

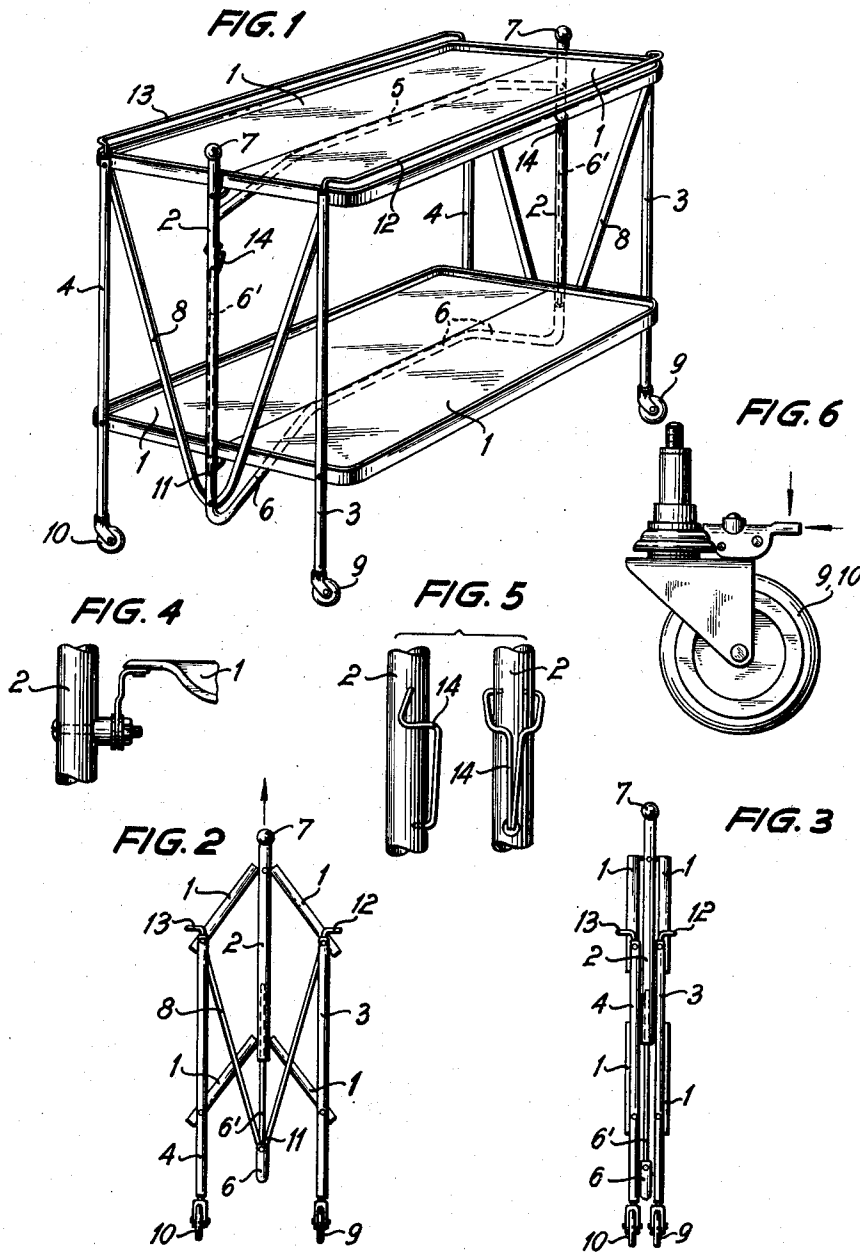
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FOLDABLE TABLES

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FOLDABLE TABLES

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The invention relates to a foldable table, particularly a serving table, as used in the household but also in medical practice and in catering establishments etc.

Foldable serving tables or serving trolleys are known in various embodiments. In the oldest embodiments, which consist partly of wood structures, divided table tops are mounted pivotally. These table tops are attached to a rigid frame provided with runner rollers.

