Jan. 19, 1954 M. D. McCORMICK 2,666,682

FOLDING TABLE WITH CROSS-LEGS

Filed July 10, 1950

FIG. 1.

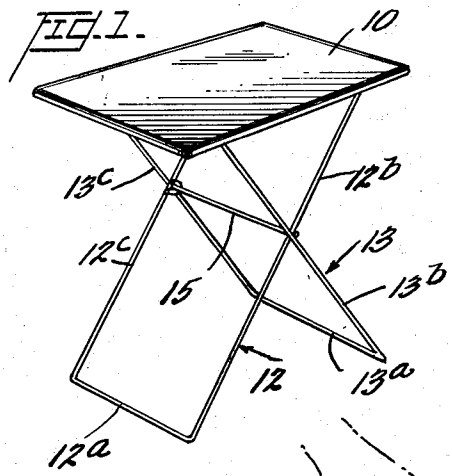


FIG. 2.

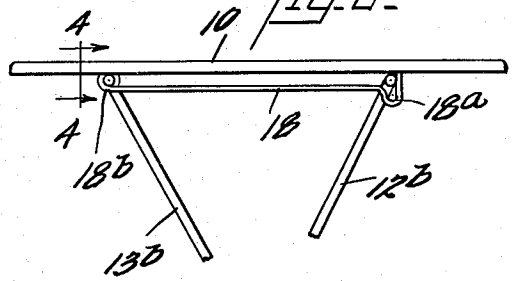


FIG. 3.

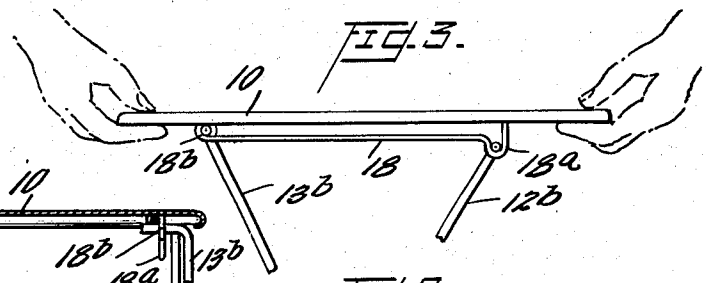


FIG. 4.

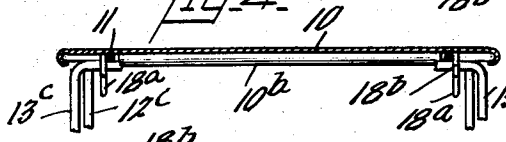


FIG. 5.

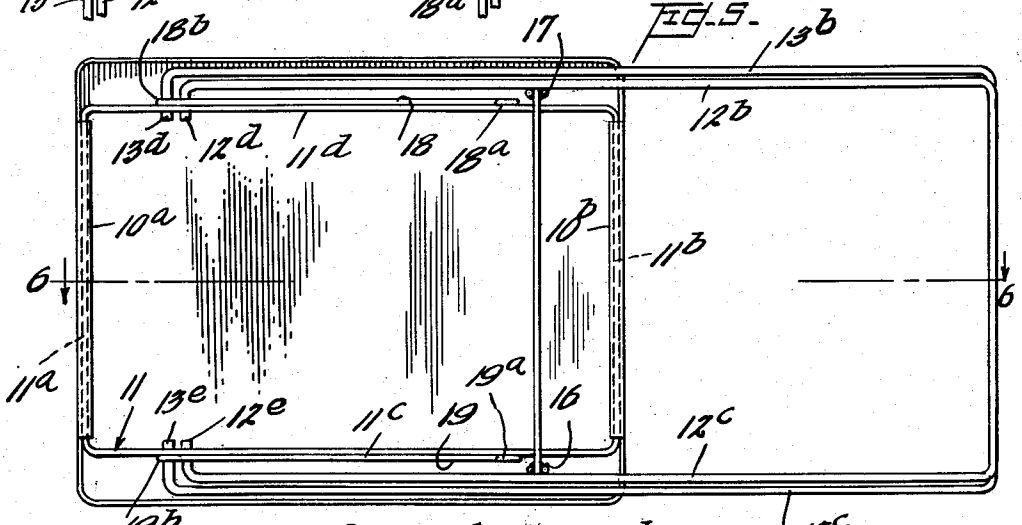
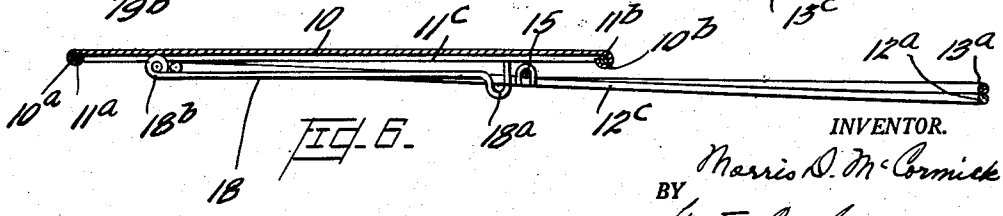


