Aug. 28, 1923. 1,466,138

C. F. MEILINK

FURNITURE

Filed July 12, 1918 2 Sheets-Sheet 1

FIG. 1

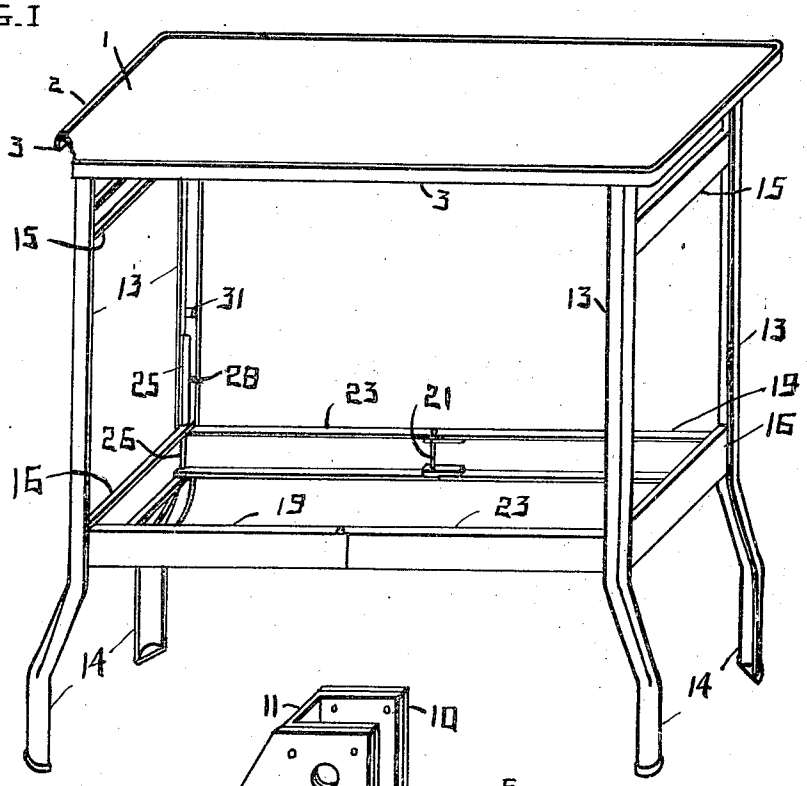


FIG. 2

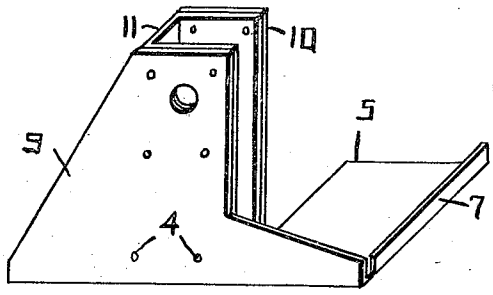


FIG. 3

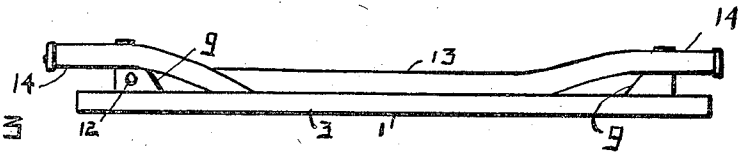
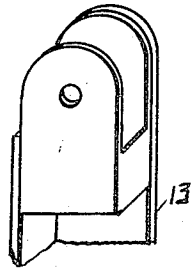


