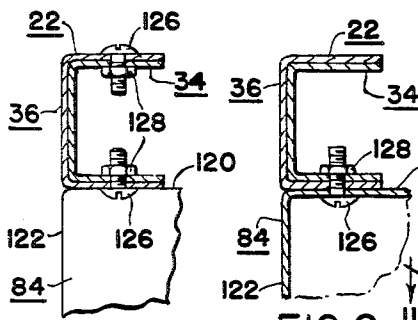


FIG. 8

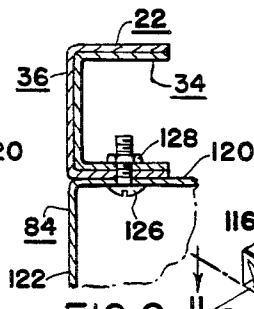


FIG. 9

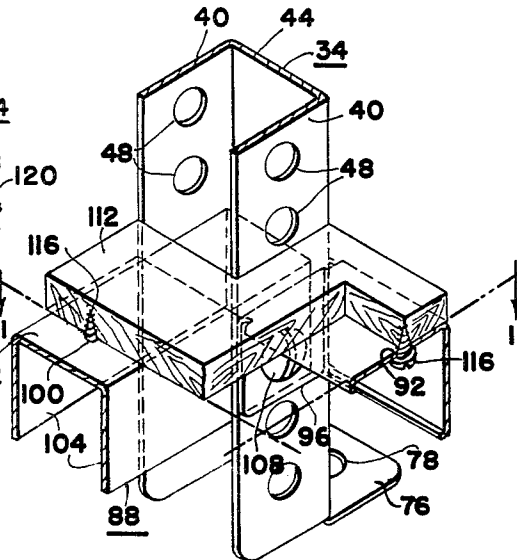


FIG. 6

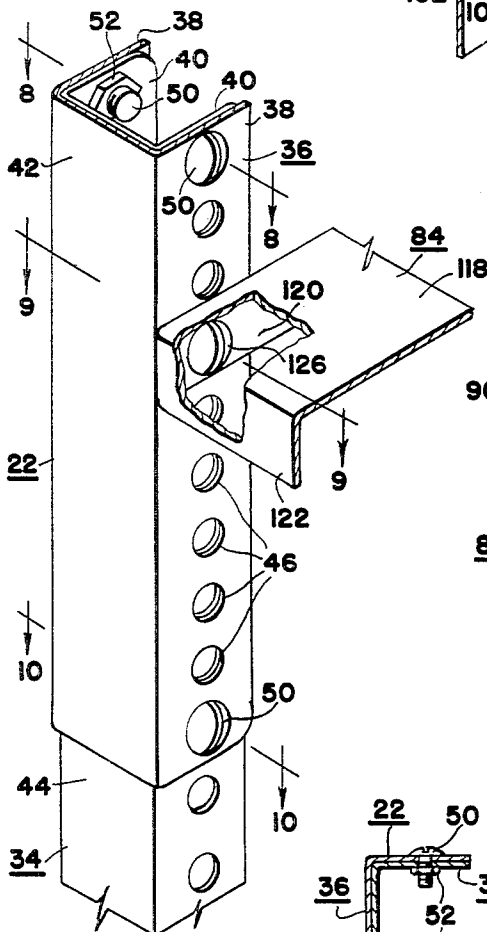


FIG. 5

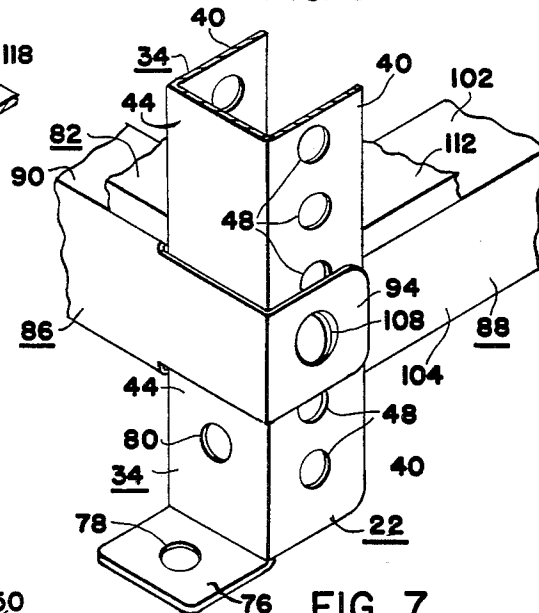


FIG. 7

