STACKABLE MEANS FOR COLLAPSIBLE TABLE


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4 Claims. (Cl. 311—39)

This invention relates generally to service tables, such as are used in hotels and restaurants, and, more particularly, to collapsible and stackable rolling service tables.

The ordinary service table commonly used for room service in a hotel or for service or clearing in a restaurant is merely a light table, fitted with wheels for ease of movement, and usually having a drop leaf top in order to negotiate doors easily. This type of table is quite adequate for its purpose of serving or clearing. However, since a restaurant, and especially a hotel, is required to have a number of these on hand, an acute problem of storage often arises when such tables are not actually in use. At the tables are several feet tall, somewhat bulky, and wheeled, they do not readily admit to stacking one on top of the other. When they are stacked, they are rarely stacked more than two high because of the difficulty in handling. Consequently a relatively large amount of space is required for storage of a relatively few tables. This waste of space is, of course, expensive, especially when there is a large number of tables to be stored.

An object of my invention is to provide a wheeled service table, which through its unique construction, is capable of being stacked in a collapsed state atop similar tables also collapsed and stacked.

My invention provides a service table comprising a top and three or more wheels or rollers connected by two or more legs, each joined to the top by a hinge. Each leg has an upper and lower section also joined to one another by a hinge. There is provided a stacking frame affixed underneath the top, which extends below the legs and wheels when the legs are in a completely collapsed position. The legs at their terminal ends may be hingedly joined to a stabilizer frame on which the wheels are mounted.

An advantageous embodiment of the present invention is described below with reference to the illustration thereof in the accompanying drawings wherein like numbers illustrate like parts, in which:

Fig. 1 is a front broken elevation of the table;
Fig. 2 is a partial front elevation illustrating the table in a completely collapsed position;
Fig. 3 is a partial perspective view of one of the legs illustrating its hinge construction; and
Fig. 4 is a sectional elevation taken on the line 4—4 of Fig. 1.

In this embodiment of the invention, a top 1 with drop leaves 2 is employed. Drop leaves 2 are supported when open by arms 3. Preferably four such arms are employed; however, a greater or lesser number may be used. Only two such arms are apparent in Fig. 1, the others being hidden behind the two shown and being of the same construction and operation of those shown.

Stacking frames 4 are provided, affixed underneath the top 1. The stacking frames 4 terminate in feet 5 which provide the under stacking surface of the collapsed table. I prefer that the stacking frame 4 extend the length of the table and provide downwardly extending skirts 6 which frictionally engage the lateral surface of the legs 7 when the legs 7 are in a completely collapsed position, thereby maintaining the legs 7 and stabilizer frame 9 in their collapsed position. It is understood, however, that a variety of other means could be employed to hold the legs 7 and stabilizer frame 9 in their collapsed position. The top 1 is supported by legs 7 which are joined by means of hinges 8 to the stacking frames 4 and adjacent the top 1. The terminal ends of the legs 7 are joined to a stabilizer frame 9 by means of hinges 10. Wheels 11 are mounted on the stabilizer frame 9.

While I prefer that the stabilizer frame 9 be two similar arcuate segments running the length of the table and being in tangential contact, it is understood that rectangular or H type bars may also be used. In the preferred embodiment of the device I also employ two sets of paired legs; however, more or less legs could be easily employed.

Mounted at the tangential contact of the segments of the stabilizer frame 9 is a carrier plate 12 having vertical slots 13 suitable for engagement with a depending rim of a food container (not shown). A latch 14 is mounted on each of the legs 7 and is employed to lock the legs 7 to the stacking frames 4 when the legs 7 are in a vertical position, thereby holding the legs vertically until the latch 14 is released.

Each of the legs 7 has an upper section 15 and a lower section 16 joined by a hinge 17. I prefer the hinge 17 to be an upper and lower series of plates 18 and 19 affixed to their respective upper or lower leg section 15 or 16 by a bolt 20 and joined by and rotatable through 180° about a pin 21. As will be seen, these plates 18 and 19 mesh or engage when the legs 7 are in a vertical position, thereby providing more bearing surface so as to afford lateral rigidity in the legs 7 at the hinge 17.

When the table is in use, it is as shown in Fig. 1. When the table is to be collapsed for stacking the latches 14 are released, the upper sections 15 of the legs 7 are moved on their hinges 8 up and underneath the top 1. The lower sections 16 of the leg 7 fold back and up at the hinge 17 making lateral contact with the upper sections 15. The stabilizer frame is drawn up with the legs 7 until the legs are completely collapsed. The legs 7 frictionally engage the skirts 6 of the stacking frames 4, thereby holding the legs 7 and the stabilizer frame 9 in their collapsed position. The legs 7 and stabilizer frame 9 are shown in a semi-collapsed position by the dotted lines in Fig. 4. It will be seen that when the legs 7 are in a completely collapsed position as shown in Fig. 2, the feet 5 of the stacking frames 4 extend below the legs 7, and there is provided a clear space above the plane of the bottom of feet 5, within wheels 11, and beneath frames 9 for handling the collapsed tables, singly or in stacks by the fork of a lift truck or other like mechanical handling device.

While I have described a new and useful type of collapsible and stackable service table, it is understood that the drawings and description are to be interpreted in an illustrative rather than a limiting sense, since various modifications may be made within the spirit and scope of the invention defined by the appended claims.

1 claim:
1. A collapsible table comprising a top, stacking means dependent from said top for sustaining a plurality of said tables superimposed one on another in a collapsed state, and a plurality of four supporting legs hingedly connected to and subjacent said top, each said leg comprising an upper and a lower section joined by a hinge so that said legs are collapsible inward of said joint and up and underneath of said top; said stacking means extends downwardly below said legs when said legs are in said collapsed state.
2. A collapsible table according to claim 1 wherein said stacking means comprises two depending skirts extending parallel to the plane in which each of said legs is collapsible; each of said skirts frictionally engaging two of said legs when in a collapsed state to lock said legs in said collapsed state.

3. A collapsible table according to claim 2 having in addition a stabilizer frame hingedly connected to each of said legs.

4. A collapsible table according to claim 3 wherein said stabilizer frame and said legs define a space extending parallel to said skirts when said legs are in a collapsed state; said legs being capable of receiving a device for moving and lifting said table.

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