Dec. 7, 1954 M. HIMELSON 2,696,415

IMPROVED KNOCKDOWN LEG CONSTRUCTION FOR DRAFTING TABLES

Filed June 21, 1951 2 Sheets-Sheet 1

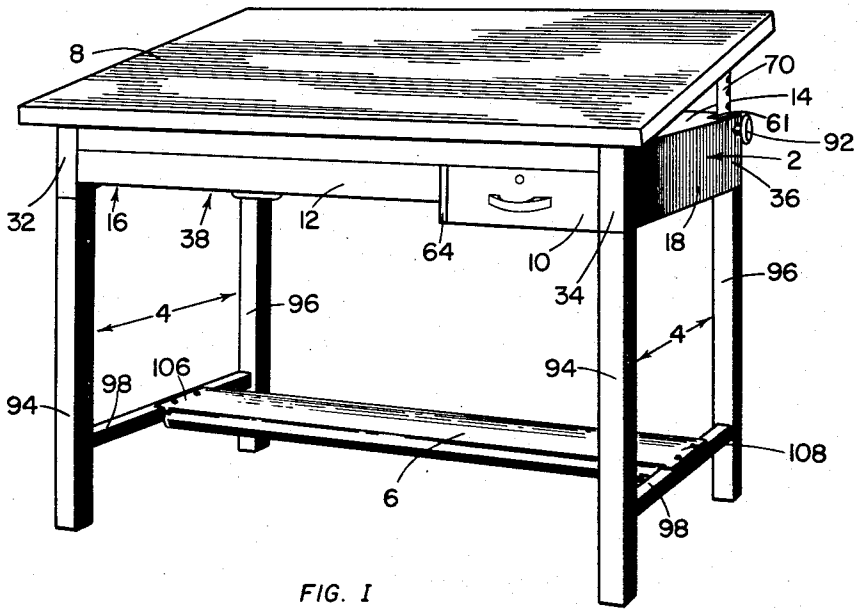


FIG. I

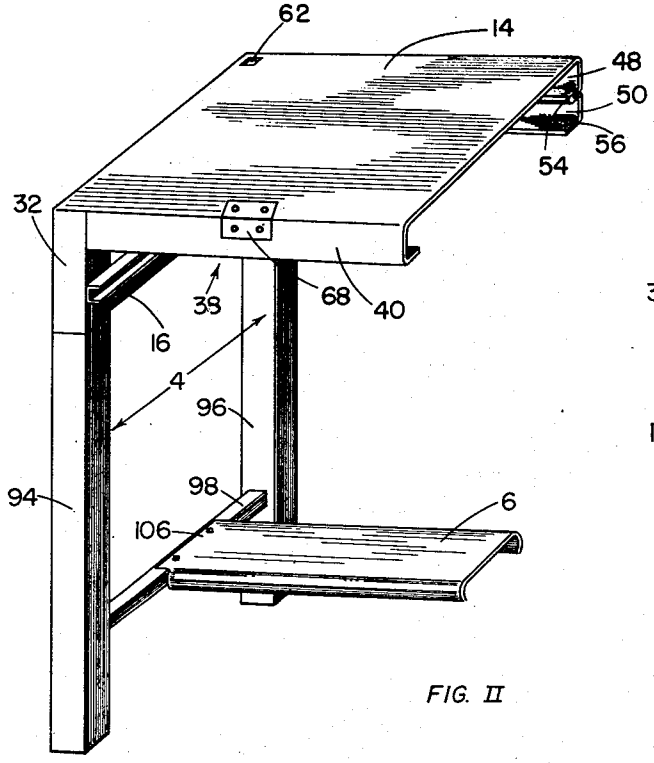
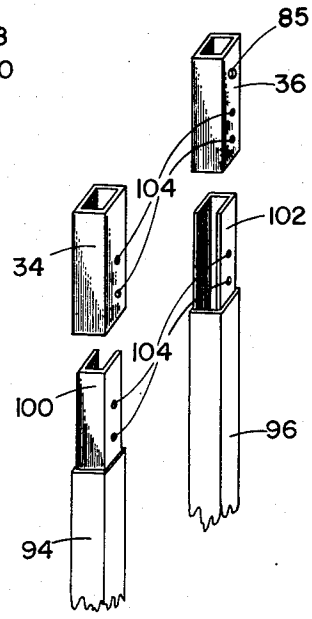


