Oct. 11, 1955 C. T. DE PUY ET AL 2,720,402

COLLAPSIBLE SERVING TABLE

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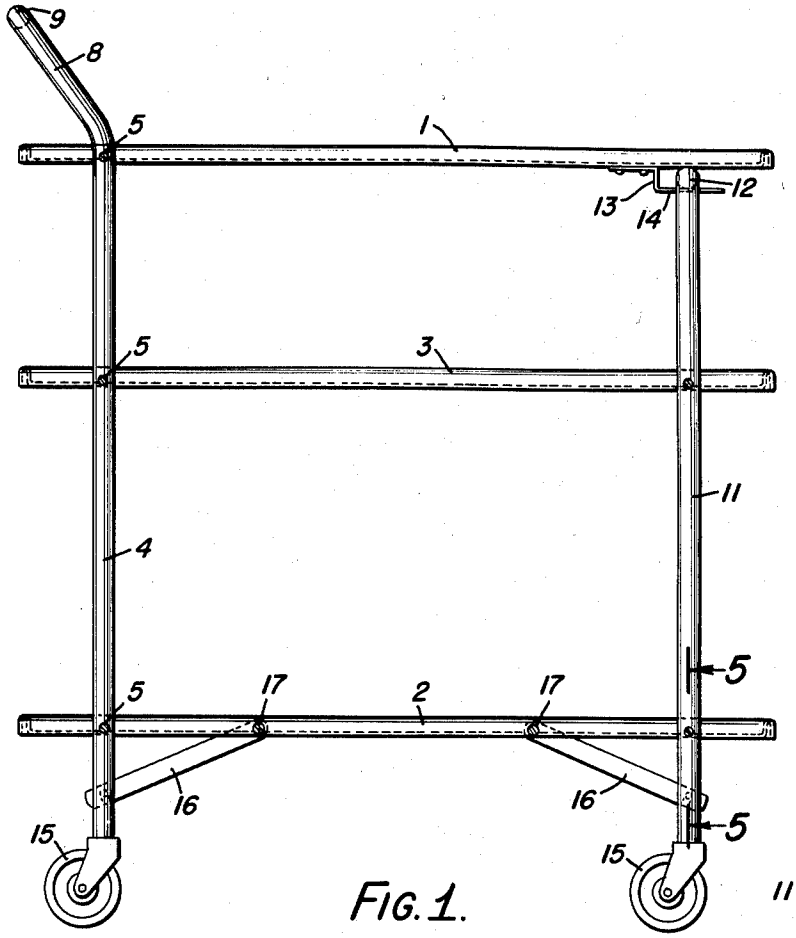


FIG. 1.

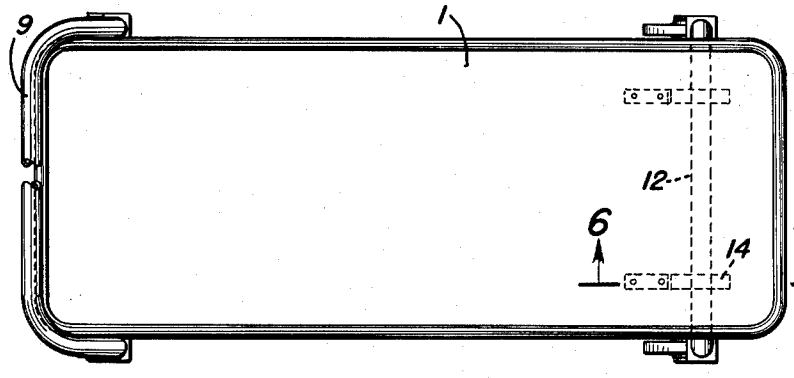


FIG. 2.

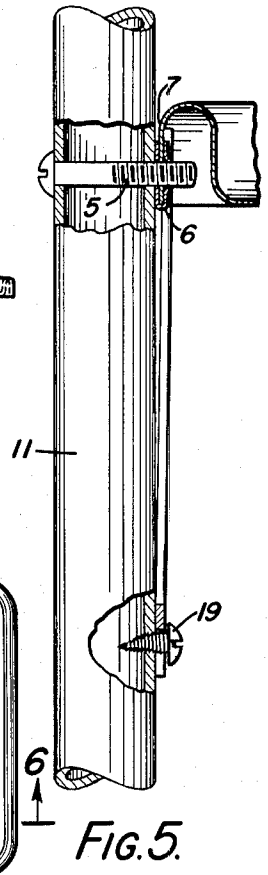


FIG. 5.