FIG. 4



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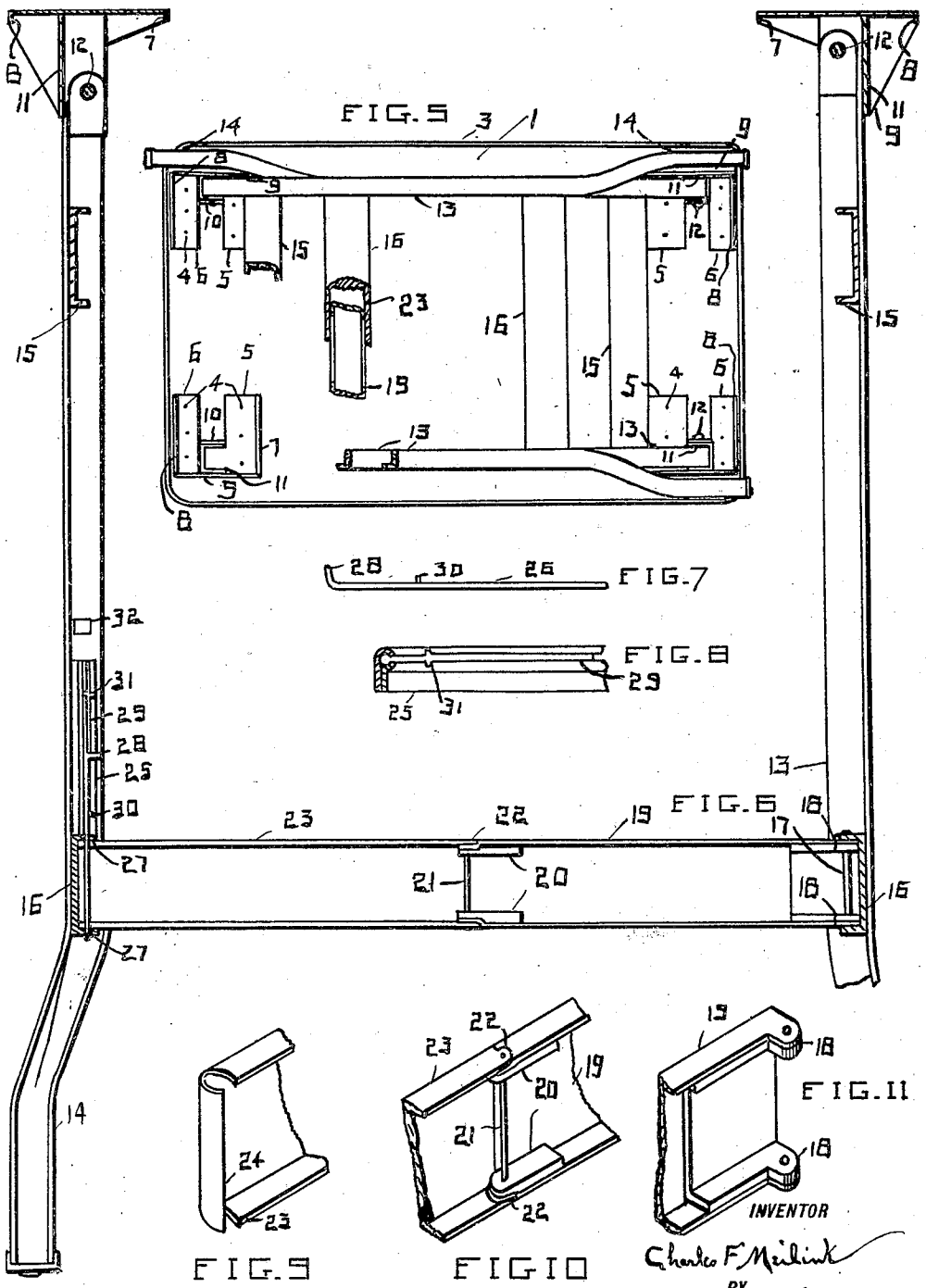


FIG. 9

FIG. 10

FIG. 11

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Patented Aug. 28, 1923. 1,466,138

UNITED STATES PATENT OFFICE.

CHARLES F. MEILINK, OF TOLEDO, OHIO.

FURNITURE.

Application filed July 12, 1918. Serial No. 244,535.

To all whom it may concern:

Be it known that I, CHARLES F. MEILINK, a citizen of the United States of America, residing at Toledo, Lucas County, Ohio, have invented new and useful Furniture, of which the following is a specification.

This invention relates to platform structures, especially inseparable collapsible unit devices.

This invention has utility when incorporated in sheet metal tables, for instance. tables for surgical use, as it may be given an enamel finish to render sanitary, while it is of great strength and of light weight thus making it a practical device having inherent practical advantages for compact ready transport, as in war medical service.

Referring to the drawings:

Fig. 1 is a perspective view, with a fragment broken way, of a sheet or wrought metal surgical table embodying features of the invention;

Fig. 2 is a perspective view on an enlarged scale of one of the leg or support mounting brackets or pivot bearings carried on the underside of the table top or platform for the article of furniture;

Fig. 3 is a side elevation of the table collapsed;

Fig. 4 is a perspective view of the upper portion of a support or table leg;

Fig. 5 is a bottom plan view, with parts broken away, of the table in collapsed position;

Fig. 6 is a fragmentary elevation, on an enlarged scale from the inside of one leg of each end pair, with the foldable connecting brace;

Fig. 7 is a view of the foldable brace locking pin;

Fig. 8 is a detail view of the guide for the pin of Fig. 7;

Fig. 9 is a detail of the foldable brace end or hook to be engaged by the locking pin;

Fig. 10 is a view of the medial hinge or joint of the foldable brace; and

Fig. 11 is a view of the fixed or permanent bearing end of the foldable brace.

