May 22, 1956 C. A. SAND 2,746,823

COLLAPSIBLE TABLE

Filed Feb. 24, 1955

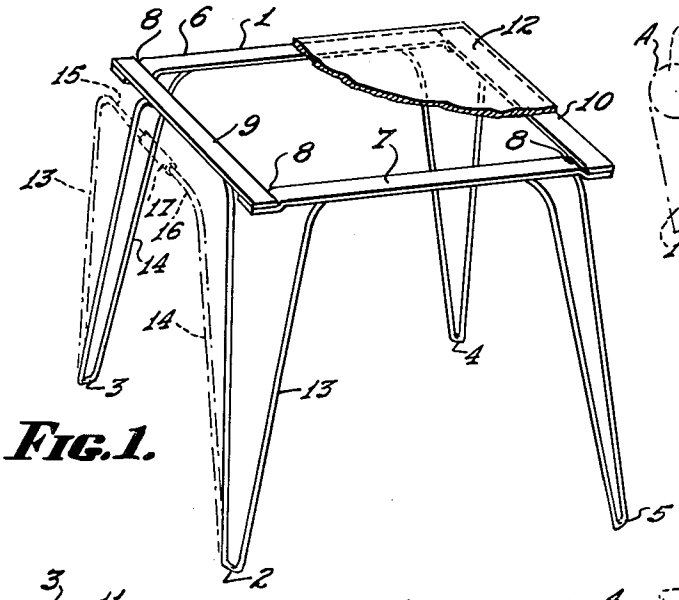


FIG. 1.

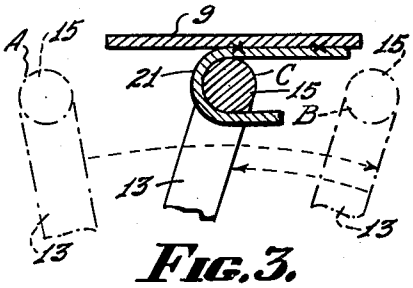


FIG. 3.

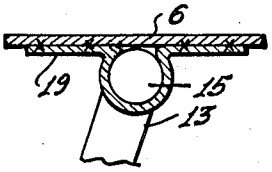


FIG. 4.

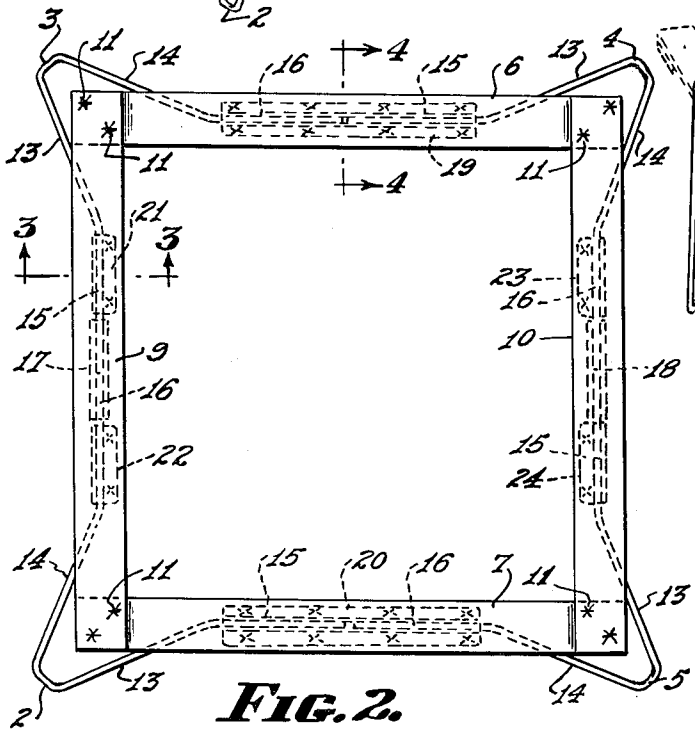


FIG. 2.

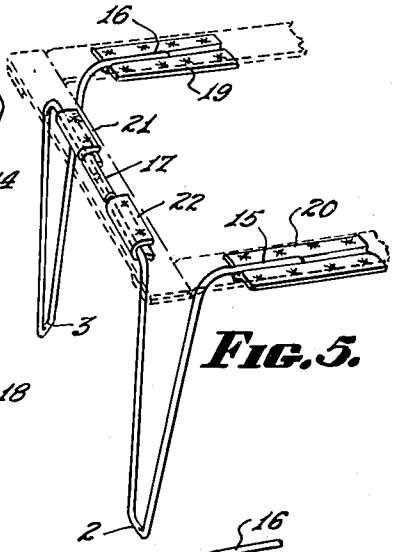


FIG. 5.

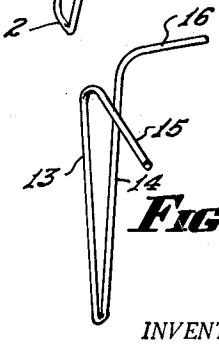


FIG. 6.

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2,746,823

COLLAPSIBLE TABLE

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6 Claims. (Cl. 311—116)

My invention relates to stands or tables and more particularly to a collapsible structure wherein the leg members may be readily attached and detached without the use of screws, bolts or comparable fastening means.