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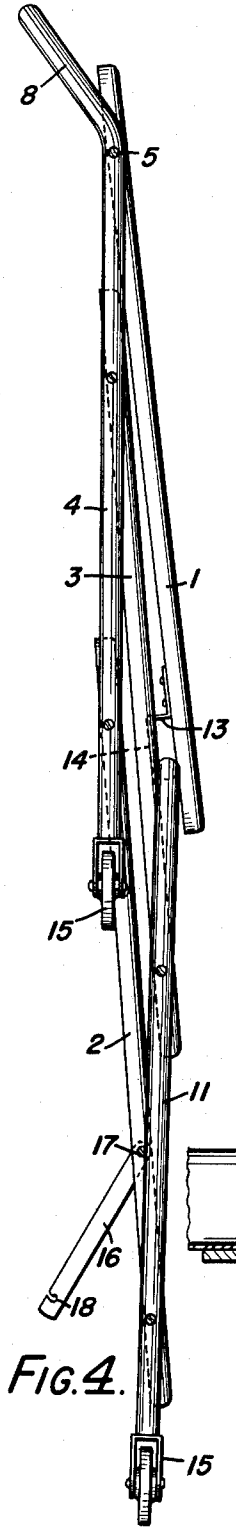


FIG. 4.

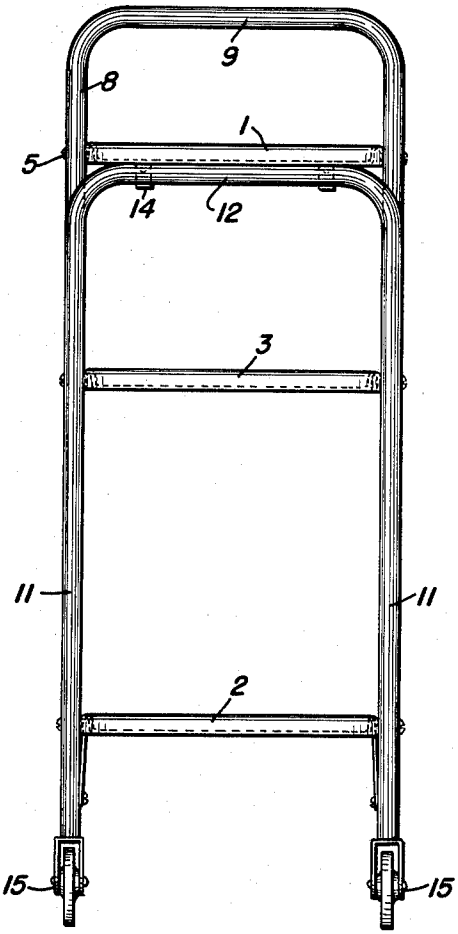


FIG. 3.

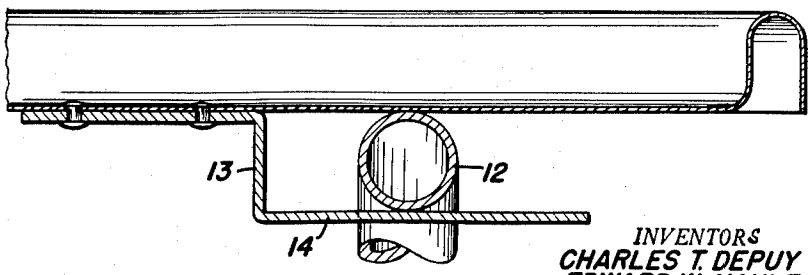


FIG. 6.

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2,720,402

COLLAPSIBLE SERVING TABLE

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Application March 3, 1953, Serial No. 340,002

6 Claims. (Cl. 280—41)

This invention relates to a collapsible serving table of the type including a series of trays pivotally and foldably mounted on leg frames movable on casters or wheels when in operative relationship, and it has for its purpose to afford a structure that permits the convenient carrying of a maximum number of dishes on a given tray area and readily moving the table over a floor.