The table top 1 may be of sheet metal, and for surgical use is preferably white enamel finished and provided with a slight rise or upstanding peripheral bead 2 and a downwardly extending flange or skirt 3 therefrom. Spot welds 4 mount the flat base portions 5, 6, in fixed position against removal from the table top, while low upstanding flanges 7, 8, insure the base portions from buckling action at the weld heating or from load strains, thus keeping distortion from such source being transmitted to the table top proper. Further stiffening of these leg or support brackets is had by the main flange 9 between the flanges 7, 8. Parallel to flange 9 is the tongue 10 bent from between the portions 5, 6. A three-sided box element 11 is electric welded to flange 9 and tongue 10. This completes a rigid bearing bracket for pivotally mounting, by pin 12, angle metal legs or supports 13, which when set up extend vertically downward to outwardly offset bases or terminal portions 14. These legs 13 adjacent the portions 14 preferably merge into rounded form at an offset angle of approximately 45° so that in collapsing the straight upper portions of the legs 13 may rest one pair upon the other, as one pair has its pivotal connection further away from the underside of the table top than the other pair of legs 13. Thus the shorter bracket mounting allows that pair of legs to fold adjacent the table top, when folding parallel thereto with the other pair of legs thereagainst, while the offset portions 14 of the four legs will clear the leg mounting brackets and may still protrude a minimum distance beyond the table top when the table top is of a dimension such as shown 18″ x 30″.

In this oblong type of table top, the end legs are grouped as separately hinged pairs, each pair being a stiffened unit as rigidly held by the upper fixed channel braces 15 and the lower fixed channel braces 16. One end of each channel 16 in a leg 13 has rivet or fixed non-removable pin 17 passing through the stiffened ears 18 of section 19 as an element of a foldable channel brace. Remote from the ears 18, channel brace section 19 carries reinforced bearing portions 20 for fixed hinge pin 21 providing a medial fold or joint engaging ears 22 of a second channel element 23 of the foldable brace. This brace is so proportioned that in collapsed position it will fold into the channel 16 to which it is pivoted. The channels 15, 16, are conveniently spot welded to the legs 13. The remote or free end of foldable brace section 23 terminates as to its web in a long hook 24 for snug fitting throughout its extent against the end of brace 16 not carrying rivet 17. Such leg 13 at this point carries over the

channel 16, a guide 25 for a pin 26, which when thrown downward, passes through openings 27 in the flanges of the brace 16 and through the hook 24. The snug long contact bearing between pin 26, hook 24 and channel 16, afford rigid set up locking means in maintaining straight line assembly position for the foldable brace 19, 23, in which the spaced bearings at pin 21 and rivet 17 assist. In this locking, the legs 13 are swung back into the bearing boxes 11, with no warping strain upon the table top proper. The table top lends stiffness to the assembly only in the spacing of the legs or supports. Vertical rigidity against distortion strains is all cared for in the rigidly braced terminal pairs of legs and the low space maintaining foldable braces 19, 23.

To knock down, the angle end 28 of pin 26 is guided upward in the slot 29 of the guide 25. When withdrawn clear of upper opening 27, or rather clear of hook 24, an angular shifting of the pin 26, will throw stud 30 thereof into side holding notch 31, against return to holding position. A lug 32 on leg 13 precludes complete withdrawal of the pin 26. With pin 26 clear of brace section 23, it may be folded against section 19, with the flanges toward each other, and these two sections swung into the brace 16, and the leg pair more closely mounted to the top 1, swung thereagainst, and then the other pair swung down thereover. Accordingly there is a compact and complete knock-down article of light rigid furniture with no element thereof disconnectable for loss in normal handling.

What is claimed and it is desired to secure by Letters Patent is:

1. A sheet metal furniture structure comprising a platform, sustaining means therefor in unitary assembly therewith in set up and in knock down condition and including two pairs of supports, bracing means between the supports and connected thereto independent of the platform, and means pivoting one pair of supports further from the platform than the other pair thereof.

2. A metal furniture structure comprising a platform, sustaining means therefor embodying pairs of supports hinged thereto, and bracing means independent of the platform swingably connected to the supports against separation therefrom for locking the supports against pivotal movement as to the platform, one pair of said supports extending beyond the mounting of the other pair of said supports as the pairs of supports are swung against the same side of the platform in knock down condition.

3. A knock down metal furniture unit comprising a platform, two pairs of brackets fixed thereto, one pair of said brackets having bearings a different distance from the platform than the other pair, inwardly foldable supports carried by the bracket bearings, bracing means connecting the supports in pairs corresponding to said brackets, and additional locking and bracing means hinge mounted to the supports and coacting to maintain the supports in set up position.

4. A sheet metal table comprising a top, four brackets in a rectangular group fixed to the underside of the top, supports pivotally connected to the brackets and having the lower ends flaring outwardly to clear one bracket when swung from another bracket and bracing means connecting the adjacent supports as two unitary pairs for swinging on their pivotal connections to the table top.

5. A collapsible table comprising a table top of peripherally flanged sheet metal, foldable legs therefor provided with stiffening means including a channel brace having a terminal hook, a perforated lug carrying seat in a leg, and a pin operable through the seat lugs for detachably connecting the hook to a leg.

6. A metal furniture structure platform, foldable sustaining means therefor including pairs of supports pivotally connected to the platform, a rigid channel brace fixed between the supports of a pair independently of the platform, and a channel brace outwardly foldable from said brace for detachable connection to another pair of supports.

In witness whereof I affix my signature.

CHARLES F. MEILINK.