FIG. II



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Dec. 7, 1954 M. HIMELSON 2,696,415

IMPROVED KNOCKDOWN LEG CONSTRUCTION FOR DRAFTING TABLES

Filed June 21, 1951 2 Sheets-Sheet 2

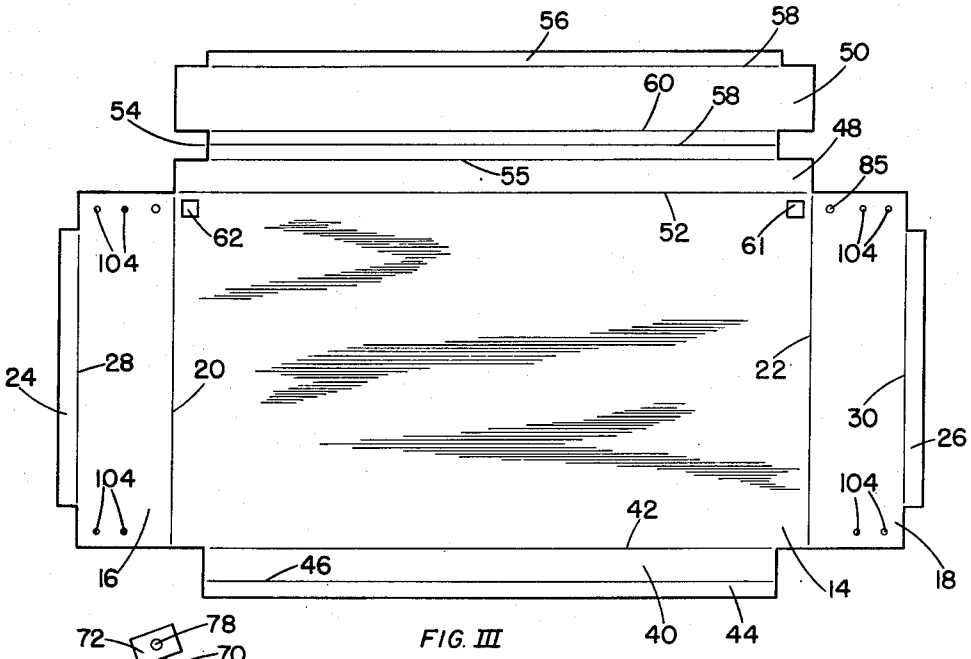


FIG. III

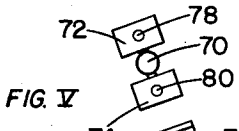


FIG. V

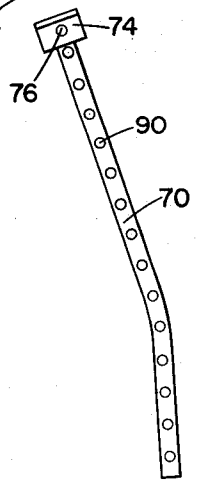


FIG. IV

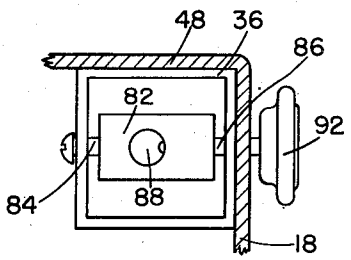


FIG. VI

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IMPROVED KNOCKDOWN LEG CONSTRUCTION FOR DRAFTING TABLES

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Application June 21, 1951, Serial No. 232,733

1 Claim. (Cl. 311—38)

This invention relates to drafting tables. In particular, it relates to drafting tables made of sheet metal which are usually provided with a wooden drawing board.