The invention has for a further object to provide a metal serving table with a multiplicity of trays foldable into compact relationship for packing or storing, and which when in operation affords a handle in conveniently accessible position for pushing or pulling the table, while not interfering with the positioning of dishes on the topmost tray or limiting the number of dishes carried thereby, or in any way restricting the foldability of the trays.

Still another purpose of the invention is to afford a structure including three spaced parallel trays, the middle tray being arranged closer to the uppermost tray than to the bottom tray, and leg frames associated with both ends of the trays, the leg frame at one end extending above the uppermost tray and affording a handle while the leg frame at the opposite ends of the trays extends under the uppermost tray and supports the latter while being pivotally connected to the lower trays, affording a connection between the uppermost tray and the last mentioned leg frame whereby the latter is loosely positioned under the uppermost tray and related thereto in such a manner as to permit relative sliding movement between the leg frame and tray in either direction for collapsing.

To these and other ends, the invention consists in the construction and arrangement of parts that will appear clearly from the following description when read in conjunction with the accompanying drawings, the novel features being pointed out in the claims following the specification.

In the drawings:

Fig. 1 is a view in side elevation illustrating a preferred embodiment of the invention with the trays in operative position;

Fig. 2 is a plan view of the same;

Fig. 3 is a view in end elevation looking from right to left of Fig. 1;

Fig. 4 is a view in side elevation showing the position of the trays and leg frames when collapsed;

Fig. 5 is an enlarged detail sectional view taken on line 5—5 of Fig. 1 looking in the direction indicated, and

Fig. 6 is an enlarged detail sectional view taken on line 6—6 of Fig. 2 looking in the direction indicated.

Referring more particularly to the drawings in which like reference numerals refer to the same parts throughout the several views, the embodiment of the invention as herein illustrated includes a top or uppermost tray 1, a bottom or lowermost tray 2, and an intermediate tray 3 which is spaced from the lowermost tray 2 a greater distance than from the uppermost tray 1 in order to permit placing higher dishes or objects on the lowermost tray than would otherwise be possible.

Connecting the trays at one end is a generally U-shaped

leg frame including legs 4 pivotally connected with the trays by means of screw bolts 5, each of which engages an opening in a leg 4 and extends through an opening in a fastening nut 6 and an opening in the side or outer wall 7 of the bent rim surrounding each tray at its edge, see Fig. 5. The legs 4 are connected to the trays at points spaced from the adjacent ends of the trays and extend upwardly above the uppermost tray where they are inclined outwardly toward the adjacent ends of the trays to a vertical plane passing through said ends, such inclined top portions 8 terminating in and connected by a horizontal handle portion 9 that is located outwardly from a vertical plane passing through the end of the supporting surface of the uppermost tray.

The position of the handle portion 9 of the leg frame just described is such as to enable conveniently pushing or pulling the serving table over a floor while at the same time leaving the entire supporting surface of the uppermost tray 1 free and readily accessible to receive dishes thereon without striking or interfering with the handle 9, while at the same time permitting collapsing of the trays into a minimum space for compactness and convenience when shipping or storing.

At the other ends of the trays, there is provided a generally U-shaped leg frame including legs 11 which are pivotally connected to the lower trays 2 and 3 in the manner already described, while the legs 11 are provided at their upper ends with a horizontal top connecting portion 12 that underlies the uppermost frame 1 and supports the latter.

When the trays are in operative relation, the horizontal top portion 12 connecting the legs 11 occupies the position illustrated in Fig. 1 and when the trays are folded to the position illustrated in Fig. 4, the uppermost tray 1 has a sliding movement in relation to the horizontal supporting portion 12 in one direction or the other depending upon the manner in which the trays are collapsed. In order to permit such slidable relationship between the uppermost tray 1 and the underlying top connecting portion 12 and at the same time prevent separating movement between these parts, there are provided brackets or keepers permanently attached to the underside of the uppermost tray 1 and including depending portions 13 and retaining portions 14 that extend under the horizontal connecting top portion 12 of the leg frame, the retaining portions 14 being of such length and so related to the connecting portion 12 of the leg frame as to permit the latter to move in either direction on the retaining portions 14.