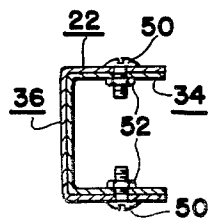


FIG. 10

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4 Sheets-Sheet 4

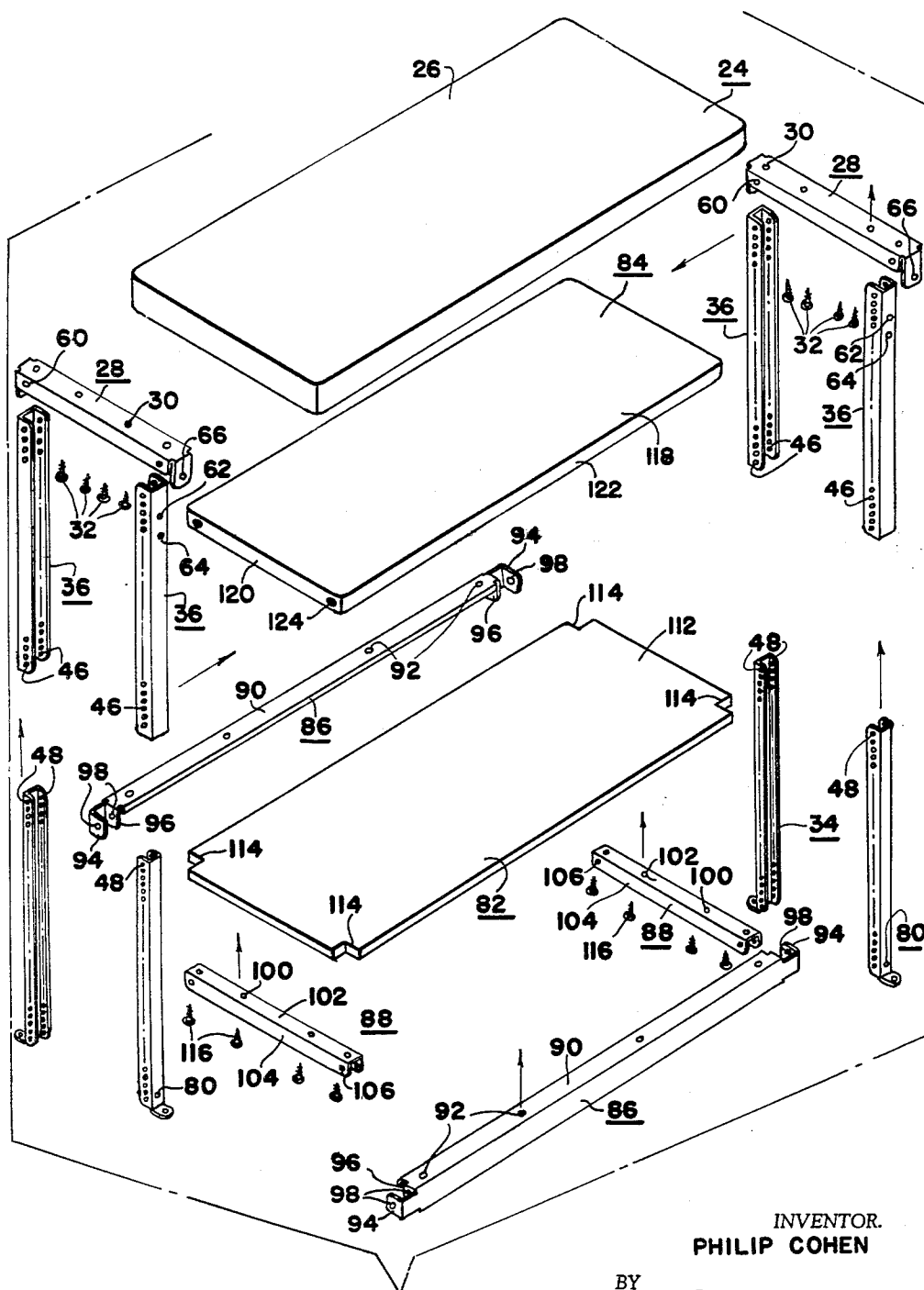


FIG. 16

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2,935,210

WORK TABLE

Philip Cohen, Philadelphia, Pa.