While my structure will find utility wherever a table or stand is required, it is particularly suited for use as an inexpensive television table or as a display stand for air conditioning units and similar articles of merchandise.

It is a principal object of my invention to provide a table or stand structure wherein the leg members are formed from metal rods joined together in units and adapted to coact with rod receiving brackets on the under side of the table top or top forming frame to secure the parts together in interlocking relationship.

A further object of my invention is the provision of leg units of the character described wherein the free ends of each unit are adequate to be received in sleeve-like brackets, with an intermediate portion of each leg unit engaged in a hook-like bracket disposed at right angles to the sleeve-like brackets, the arrangement of parts being such that the engagement of the intermediate portion of the unit with the hook-like bracket requires the intermediate portion to be sprung inwardly with the result that the intermediate and end portions of the unit, when engaged in their respective brackets, exert oppositely directed forces acting to maintain the parts in engagement with the bracket means.

These as well as other objects of my invention which will appear hereinafter or which will be apparent to the skilled worker in the art upon reading this specification, I accomplish by that construction and arrangement of parts of which I shall now describe an exemplary embodiment.

Reference is now made to the accompanying drawings wherein:

Figure 1 is a perspective view with parts broken away illustrating a table construction in accordance with my invention.

Figure 2 is a plan view with underlined parts in dotted lines of the table of Figure 1.

Figure 3 is a sectional view with alternate positions of the leg member illustrated in broken lines, taken along the line 3—3 of Figure 2.

Figure 4 is a sectional view taken along the line 4—4 of Figure 2.

Figure 5 is a partial perspective view with parts in dotted lines illustrating the manner in which one of the leg units engages the bracket members secured to the table top or supporting frame.

Figure 6 is a perspective view of one of the leg members.

Referring first to Figures 1 and 2 of the drawings, I have therein illustrated a table or stand comprising a frame 1 to which are connected leg members 2, 3, 4 and 5. In the embodiment illustrated the frame 1 comprises opposed frame members 6 and 7 having their ends stepped downwardly, as at 8, to provide seats for the transverse frame members 9 and 10, the frame members thus defining a planar supporting surface. Preferably the frame members will be formed from metal strips suitably spot welded together, as at 11; or they may be formed from wood or other suitable materials, the frame members being suitably joined together to form a rigid frame. Where the structure is to be used to support a television set or as a display stand for an air conditioning unit or the like, it is generally unnecessary to provide anything further in the way of a supporting platform. However, it is within the spirit of my invention to provide a solid top, indicated at 12, which may be supported on the frame 1. It is also within the spirit of my invention to replace the frame with a solid top member in instances where a supporting platform is required; and it will be understood in the description which follows that the term "frame" is intended to encompass both open frames and solid tops. Where the top 12 is to be formed from glass, slate or marble, an underlying frame, such as the frame 1, will be utilized to mount the brackets in which the leg members are received; whereas if the top 12 is formed from wood or metal, it will be apparent that the leg receiving brackets may be secured directly to the undersurface of the top.

Referring now to Figure 6 of the drawings, the leg members 2, 3, 4 and 5 will be identical, being formed from suitable lengths of rod stock bent to form a V-shaped leg composed of reversely bent leg portions 13 and 14, the leg portions terminating at their upper ends in horizontally disposed projections 15 and 16, respectively, the projections 15 and 16 extending at substantially right angles to each other.

In order to obtain the desired locking action between the legs and their brackets, the individual leg members are connected together into leg units. Thus the leg members 2 and 3 are joined by means of a sleeve 17 surrounding and joining together the projections 15 and 16 of leg members 3 and 2, respectively, to form one leg unit. A similar sleeve 18 connects together the corresponding projections of the leg members 4 and 5, to form a second leg unit.

Opposed frame members 6 and 7 have elongated sleeve-like brackets 19 and 20 secured to their undersurfaces, the sleeve-like brackets being adapted to receive the horizontally disposed projections 15 of leg members 2 and 4 and the projections 16 of leg members 3 and 5. The frame members 9 and 10, on the other hand, are provided with spaced apart pairs of hook-like brackets 21, 22 and 23, 24. The brackets 21 and 22 are spaced apart by a distance slightly in excess of the length of the sleeve 17; and similarly the brackets 23 and 24 are spaced apart by a distance slightly in excess of the length of sleeve 18. The hook-like brackets open inwardly and are adapted to engage the exposed portions of the projections 15 and 16 lying beyond the sleeves 17 and 18.

In assembling the table, the leg unit comprising the leg members 2 and 3 will first have the projection 15 of leg members 2 inserted in the adjacent end of the sleeve-like bracket 20 and the projection 16 of leg member 3 will be similarly inserted in the adjacent end of bracket 19. When this has been done the remaining leg portions and their projections, which are connected together by the sleeve 17, will occupy substantially the position shown in broken lines in Figure 1. The leg portions 13 and 14 of leg members 2 and 3 are then flexed or sprung inwardly beyond the hook-like brackets 21 and 22, whereupon the pressure on the leg portions is released sufficiently to permit the projections 15 and 16 carried thereby to engage in the hook-like brackets 21 and 22. The sleeve 17 will serve as a centering means since it is of a size to fit between the brackets 21 and 22. The flexing or springing action of the leg portions 13 and 14 of leg members 2 and 3 will be clearly apparent from Figure 3

of the drawings wherein the initial position of the leg portion 13 of leg member 3 is indicated at A, its inwardly deflected position being indicated at B and its final locked position indicated at C.

