Nov. 2, 1965 M. BEDOL 3,215,097

COLLAPSIBLE TABLE

Filed July 1, 1964

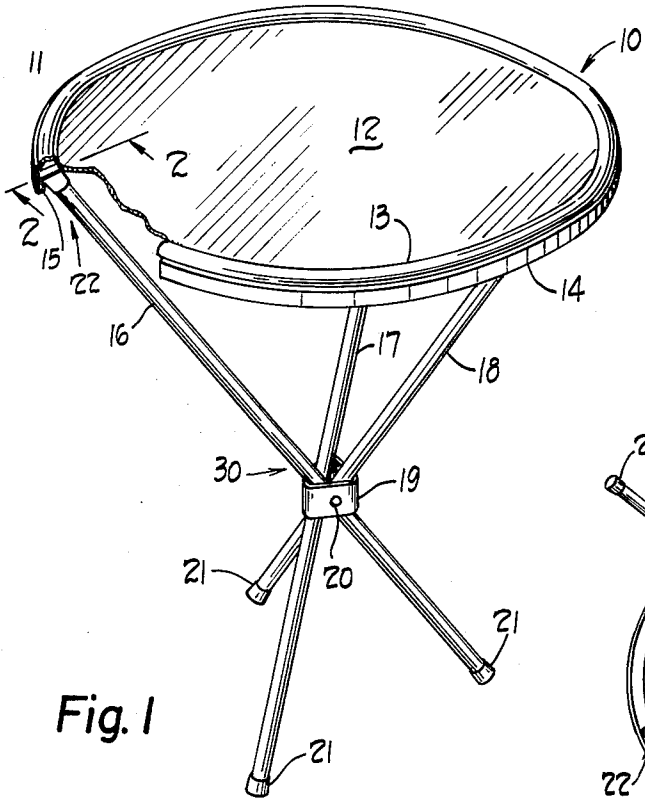


Fig. 1

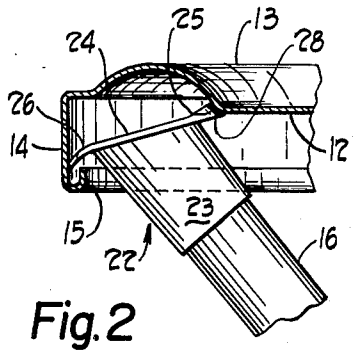


Fig. 2

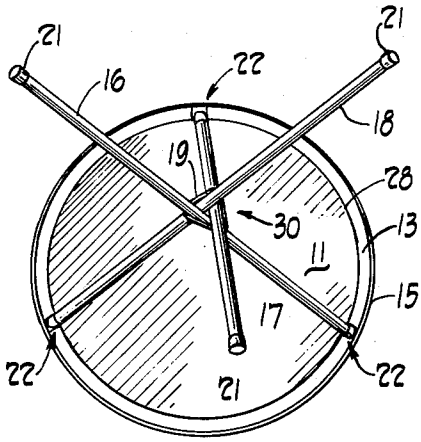


Fig. 3

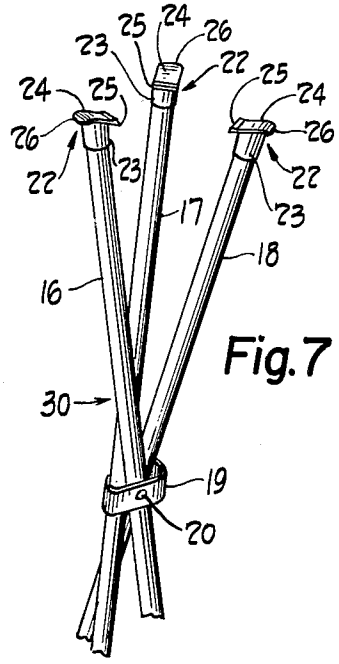


Fig. 7

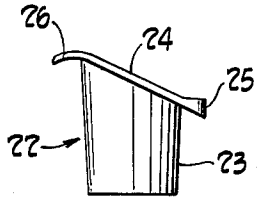


Fig. 4

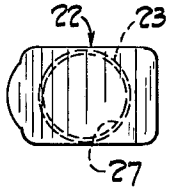


Fig. 5

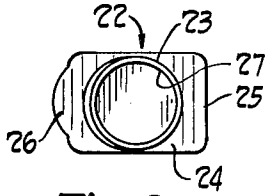


Fig. 6

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COLLAPSIBLE TABLE

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This relates to tables and particularly to collapsible sheet metal tables.