The brackets are so proportioned and positioned that when the table is completely collapsed by folding in one direction, the horizontal connecting portion 12 of the leg frame moves toward the outer end of the retaining portions 14, as illustrated in Fig. 4, but without sufficient movement to become disengaged therefrom, and if the table is collapsed by folding the trays in the opposite direction in relation to the leg frames, the horizontal connecting portion 12 of the leg frame moves endwise of the retaining portions 14 toward the depending portions 13 of the brackets with sufficient freedom of movement to permit complete collapsing of the trays without striking said depending portions 13.

The legs are provided at their lower ends with suitable wheels or casters 15 to permit rolling the table over a floor, while 16 indicate locking bars pivoted to the lower tray 2 at 17 and provided with locking recesses or notches 18 for engaging pins or screws 19 provided on the legs so that when the locking bars 16 are moved into engagement with the pins 19 as in Fig. 1, the trays are held in operative relationship, and when it is desired to fold or collapse the trays, the locking bars 16 are moved forcibly upwardly out of engagement with

the pins 19. When the locking bars 16 are thus disengaged, the table can be collapsed by folding the trays either upwardly or downwardly in relation to one of the leg frames.

While the invention has been described with relation to the structure herein shown, it is not confined to the details illustrated, and this application is intended to cover such modifications or departures as may come within the purposes of the improvement and the scope of the following claims.

We claim:

1. A collapsible serving table comprising a plurality of trays spaced one above the other, a generally U-shaped one-piece metal leg frame having vertically arranged legs which are pivotally connected to the trays at points spaced from one end thereof and in the planes of the respective trays, said legs including top portions extending above the uppermost tray and inclined from their pivotal connections therewith outwardly to a vertical plane passing through the adjacent ends of the trays, a handle portion connecting the upper ends of said legs, a generally U-shaped one-piece metal second leg frame associated with the opposite ends of the trays including vertically arranged legs and a horizontal connecting top portion underlying in contact with and supporting said uppermost tray entirely thereacross, the last mentioned legs being pivotally connected with the lower trays at points spaced from the adjacent ends thereof, supporting wheels at the lower ends of the legs, and locking devices detachably connecting the leg frames with a tray, said connecting top portion of the second leg frame being connected with the uppermost tray at a point beneath the plane of the tray and having a pivotal and sliding movement relatively to said tray.

2. A collapsible serving table comprising a plurality of trays spaced one above the other, a generally U-shaped leg frame having vertically arranged legs which are pivotally connected to the trays at points spaced from one end thereof, said legs including top portions extending above the uppermost tray and inclined from their pivotal connections therewith outwardly to a vertical plane passing through the adjacent ends of the trays, a handle portion connecting the upper ends of said legs, a generally U-shaped second leg frame associated with the opposite ends of the trays including vertically arranged legs and a horizontal connecting top portion underlying in contact with and supporting said uppermost tray entirely thereacross, means carried by the undersurface of the uppermost tray spaced from its opposite edges and engaging the underside of said horizontal connecting top portion of said second leg frame and acting to permit relative sliding movement of said connecting top portion and the uppermost tray in either direction while holding said connecting top portion and uppermost tray against relative separating movement, the legs of said second leg frame being pivotally connected with the lower trays at points spaced from the adjacent ends thereof, supporting wheels at the lower ends of the legs, and locking devices detachably connecting the leg frames with a tray.

3. A collapsible serving table comprising a plurality of trays spaced one above the other, a generally U-shaped leg frame having vertically arranged legs which are pivotally connected to the trays at points spaced from one end thereof, said legs including top portions extending above the uppermost tray and inclined from their pivotal connections therewith outwardly to a vertical plane passing through the adjacent ends of the trays, a handle portion connecting the upper ends of said legs, a generally U-shaped second leg frame associated with the opposite ends of the trays including vertically arranged legs and a horizontal connecting top portion underlying in contact with and supporting said uppermost tray entirely thereacross, brackets carried by the undersurface of the uppermost tray spaced from its opposite edges and including retaining portions which underlie the horizontal connecting top portion of said second leg frame and

permit relative sliding movement of said connecting top portion and the uppermost tray in either direction while holding said connecting top portion and uppermost tray against relative separating movement, said connecting top portion of the second leg frame being located intermediate the ends of said retaining portions of the brackets when the trays are in operative relationship and movable to one or the other ends of said retaining portions when the table is collapsed, the legs of said second leg frame being pivotally connected with the lower trays at points spaced from the adjacent ends thereof, supporting wheels at the lower ends of the legs, and locking devices detachably connecting the leg frames with a tray.