More recent embodiments of steel or metal tube construction show table top halves, which are hinged foldably downward and outward or upward and inward on a rigid frame. However the folding down into a position for use is possible only after their supports articulated to a rigid central structure have been swung out horizontally by means of links. The opening and closing of the links and of the foldable supports and the holding thereof in the opened or closed position required a number of mechanical means, for example springs, abutments, trestles etc. In the known design the central frame structure is extended beyond the upper edge of the table top and accordingly is in the way of practical use of the useful area. Moreover these known designs are very expensive in production.

In some known foldable table two pairs of shelves are pivoted one above the other on central columns arranged at the ends of the foldable table and connected to one another by a transverse member extending at a level between the two pairs of shelves, and encumbering the space between them. Moreover such a connection at one point of the central columns only is inherently unstable and relies for stability of the foldable table as a whole on the said hinged pairs of shelves.

The invention has the object of fully obviating all the disadvantages of these known designs.

With this and other objects in view, which will become apparent later from this specification and the accompanying drawing, we provide a foldable table comprising in combination: four leg columns, two tubular middle columns, an upper yoke fixedly connecting the said middle columns to one another, a lower yoke having the ends bent upwardly and each including an extension slidably connected to one of the said tubular middle columns, a pair of table top halves pivotally connected to said leg columns and articulated at their inner ends about horizontal axes to the said middle columns, and links articulating the said lower yoke to the said table top halves at the outer ends thereof, the said table top halves being folded down by raising the said middle columns while the said leg columns keep standing on the floor.

Preferably the foldable table has at least one additional pair of table top halves articulated below the first mentioned pair of table top halves at their inner edges to the said middle columns and near their outer edges to the said leg columns, said additional table top halves following the folding movement of the first mentioned table top halves, said upper yoke being arranged immediately below said upper pair of table top halves, and said lower yoke being arranged below the lowest of said additional pairs of table top halves so as to clear the space between the upper pair of table top halves and additional pairs of table top halves.

The operation of the table or preferably trolley, according to the invention is accordingly very simple. When

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the same is not to be used, merely a slight lifting of the central columns is required, which is possible with the slightest effort of two fingers only, in order to place all the table top halves vertically downward in contact with the centre columns. However, the leg columns, which may optionally be provided with runner rollers, keep standing on the floor even in the folded position of the table, which has the considerable advantage, that the structure can be moved even in this condition without any special physical effort. In particular, as distinguished from known designs, unfolding is easily possible by the use of one hand only which is for example very important to a serving waiter who is holding a tray or the like in the other hand.

The upper and lower table top halves may be made of equal or of different size. In the latter case it is convenient to make the upper table top halves larger, so that serving trolleys, particularly after taking off or locking the runner rollers, may be used as normal occasional tables, which in this manner afford an appropriate leg room.

Conveniently upon each middle column a latch is provided, by means of which the table may be secured in its operative position against an awkward or inadvertent upward movement of the two middle columns, and accordingly against its being folded.

An embodiment of the table according to the invention will be explained hereinafter more in detail by way of example with reference to the drawings showing in a purely diagrammatic way in:

FIGURE 1, a perspective illustration of the table according to the invention in the operative position;

FIGURE 2, a side elevation of the arrangement according to FIGURE 1 in a semi-folded condition;

FIGURE 3, a side elevation of the arrangement according to FIGURE 1 in the fully folded condition.

FIGS. 4-6 are details on a larger scale.

The table according to the invention is for example provided with four table top halves 1, which are articulated on the one hand to two vertical middle columns 2, and on the other hand to two of four vertical leg columns 3 or 4, respectively. The upper ends of the two middle columns 2 are fixedly connected to one another by a preferably cranked yoke 5. The hollow middle columns 2 take-in slidably the cranked ends of a further yoke 6, in the manner of a telescope. At the extreme upper ends of the middle columns 2 hand grips 7 are provided.