FIG. 6.



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FOLDING TABLE WITH CROSS LEGS

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2 Claims. (Cl. 311—83)

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This invention relates to furniture and particularly to folding tables of small size and light weight and well adapted for occasional use on lawns, terraces, porches and in homes, for supporting small objects.

The advantage of the folding table, which may be stored in small space and quickly erected when needed, is well known and many types and designs of tables of this character have heretofore been suggested and placed in use. In accordance with the present invention a table is provided in which the effective table top comprises a rectangular sheet of thin gauge metal and the foldable table top supporting means includes as one of its principal elements a table top engaging frame, two parallel terminal strips or margins of the table top being curved downwardly and around two parallel members of this supporting frame and the top and foldable supporting means being thus permanently connected in a simple but thoroughly effective manner. Those portions of the table top engaging and stiffening frame of the foldable supporting means which are encircled by the curved margins of the top comprise stiffening elements after such assembly has been effected, making it possible to utilize, in forming the top, a relatively light weight sheet of metal the resulting top having, however, sufficient mechanical strength for all ordinary purposes. Likewise the two remaining portions of the top engaging frame which directly contact with the undersurface of the top, serve to support the top and hold it against downward flexure, the net result being that a table of very great strength but of light weight is obtained.

In the accompanying drawings one embodiment of the invention is illustrated by way of example. It will be appreciated by those skilled in the art, however, that, without departure from the invention, minor changes in the design and arrangement of its several elements may be effected.

In the drawings:

Figure 1 is a perspective view of the table;

Figure 2 is a side elevation of the upper portion thereof;

Figure 3 is a similar view, the parts of the foldable supporting means being shown in the positions which they occupy when the table as an entirety is suspended by its top;

Figure 4 is a section on line 4—4 of Figure 2;

Figure 5 is a bottom plan view of the table, the supporting means being shown in folded condition; and

Figure 6 is a section on line 6—6 of Figure 5.

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The table top 10 is preferably rectangular and, as heretofore stated, is fabricated of light gauge sheet metal, attractively painted, enameled or otherwise coated. Its margins are preferably turned downwardly and inwardly to constitute stiffening beads and two of these margins, disposed at its opposite ends, comprise means for securing the table top to the foldable support, as will hereinafter be made clear. Thus the foldable support for the table includes as one of its principal members a rectangular frame 11 of heavy wire or like material, the width of this frame being somewhat less than the width of the table top 10 but the length thereof being substantially the same as that of the table top. Parallel end elements 11*a* and 11*b* of the frame 11 are encircled by the downwardly and inwardly curved margins 10*a* and 10*b* of the top 10, as most clearly shown in Figure 6, this frame thus being securely attached to the top 10 and the end edges of the top being substantially stiffened by the elements 11*a* and 11*b*.

The longitudinally extending elements 11*c* and 11*d* of the frame 11 are disposed parallel to each other and directly underlie and engage the lower surface of the table top, comprising longitudinally extending top supporting members as well as functioning as elements to which the folding legs of the support are attached.