Application August 8, 1958, Serial No. 753,953

1 Claim. (Cl. 211—147)

The present invention is directed to a work table, and more particularly to a work table for industrial establishments whose height may be adjusted to satisfy particular requirements, and which may be readily connected up to one or more similar work tables.

There has been a long felt need in industrial establishments for a work table whose height may be adjusted to meet varying requirements, and yet which possesses a high degree of rigidity and stability notwithstanding adjustment to different height levels. Moreover, it has proved desirable for such tables to have accommodations for shelving, with the relative height of such shelving being controllable at the will of the user. In addition, it has proved desirable that such work tables be readily joined together, so that a single large working surface, such as a cutter table, may be had from a plurality of tables.

This invention has as an object the provision of a novel work table.

This invention has as another object the provision of a work table whose height may be readily adjusted, and which is rigid regardless of the relative heights of the table.

This invention has as another object the provision of a work table which may be readily coupled to similar work tables so that a work table of any desired length or width may be achieved through the coupling of a plurality of the work tables of the present invention together.

This invention has as yet another object the provision of a work table which is cheap to manufacture, and which may be readily manufactured by assembly line production techniques.

Other objects will appear hereinafter.

For the purpose of illustrating the invention there is shown in the drawings a form which is presently preferred; it being understood, however, that this invention is not limited to the precise arrangements and instrumentalities shown.

Referring to the drawings, wherein like reference characters refer to like parts:

Figure 1 is a perspective view of the work table of the present invention.

Figure 2 is a sectional view taken on line 2—2 of Figure 1.

Figure 3 is a perspective view revealing the construction of the table top support.

Figure 4 is a section taken on line 4—4 of Figure 3.

Figure 5 is an enlarged view taken along line 5 of Figure 2.

Figure 6 is an enlarged view taken along line 6 of Figure 2.

Figure 7 is a perspective view revealing the foot portion of one of the legs of the work table of the present invention and the mode of securement of a shelf to such leg.

Figure 8 is a cross-sectional view taken on line 8—8 of Figure 5.

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Figure 9 is a cross-sectional view taken along line 9—9 of Figure 5.

Figure 10 is a cross-sectional view taken along line 10—10 of Figure 5.

Figure 11 is a sectional view taken along line 11—11 of Figure 6.

Figure 12 is a fragmentary perspective view revealing the manner in which a plurality of work tables of the present invention may be coupled together.

Figure 13 is a perspective view revealing the manner in which a plurality of work tables of the present invention may be coupled together both lengthwise and side-wise.

Figure 14 is a sectional view taken along line 14—14 of Figure 13.

Figure 15 is a sectional view taken along line 15—15 of Figure 13.

Figure 16 is an exploded view of the elements forming the table of the present invention, with such elements being disposed in operative relationship to each other.

Referring to the drawings, the table of the present invention is designated generally as 20. The table 20 comprises four substantially identical legs 22 located at the corners of the table 20.

The legs 22 jointly support the table top 24. The specific construction of the table top 24 forms no part of the present invention. However, it is preferable that the table top 24 be formed of wood. If desired, the table top 24 may be provided with a surfacing ply 26 of plastic, such as Micarta or the like.

The table top 24 is carried on the legs 22 above the table top supports 28, two such table top supports 28 being provided. Thus, in the illustrated embodiment the table top supports 28 span the legs 22 across the ends of the table 20.

The table top supports 28 are provided with a plurality of openings 30 through which the wood screws 32 project, such wood screws 32 being received in the underside of the table top 24. The wood screws 32 join the table top 24 to the table top supports 28 as shown particularly in Figure 2.

Each of the legs 22 comprises a pair of telescoping channel-shaped members, namely foot member 34 and top member 36. In the illustrated embodiment, the top member 36 is somewhat larger than the foot member 34, so that its legs 38 and 38 straddle the legs 40 and 40 of foot member 34. Both the web 42 of top member 36 and the web 44 of foot member 34 are disposed parallel to the sides of the table top 24 while the legs 38 of top member 36 and the legs 40 of foot member 34 are disposed parallel to the ends of table top 24.

Both the legs 38 and 38 of top member 36 and the legs 40 and 40 of foot member 34 are provided with uniformly spaced perforations at a similar distance from their respective webs 42 and 44. Thus, the perforations 46 in the legs 38 of top member 36 extend for the full height of top member 36, and the perforations 48 in the legs 40 of foot member 34 extend for the full height of foot member 34. The perforations 46 in the legs 38 of top member 36 are aligned with each other and the perforations 48 in the legs 40 of foot member 34 are aligned with each other.