Prior art drafting tables of this type have been made of many steel parts joined together by a large number of bolts and nuts. This type of table is ordinarily shipped in a disassembled condition in order to save shipping space and considerable work was necessary on the part of the customer to assemble the old tables because of the large number of parts. The bolts and nuts provided a large number of places at which the table could become loose, thus making it difficult to keep the table rigid as is necessary in accurate drafting work.

The principal object of the present invention is to provide a sheet metal drafting table made up of a minimum number of steel parts which are rigidly held together by a few metal screws or the equivalent.

Another object is to provide a sheet metal drafting table which can be readily shipped in the form of a few large flat parts and which can be easily assembled after shipment.

A third object of the invention is to provide a sheet metal drafting table of increased sturdiness, rigidity and stability.

These objects and the means for their attainment will be more fully understood by reference to the following description taken in conjunction with the accompanying drawing, in which:

Fig. I is a view in perspective showing the improved sheet metal drafting table.

Fig. II is a view in diagrammatic perspective partly exploded and partly in section to show the construction of the improved sheet metal drafting table.

Fig. III is a view in plan showing the developed piece of sheet metal for making up the top of the drafting table.

Fig. IV is a view in enlarged side elevation showing the rod used for supporting the drawing board.

Fig. V is an end view of the rod with attached ears as shown in Fig. IV.

Fig. VI is a view in enlarged plan of one of the short lengths of tubing carrying the means for clamping the rod.

Referring to Fig. I, the improved drafting table has a unitary top 2 supported at a convenient height by the two unitary supports 4. The foot rest 6 extends between the unitary supports 4. The drawing board 8 is carried by the unitary top 2. A tool drawer 10 and shallow drawer 12 are provided in the unitary top below the drawing board 8.

The unitary top 2 is made from a piece of sheet metal cut as shown in Fig. III. In making the unitary top 2, the sides 16 and 18 are bent downward to make right angles with the upper surface 14 by bending along the lines 20 and 22. The lips 24 and 26 are bent inward at lines 28 and 30 for strengthening purposes. The lips 24 and 26 are shortened at each end so as to make room for the short pieces of metal tubing 32, 34, 36 and 38 shown in Figs. I and II. The front 40 is also bent downward along line 42 to make a right angle with the upper surface 14 and is shortened at the ends as shown to make room for the short pieces of metal tubing 32 and 34. The front lip 44 is bent inward along line 46 to strengthen against bending.

The back of the unitary top 2 is made up in two portions, the upper back 48 and the lower back 50. The upper back 48 is bent downward along line 52 to make a right angle with the upper surface 14. The lower back 50 is coplanar with the upper back 48 but a reverse bend 54 is provided between the upper back 48 and lower back 50 for stiffening purposes by bending inward along line 55 to form a 90° angle, bending backward along line 58 through a 180° angle and bending downward along line 60 through a 90° angle. The back lip 56 is provided for additional stiffening by bending inward along line 58. The back lip 56 and the reverse bend 54 are both shortened at the ends to make room for the short pieces of metal tubing 36 and 38. Openings 61 and 62 are provided in the upper surface 14 for the inclination adjustment.

After bending the sheet metal piece as described, the sides 16 and 18 are joined to the upper back 48 and lower back 50 along their adjacent edges, preferably by welding. Any excess welded metal is ground away to form smooth corner edges. The short lengths of metal tubing of rectangular cross-section 32, 34, 36 and 38, preferably steel tubing of square cross-section, are joined into the corners of the bent sheet metal structure, preferably by welding, to form the complete unitary top 2. Additional structure may then be added (preferably also by welding) such as the drawer partition 64, rails for the drawers, as for example, the rail 66 and a reenforcing beam not shown. The reenforcing beam could, for example, be welded to the under side of upper surface 14 and situated diagonally between the left hand side 16 and the drawer partition 64.

The drawing board 8 may be fastened to the front of the unitary top 2 by a pair of hinges one of which 68 is shown in Fig. II. The back edge of the drawing board 8 may be raised and lowered by means of rods 70 passing through the holes 61 and 62 and into the short lengths of metal tubing 36 and 38. The upper ends of the rods 70 are provided with ears 72 and 74 as shown in Figs. IV and V. The ears 72 and 74 may be conveniently made from short pieces of angle iron and joined to the rod by a bolt or rivet 76 passing through both ears 72 and 74 and the rod 70. The upper parts of the ears 72 and 74 may be provided with screw holes 78 and 80 for fastening the drawing board 8 to the rods 70.