The folding support comprises, in addition to frame 11, two generally rectangular frame-like legs 12 and 13 each having a floor engaging portion slightly wider than the table top engaging and supporting frame 11, and two parallel elongated portions adapted to transmit, when the table is erected and in operative position, the weight of the top and articles supported thereon to the floor or ground engaging portion. This last mentioned portion of the leg member 12 is indicated at 12*a* and the corresponding element of the leg member 13 is indicated at 13*a*. The elongated upright elements of the leg members are indicated at 12*b* and 12*c* and 13*b* and 13*c* respectively. To one of these leg members is welded or otherwise firmly attached a cross-brace 15 and the ends of this cross-brace 15 pass through and are rotatably retained within loops or eyelet members 16 and 17 welded or otherwise suitably secured to the second leg member, the result being that the two leg members 12 and 13 may be relatively rotated about the axis of the cross-brace 15 from the positions in which they are shown in Figure 1 of the drawings into substantial parallelism with each other, as shown in Figures 5 and 6 of the drawings.

The upper ends of the upright elements 12b and 12c of the leg member 12 are inturned, likewise the upper ends of the upright leg elements 13b and 13c of the second leg member, as clearly shown in Figures 4 and 5. The inturned upper ends of elements 12b and 12c, which ends are indicated at 12d and 12e, respectively, are adapted to slide longitudinally of the parallel side members 11c and 11d of the table top supporting frame 11, from the position in which one of these members is shown in Figure 6 of the drawings, when the table supporting means is fully folded, to the position in which this member is shown in Figure 2 of the drawings, member 11c comprising a top guide for the inturned end 12e during such movement, the bottom guide, cooperating with element 11c in constraining end 12e to move in a path parallel to the table top, two such guides, indicated at 18 and 19, being provided.

The ends of each such guide are welded to the associated side members of the frame 11, the guard being thus securely fastened in position. At one end each guard 18 is provided with a depending looped portion 18a and at the other end with an eye 19b, the inturned ends 13d and 13e of the leg elements 13b and 13c, respectively, passing through aligned eyes 18b and 19b, within which these portions may freely rotate, the leg element 13 thus being connected to the frame 11 for swinging movement about an axis passing through the loop members 18b and 19b. As one of the leg members is pivoted for swinging movement about an axis fixed with respect to the top and the second is mounted for rotation about the axis of the cross-brace 15, the two leg members may be moved into parallelism or folded position or disposed angularly with respect to each other, as indicated in Figure 1, to support the table top in a generally horizontal plane. When the table is unfolded or erected the inturned ends 12d and 12e of the leg member 12 will be positioned as shown in Figure 2, the table top being supported in a sturdy manner so as to be able to bear substantial burdens.

It is desirable that the table be so designed that it may be readily lifted by its top and moved from place to place without causing collapse of the supporting structure. This is easily possible, the bearer of the table picking it up by its ends as indicated diagrammatically in Figure 3, the inturned ends 12d and 12e of the leg element 12 dropping downwardly into the loops 18a and 19a of the guard members 18 and 19 respectively, the leg member 12 being thus locked against accidental rotation about cross-brace 15 during the carrying operation. Then, when the table is again lowered to the supporting floor there will be no collapse or shifting of the supporting elements.

Preferably the foldable supporting means is formed of heavy wire and the wires are welded to each other. The table top 10, as previously explained, may conveniently be fabricated of metal of light weight or thin gauge and the table as an entirety is light in weight, attractive in appearance, and may easily be fabricated at relatively low cost.

Having thus described the invention, what is claimed as new and desired to be secured by Letters Patent is:

1. A folding table comprising a rectangular top of light gauge sheet metal and a collapsible support therefor, said support including a rectangular frame and rectangular legs attached thereto for bodily movement about an axis fixed with respect to said frame and relative angular movement about an axis movable toward and away from said frame, the table top being mounted on and firmly attached to the frame of the support, marginal portions thereof, at opposite ends, curving downwardly and inwardly to closely engage and encircle, respectively, parallel end members of the frame, the longitudinally extending parallel side members of the frame being disposed inwardly of the side edges of the table top and to closely engage the undersurface of the top to support the same, means pivotally attaching one end of one leg of the table to both of said longitudinally extending members of the frame for swinging movement about an axis fixed with respect to the frame, and means connecting one end of the second leg of the support to both of said longitudinally extending frame members for sliding movement longitudinally of the frame and pivotal movement about said movable axis.

2. The combination set forth in claim 1 in which said last mentioned means includes a device for locking the second leg against movement when the table and support are lifted by forces applied to the table top, said second leg disengaging said locking means when the table top is released and is supported by said legs only.

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