The relative height of the legs 22 is maintained by securing the top member 36 and foot member 34 together in a predetermined manner. In the illustrated embodiment, where maximum rigidity is achieved, four bolts 50 and nuts 52 are used to secure the top member 36 to the foot member 34 of each of the legs 22. Thus, as seen particularly in Figures 5 and 8 a pair of bolts 50 and complementary bolts 50 and nuts 52 are disposed in aligned perforations 46 in legs 38 of top member 36 and perforations 48 in legs 40 of foot member 34. As shown

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particularly in Figures 5 and 10, a pair of bolts 50 and complementary nuts 52 are disposed in aligned perforations 46 in legs 38 of top member 36 and perforations 48 in legs 40 of foot member 34. Preferably, the upper bolts 50 and nuts 52 are disposed in the topmost perforations 48 of legs 40 of foot member 34 while the bottommost bolts 50 and nuts 52 are disposed in the bottommost perforations 46 in legs 38 of top member 36.

The channel-shaped structure of the telescoping foot member 34 and top member 36 provides for maximum rigidity when such members 34 and 36 are secured together as above-described.

Referring particularly to Figures 3 and 4, wherein the securement of the table top supports 28 to the top members 36 at the ends of the table 20 is shown, it is seen that each table top support 28 comprises a channel-shaped member having the web 54 and opposed legs 56. At each of the ends of the table top supports there is provided a perpendicular dependent skirt 58. The dependent skirt 58 overlaps the web 42 of top member 36, and the legs 56 of the table top supports 28 overlap the legs 38 of the top members 36. The web 54 of the table top supports 28 rest above the top members 36. The openings 30 through which the wood screws 32 extend are provided in the web 54 of table top supports 28. The legs 56 of table top supports 28 are provided with openings 60 (see Figure 16) which are in alignment with the topmost perforations 46 in the legs 38 of the top member 36. The web 42 of top member 36 is provided at its uppermost portion with a pair of spaced openings 62 and 64 (see Figure 16). The skirt 58 extends over the web 42 of top member 36 intermediate the openings 62 and 64, and is provided with an opening 66 which is aligned with the opening 62 in web 42 of top member 36. As seen particularly in Figures 3 and 4, bolts 68 which are provided with complementary nuts 70 extend through the openings 60 in legs 56 of table top supports 28 and the mating uppermost perforations 46 in legs 38 of top member 36. The bolts 72 provided with complementary nuts 74 extend through the openings 66 in skirts 58 of table top supports 28 and the mating openings 62 in webs 42 of top members 36.

The bottom of foot member 34 of each of the legs 22 is preferably provided with an offset lug 76 having an opening 78. The opening 78 in lug 76 enables the table 20 to be bolted to the floor of the user, should the same prove desirable, while the lug 76 provides an increased surface on which the table 20 is rested. The web 44 of foot member 34 may be provided with an opening 80 adjacent the lug 76 and spaced a small distance above the lug 76.

A variety of shelving may be utilized intermediate the legs 22, and any desired number of shelves may be supported intermediate the legs 22. In the illustrated embodiment, a basal shelf 82, which is spaced a short height above the bottom of the table 20, and an intermediate shelf 83, which is disposed intermediate the basal shelf 82 and the table top 24 are shown, but it is to be understood that if desired a plurality of intermediate shelves 84 may be provided in the table of the present invention.

The basal shelf 82 comprises a metal frame formed of side members 86 and 86 and end members 88 and 88.

The side members 86 and 86 may comprise channel or angle-shaped members whose uppermost side 90 which is parallel to the face of table top 24 is provided with a plurality of openings 92. The end portions of each of the side members 86 are offset to provide an outside ear 94 and an inside ear 96, such ears 94 and 96 having aligned perforations 98.

The end members 88 comprise channel-shaped members which may be received intermediate the legs 40 of the foot members 34 which are spanned by the respective end member 88. Openings 100 are provided in each web 102 of each end member 88. The legs 104 of each

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end member 88 are provided with mating aligned openings 106 at the ends of the end members 88.