As shown in Fig. VI, a short length of heavier rod 82 is mounted in each of the short lengths of tubing 36 and 38 for rotation about a horizontal axis. This mounting may be accomplished simply by screws 84 and 86 passing through holes in the walls of the metal tubing 36 and axially threaded into the short length of heavier rod 82. For example, screw 86 passes through hole 85 shown in Fig. II and in Fig. III. A hole 88 for the rod 70 is provided in the short length of heavier rod 82. The screw 86 is long enough to extend into the hole 88 for engaging the rod 70. Spaced recesses 90 are provided in the rod 70 as shown for engagement by the screw 86. A hand knob 92 is provided on the screw 86 for easy turning when locking or unlocking the rod 70. The drawing board 8 may be adjusted in this manner to any inclination determined by one of the recesses 90. The rod 70 is bent as shown so that it will fit into the metal tubing 36 and down into the leg 96 without touching the walls thereof for all adjustments of the inclination of the board. Although the description of the adjusting means has been limited to that on the right hand side of the table, it will be understood that an equivalent means is provided on the left hand side.

As shown in Figs. I and II, each of the unitary supports 4 is made up of legs 94 and 96. The legs 94 and 96 are made up of metal tubing of rectangular cross-section or the equivalent and are preferably steel. The cross-section of the lengths of metal tubing 94 and 96 making up the legs is preferably square and equal to the cross-section of the short lengths of metal tubing 34 and 36. A crosspiece 98 which may also be a piece of metal tubing (preferably steel) and which may be of smaller cross-section than the legs 94 and 96 is joined at each of its ends to each of the legs 94 and 96 preferably by welding.

Each of the unitary supports 4 is made up of two legs 94 and 96 and the cross piece 98. Channels 100 and 102 shown in Fig. II are provided to join each of the unitary supports 4 to the unitary top 2. The channels

100 and 102 fit in the upper ends of the lengths of metal tubing 94 and 96 making up the legs and in the embodiment shown are permanently secured therein preferably by welding. The channels 100 and 102 also fit in the short lengths of metal tubing 34 and 36 provided at the corners of the unitary top 2. Matching holes 104 are provided in the sides 16 and 18 (Fig. III) and in the short lengths of metal tubing 34 and 36 and in the channels 100 and 102 (Fig. II). After the channels 100 and 102 are inserted in the short lengths of tubing 34 and 36, the unitary support 4 is removably secured to the unitary top 2 by metal screws inserted in the matching holes 104.

The foot rest 6 is made from a strip of sheet metal preferably steel bent to the cross section shown in Fig. II and provided with ears 106 and 108 for fastening to the cross pieces 98. Matching holes are provided in the ears 106 and 108 and in the cross pieces 98 and after the unitary supports 4 have been secured to the unitary top 2, screws are inserted in these holes to firmly secure the foot rest to the unitary supports. The foot rest also serves to strengthen the construction.

It will be appreciated from the above description that the new sheet metal drafting table is strong, comparatively simple to manufacture and may be readily assembled after shipping.

Having thus described the invention, what is claimed is:

A drafting table comprising a unitary top of sheet metal including a short length of metal tubing of rectangular cross section secured in a vertical position at each corner, two unitary supports each of which comprises two vertical legs joined together by a horizontal crosspiece, each of said vertical legs being made up of a length of metal tubing of rectangular cross section, a metal channel fitting closely in the upper end of each length of metal tubing which makes up one of said legs and also fitting closely into one of said short lengths of metal tubing at each corner of said unitary top, each of said metal channels being welded to one of said lengths of metal tubing in which it fits and being removably secured to the other of said lengths of metal tubing in which it fits by metal screws so that said unitary supports are firmly attached to said unitary top by means of said metal channels in such manner that they may be removed.

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