4. A collapsible serving table comprising a series of trays spaced one above the other, the intermediate tray being spaced a greater distance from the lowermost tray than from the uppermost tray, a generally U-shaped one-piece metal leg frame having vertically arranged legs which are pivotally connected to the trays at points spaced from one end thereof and in the planes of the respective trays, said legs including top portions extending above the uppermost tray and inclined from their pivotal connections therewith outwardly to a vertical plane passing through the adjacent ends of the trays, a handle portion connecting the upper ends of said legs and located in a vertical plane spaced outwardly from a vertical plane passing through the adjacent end of the supporting surface of the uppermost tray, a generally U-shaped one-piece metal second leg frame associated with the opposite ends of the trays including vertically arranged legs and a horizontal connecting top portion underlying in contact with and supporting said uppermost tray entirely thereacross, the last mentioned legs being pivotally connected with the lower trays at points spaced from the adjacent ends thereof, supporting wheels at the lower ends of the legs, and locking devices detachably connecting the leg frames with a tray, said connecting top portion of the second leg frame being connected with the uppermost tray at a point beneath the plane of the tray and having a pivotal and sliding movement relatively to said tray.

5. A collapsible serving table comprising a series of trays spaced one above the other, the intermediate tray being spaced a greater distance from the lowermost tray than from the uppermost tray, a generally U-shaped leg frame having vertically arranged legs which are pivotally connected to the trays at points spaced from one end thereof, said legs including top portions extending above the uppermost tray and inclined from their pivotal connections therewith outwardly to a vertical plane passing through the adjacent ends of the trays, a handle portion connecting the upper ends of said legs and located in a vertical plane spaced outwardly from a vertical plane passing through the adjacent end of the supporting surface of the uppermost tray, a generally U-shaped second leg frame associated with the opposite ends of the trays including vertically arranged legs and a horizontal connecting top portion underlying in contact with and supporting said uppermost tray entirely thereacross, means carried by the undersurface of the uppermost tray spaced from its opposite edges and engaging the underside of said horizontal connecting top portion of said second leg frame and acting to permit relative sliding movement of said connecting top portion and the uppermost tray in either direction while holding said connecting top portion and uppermost tray against relative separating movement, the legs of said second leg frame being pivotally connected with the lower trays at points spaced from the adjacent ends thereof, supporting wheels at the lower ends of the legs, and locking devices detachably connecting the leg frames with a tray.

6. A collapsible serving table comprising a series of trays spaced one above the other, the intermediate tray being spaced a greater distance from the lowermost tray than from the uppermost tray, a generally U-shaped leg frame having vertically arranged legs which are pivotally

connected to the trays at points spaced from one end thereof, said legs including top portions extending above the uppermost tray and inclined from their pivotal connections therewith outwardly to a vertical plane passing through the adjacent ends of the trays, a handle portion connecting the upper ends of said legs and located in a vertical plane spaced outwardly from a vertical plane passing through the adjacent end of the supporting surface of the uppermost tray, a generally U-shaped second leg frame associated with the opposite ends of the trays including vertically arranged legs and a horizontal connecting top portion underlying in contact with and supporting said uppermost tray entirely thereacross, brackets carried by the undersurface of the uppermost tray spaced from its opposite edges and including retaining portions which underlie and engage said horizontal connecting top portion of said second leg frame and permit relative sliding movement of said connecting top portion and the uppermost tray in either direction while holding said connecting top portion and uppermost tray against relative separating movement, said horizontal connecting top portion being located intermediate the ends of said retaining portions of the brackets when the trays are in operative position and movable to one or the other of the ends of said retaining portions when the table is collapsed, the legs of said second leg frame being pivotally connected with the lower trays at points spaced from the adjacent ends thereof, supporting wheels at the lower ends of the legs, and locking devices detachably connecting the leg frames with a tray.

References Cited in the file of this patent

UNITED STATES PATENTS

1,168,775	Adams	Jan. 18, 1916
1,956,261	Wagner	Apr. 24, 1934
2,284,801	Conger	June 2, 1942
2,354,941	Treitel	Aug. 1, 1944
2,378,931	Kiesow	June 26, 1945
2,613,951	Rusnak	Oct. 14, 1952