As seen particularly in Figures 6, 7, and 11, for any given outside ear 94, juxtaposed leg 40, and juxtaposed leg 104, a bolt 108 extends through the aligned openings 98, 48, and 106. For any given inside ear 96, juxtaposed leg 40, and juxtaposed leg 104, a bolt 108 extends through the aligned openings 98, 48, and 106.

The shelf top 112 may comprise a generally rectangular wooden board having notched ends 114. The shelf top 112 is carried on the sides 90 of the side member 86 and on the webs 102 of end members 88, and is secured to the side members 86 and the end members 88 by wood screws 116 which extend upwardly through the openings 92 in side 90 and the openings 100 in web 102.

The intermediate shelf 84 may comprise a unitary member, such as an inverted dish-shaped member having a rectangular top 118, end flanges 120, and side flanges 122. The end flanges 120 may be provided with openings 124 through which bolts 126 having complementary nuts 128 may be passed. In the illustrated embodiment the intermediate shelf 84 is disposed in the region of overlap of the foot member 34 and top member 36, namely between the upper bolts 50 and the lower bolts 50 (see Figure 5, in particular). Thus, the bolts 126 pass through the end flanges 120 of intermediate shelf 84 and also through the juxtaposed legs 38 of top members 36 and legs 40 of foot members 34 (see Figure 9).

The tables 20 of the present invention may be aligned in end to end disposition. This is readily accomplished, as seen in Figure 12, by the use of studs 130 having threaded ends. Such studs 130 may be passed through aligned openings in the legs 22 which are apposite each other. The studs 130 are preferably provided with four nuts 132 per stud 130, with a nut 132 disposed on the stud 130 juxtaposed to each face of the leg 22 through which the threaded end of the stud 130 passes. By joining the apposite legs at both of the corners of adjoining tables, a rigid structure may be achieved. If desired, a plurality of studs 130 may be used to join each apposite pair of legs 22.

Figure 13, 14, and 15 reveal the tables 20 of the present invention secured together both in end to end disposition and in side by side disposition. In order to secure the tables together in end to end disposition, studs 130 and nuts 132 may be used as has heretofore been explained in reference to Figure 12 (see in particular Figure 15).

In order to join the tables 20 in side by side disposition a stud 134 and nuts 136, which generally resemble the stud 130 and nuts 132 heretofore described, is used. The stud 134 may be passed through the opening 64 in the web 42 of top member 36 of each leg 22, and/or may be passed through the opening 80 in web 44 of foot member 34. In this manner, the tables 20 may be joined together to make as massive a table top as is desired.

The present invention may be embodied in other specific forms without departing from the spirit or essential attributes thereof and, accordingly, reference should be made to the appended claim, rather than to the foregoing specification as indicating the scope of the invention.

I claim:

A work table comprising a generally rectangular table top, legs at each of the corners of said table top, each of said legs comprising a pair of nesting channels, the webs of said channels being parallel to the longer sides of said table top, the legs of said channels having uniformly spaced aligned openings along the entire height of said channels, bolting means for securing the nesting channels rigidly together extending through openings in the legs of said channels, the webs of each of said channels including aligned openings whereby said work table may be bolted side by side to a similar work table by

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bolting means extending through the aligned openings in the webs of the channels forming the legs, a pair of table top supports, each of said table top supports straddling a pair of end legs, said table top supports comprising a channel whose web is uppermost and whose legs are juxtaposed to the legs of the upper channels of the legs of the table, dependent skirts at the ends of each web of each table top support, said skirts being juxtaposed to the webs of the adjacent channels of the table legs, openings in the legs and skirts of said table top supports which are aligned with the openings in the legs and webs of the upper channels of the table legs, bolting means joining said table top supports and the upper channels of the table's legs, said bolting means extending through the aligned openings of said table top supports and upper channels of the table's legs, the webs of said table top supports having spaced openings along their lengths, means for securing the table's table top to said table top supports extending through the openings in the webs of said table top supports, an offset lug at the bottom of each of the lower channels of the table legs, said offset lug extending from its channel's web opposite to the legs of said channel, an opening in each of said lugs for en-

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abling the work table to be bolted to a supporting surface, at least one shelf directly bolted to the openings in the legs of the channels of the table's legs, side members and end members joining the table legs together, said side members and end members being bolted to the legs of the channels of the table legs, said side members and end members having horizontally disposed sides, openings in said horizontally disposed sides, a shelf carried on said side members and end members and bolting means extending through the openings in said horizontally disposed sides securing said last mentioned shelf to said side members and end members.

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