Adjacent each crank end point of the lower yoke 6 a link 8 is articulated which is also articulated to the corresponding upper table top halves 1.

At the lower ends of the leg columns 3, 4 castors 9, 10 are mounted permanently or detachably. The castors 9, 10 may be locked, if desired, by the aid of any suitable device.

The unfolding of the table into the position for use is effected by a slight pressure on the middle columns 2, into which the ends of the lower yoke 6 slide until the lower table top halves 1 abut an abutment 11 fixedly connected to the cranked end of the yoke 6. The links 8 serve for supporting and securing the table top halves 1, to which the yokes 5, 6 afford a safe support.

The folding of the table is effected by simply raising the middle columns 2 by the grips 7. The raising of one grip by two fingers is sufficient therefor. Thereby the two contiguous upper and lower table top halves 1 are also raised, the outer edges of which move horizontally inward so far that in the end position the table top halves 1 contact the two middle columns 2. In this condition the surfaces of the individual table top halves face outward which has the advantage that any soiling thereof by foodstuff or the like can be readily noted and removed without difficulty. No unfolding of the table into the operative position is required therefor.

In the upper ends of each leg column 3, 4 preferably bores are provided, into which engage the cranked ends of protective railings 12, 13. These railings 12, 13 have the object of preventing articles transported on the table, particularly dishes, plates and the like, from falling off. The railings 12, 13 may obviously be removed in the operative position of the table, if desired, so that the same may be used as a stationary table, preferably camping table or the like, particularly after removing or locking the castors 9, 10. In this case it is convenient, to make the two upper table top halves larger than the lower ones, in order to afford sufficient leg room and accordingly comfortable sitting.

Referring now to FIG. 4, it is shown there how a slightly dished table top half 1 is hinged to a middle column 2 by means of a bracket riveted to the said table top half 1 and hinged to a horizontal screw bolt arranged transversely of the said column 2.

FIG. 5 shows in two part-elevations viewed at right angles to one another how a resilient wire 14 is hinged with its two horizontally inward bent upper ends in a transverse bore of the middle column 2 at a position shown in FIG. 1. The middle portion of this wire is bent so as to run longitudinally downward along the said middle column, and the lower ends thereof are bent radially inward at right angles to the said upper ends on which the wire 14 is hinged to the column 2. These lower ends penetrate through a radial bore of the tubular middle column 2 into a corresponding bore (not shown) of the telescoped end 6' of the lower yoke 6. The wire 14 thus forms a resilient latch, by means of which the end 6' of the lower yoke 6 and the middle column 2 can be locked to one another in the unfolded position of the table top halves, in order to prevent the latter from being folded unintentionally.

FIG. 6 shows a castor wheel mounting to be fitted—if desired—detachably—into the lower end of a leg column 3. A double armed lever pivoted about a horizontal axis to the castor bracket bears with its inner end on the fixed vertical trunnion of the castor mounting and prevents the same from rotating relative to the said trunnion unless this lever is depressed as indicated by the vertical arrow.

What we claim as our invention and desire to secure by Letters Patent, is:

1. A foldable table comprising in combination: four leg columns, two tubular middle columns, an upper yoke fixedly connecting the said middle columns to one another, a lower yoke having the ends bent upwardly and each including an extension slidably connected to one of the said tubular middle columns, a pair of table top halves pivotally connected to said leg columns and articulated at their inner ends about horizontal axes to the said middle columns, and links articulating the said lower yoke to the said table top halves at the outer ends thereof, the said table top halves being folded down so as to face outwardly by raising the said middle columns while the said leg columns keep standing on the floor.

2. A foldable table as claimed in claim 1, comprising latches mounted on the said middle columns and engaging in the folded-out condition of the said table tops the said telescoped ends of the said lower yoke and locking the same unless withdrawn.