It will be understood that leg members 4 and 5, joined together as a unit by means of sleeve 18, will be engaged in brackets 19 and 20 and then flexed inwardly in like manner so as to engage the projections 15 and 16 of leg members 4 and 5 with the hook-like brackets 23 and 24.

Since, in effect, the leg members are compressed during their engagement with the brackets, their normal tendency is to spring back to their initial position, i. e. the position A, and the forces so exerted serves to lock them tightly in the hook-like brackets. These forces also exert themselves in the opposite direction, tending to more tightly urge the projections into the sleeve-like brackets 19 and 20. The result is an extremely rigid mounting of the legs to the frame without the use of nuts, bolts or other adjustable fastening means. At the same time, the leg members may be readily removed by flexing them inwardly so as to disengage their intermediate portions from the hook-like brackets, whereupon the remaining projections may be withdrawn from the sleeve-like brackets.

It will be understood that modifications may be made in my invention without departing from the spirit of it. For example, while I have described the leg members as being formed from rod stock, it will be evident that tubular stock may be used. Having, however, described my invention in an exemplary embodiment, what I desire to secure and protect by Letters Patent is:

1. A collapsible stand or the like comprising a frame forming a supporting surface, a pair of elongated sleeve-like brackets extending along opposite sides of said frame, hook-like brackets extending along the remaining sides of said frame, leg members adapted to be engaged in said brackets, each of said leg members being formed from rod stock reversely bent to define inner and outer leg portions, said outer leg portions terminating in outwardly directed projections for engagement in said sleeve-like brackets, and the inner leg portions terminating in outwardly directed projections extending in substantially right angles to said first named projections, said inner leg portions and said last named projections being adapted to be sprung inwardly for engagement with said hook-like brackets.

2. A collapsible stand or the like comprising a frame forming a supporting surface, a pair of elongated sleeve-like brackets extending along opposite sides of said frame, hook-like brackets extending along the remaining sides of said frame, a pair of leg units adapted to be engaged in said brackets, each of said leg units comprising a pair of legs formed from reversely bent rod stock and having inner and outer leg portions, the outer leg portions of each unit having outwardly directed projections for engagement in said sleeve-like brackets, the inner leg portions of each unit being joined together and adapted to be sprung inwardly for engagement with said hook-like brackets.

3. A collapsible stand or the like comprising a frame defining a supporting surface, a pair of elongated sleeve-like brackets extending along opposite sides of said frame,

hook-like brackets extending along the remaining sides of said frame, a pair of leg units adapted to be engaged in said brackets, each of said leg units comprising a pair of leg members formed from reversely bent rod stock and having inner and outer leg portions, the outer leg portions of each unit terminating in outwardly directed projections for engagement in said sleeve-like brackets, the inner leg portions terminating in aligned projections connected together by a sleeve, said inner leg portions and the projections carried thereby being adapted to be sprung inwardly for engagement with said hook-like brackets.

4. A collapsible stand or the like comprising a frame defining a supporting surface, a pair of elongated sleeve-like brackets extending along opposite sides of said frame, spaced apart pairs of hook-like brackets extending along the remaining sides of said frame, a pair of leg units adapted to be engaged in said brackets, each of said leg unit comprising a pair of leg members formed from reversely bent rod stock and having inner and outer leg portions, the outer leg portions of each unit terminating in outwardly directed projections for engagement in said sleeve-like brackets, the inner leg portions of each unit terminating in aligned projections extending in substantially right angles to said first named projections and joined together by means of a sleeve, the inner leg portions of each unit and the projections carried thereby being adapted to be sprung inwardly for engagement with said hook-like brackets, said sleeve being of a size to just nicely fit between the said spaced apart pairs of hook-like brackets, whereby said sleeve serves as a centering means for said leg units.

5. In a collapsible stand or the like, a frame defining a horizontally disposed supporting surface, a pair of elongated sleeve-like brackets extending along the under surface of opposite sides of said frame, spaced apart pairs of hook-like brackets extending along the under surface of the remaining sides of said frame, an opposed pair of leg units engaged in said brackets, each of said leg units comprising a pair of leg members formed from reversely bent rod stock and having inner and outer leg portions, the outer leg portions of each unit terminating in outwardly directed projections engaged in the end of said sleeve-like brackets, the inner leg portions of each unit terminating in aligned projections extending at substantially right angles to said first named projections and secured together by means of a sleeve, said inner leg portions and the projections carried thereby being sprung inwardly and engaged in said hook-like brackets.

6. The structure claimed in claim 5 wherein said sleeves having length substantially equal to the distance between the spaced apart pairs of hook-like brackets, whereby to form a centering means for said inner leg portions and the projections carried thereby.

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