3. A foldable table as claimed in claim 1, comprising hand grips arranged on the upper ends of the said middle columns.

4. A foldable table as claimed in claim 1, having at least one additional pair of table top halves articulated below the first mentioned pair of table top halves at their inner edges to the said middle columns and near their outer edges to the said leg columns, said additional table top halves following the folding movement of the first mentioned table top halves, said upper yoke being arranged immediately below said upper pair of table top halves, and said lower yoke being arranged below the

lowest of said additional pairs of table top halves so as to clear the space between the upper pair of table top halves and additional pairs of table top halves.

5. A foldable table as claimed in claim 4, wherein the said additional table top halves are shorter radially than the first mentioned table top halves.

6. A foldable table as claimed in claim 4, comprising abutments arranged on the cranked ends of the said lower yoke on which the said additional table top halves rest in the folded-out condition.

7. A foldable table comprising in combination: four leg columns, runner rollers mounted at the lower ends of the said leg columns, two tubular middle columns, an upper yoke fixedly connecting the said middle columns to one another, a lower yoke having the ends bent upwardly and each including an extension slidably connected to one of the said tubular middle columns, a pair of table top halves pivotally connected to said leg columns and articulated at their inner ends about horizontal axes to the said middle columns, and links articulating the said lower yoke to the said table top halves at the outer ends thereof, the said table top halves being folded down facing outwardly by raising the said middle columns while the said leg columns keep standing on the floor with the said runner rollers.

8. A foldable table comprising in combination: four leg columns, having longitudinal bores at their upper ends, two tubular middle columns, an upper yoke fixedly connecting the said middle columns to one another, a lower yoke having the ends bent upwardly and each including an extension slidably connected to one of the said tubular middle columns, a pair of table top halves pivotally connected to said leg columns and articulated at their inner ends about horizontal axes to the said middle columns, protective railings having cranked ends engaging into the said bores at the upper ends of the said leg columns and in the unfolded position of the said table tops lining the edges thereof parallel to the said horizontal axes thereof, and links articulating the said lower yoke to the said table top halves at the outer ends thereof, the said table top halves being folded down so as to face outwardly by raising the said middle columns while the said leg columns keep standing on the floor.

9. A foldable table comprising in combination: four leg columns, runner rollers journalled detachably at the lower ends of the said leg columns, two tubular middle columns, an upper yoke fixedly connecting the said middle columns to one another, a lower yoke having the ends bent upwardly and each including an extension slidably connected to one of the said tubular middle columns, a pair of table top halves pivotally connected to said leg columns and articulated at their inner ends about horizontal axes to the said middle columns, and links articulating the said lower yoke to the said table top halves at the outer ends thereof, the said table top halves being folded down facing outwardly by raising the said middle columns while the said leg columns keep standing on the floor with the said runner rollers.

10. A foldable table comprising in combination: four leg columns, castors pivotally fitted at the lower ends of said leg columns, two tubular middle columns, an upper yoke fixedly connecting the said middle columns to one another, a lower yoke having the ends bent upwardly and each including an extension slidably connected to one of the said tubular middle columns, a pair of table top halves pivotally connected to said leg columns and articulated at their inner ends about horizontal axes to the said middle columns, and links articulating the said lower yoke to the said table top halves at the outer ends thereof, the said table top halves being folded down facing outwardly by raising the said middle columns while the said leg columns keep standing on the floor with the said runner castors.

11. A foldable table comprising in combination: four leg columns, runner rollers mounted at the lower ends of said leg columns, locking means in operative connection

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with the lower ends of said leg columns and with said runner rollers and capable of locking the latter, two tubular middle columns, an upper yoke fixedly connecting said middle columns to one another, a lower yoke having the ends bent upwardly and each including an extension slidably connected to one of said tubular middle columns, and articulated at their inner ends about horizontal axes to said middle columns, and links articulating said lower yoke to said table top halves at the outer ends thereof, said table top halves being folded facing outwardly by raising said middle columns while said leg columns keep standing with said runner rollers on the floor.

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