The primary object of the inventioned is to provide a collapsible table having separable legs that may be securely attached to the table top through a simple pressing action, requiring no tools.

Another object of the present invention is to provide a collapsible table having a foldable table-top supporting structure which is composed of a minimum number of parts, thereby facilitating storage of the table, when in a collapsed state.

A further object of the invention is to provide a collapsible table which is possessed of a high degree of stability when in assembled relation.

Another object is to provide a novel and facile method of attaching a foldable frame to table top, or the like, whereby the frame and top are held against accidental detachment, thereby facilitating moving of the table when in assembled condition.

It is still another object of this invention to provide a foldable table which is simple, yet sturdy in construction, inexpensive to produce, and is pleasing in appearance.

These and other objects of this invention will become apparent from a reading of the following specification and claims, together with the accompanying drawing, wherein:

FIGURE 1 is a perspective view of the collapsible table that is the subject of this invention;

FIGURE 2 is an enlarged view, partly in section, taken along the line and in the direction of the arrows 2—2 of FIGURE 1;

FIGURE 3 is a bottom plan view of the assembled unit;

FIGURE 4 is a side elevation of one of the table-top engaging leg heads, in its unmounted condition;

FIGURE 5 is a top plan view of the same;

FIGURE 6 is a bottom plan view of the same; and,

FIGURE 7 is a perspective view of the upper half of the leg frame in its semi-collapsed condition.

Referring more particularly to the drawing, there is seen in FIGURE 1 the collapsible table that is the subject of this invention, broadly indicated by reference numeral **10**.

The table comprises a circular sheet material top, or tray, **11**, and a foldable frame **30**. The latter being adapted, when in expanded condition, to support the top **11** in a substantially horizontal plane.

The frame, or tripod, **30** in this instance is constructed, preferably, of three elongated tubular legs **16**, **17** and **18** of uniform size and length, which are assembled in clustered relation and operatively connected to one another, intermediate their ends, by an encompassing collar **19**, through rivets **20**.

Each of the legs has affixed to its lower end limit a tip **21** which is preferably formed of rubber, plastic, or other suitable non-slipping material.

The tripod **30** and the tray **11** may be joined to form the table **10**, or separated and collapsed for compact storage, when not in use.

Furthermore, the top **11**, itself, may be used as a serving tray when not combined with tripod **30**.

The top **11** is circular in configuration, and is preferably stamped and formed from a blank of sheet metal,

and may have a suitable decorative design imprinted thereon.

The formed top has a plane central portion **12** bounded by a circumferential convexo-concave ridge **13** rising above the central plane **12**, which is in turn bounded by a dependent peripheral rim **14**, having a continuous inturned bead **15** along its lower edge.

The junction between the ridge **13** and the central portion **12** defines a circular abutment **28** on the underside of the top **11**, as is seen most clearly in FIGURE 2.

The rim bead **15** is spaced radially outward of the abutment **28**, in a plane below the abutment.

Reference numeral **22** broadly indicates leg locking heads which are mounted on the top end of each of the legs **16**, **17** and **18**, as is seen most clearly in FIGURE 7.

Each head **22** is made of plastic of a type having inherent flexibility in areas of relatively thin cross-section.

Each head **22** comprises a socket portion **23** and a foot portion **24**, positioned above the socket portion **23**, and extending cross-wise thereof at an angular inclination.

The socket has a central blind bore **27** of a diameter to snugly fit over, and grip, the top end of each leg **16**, **17** and **18**.

The foot portion **24** has a heel **25** at one end and a flexible toe **26** at the other end, as is seen most clearly in FIGURES 2, 4, 5 and 6.

The over-all length of the foot is such that it will snugly fit between the abutment **28** and the rim **14**, as shown in FIGURE 2.

The heel **25** is relatively thick in cross-section, and is adapted to seat firmly against the abutment **28**.

The toe **26** is relatively thin in cross-section, and is adapted to flex under pressure.

The heads are mounted on the legs **16**, **17** and **18** with the foot heels **25** faced inward toward the center-line of the collar **19**, as shown in FIGURE 7.

To secure the legs **16**, **17** and **18** to the top **11**, the top is placed on a flat surface, such as the floor, with its underside up, as seen in FIGURE 3.

The tripod **30** is expanded, and the heel **25** of each head **22** is positioned against the abutment **28** with the toes **26** facing the top rim **14**, resting on the bead **15**.

Each head is pressed firmly downward, in turn, until its toe **26** flexes and snaps behind the bead **15** with its outer edge seated against the inner face of the rim **14**.

The toes will bend as they are forced past the bead **15**, and then expand to lock the head in place, as seen in FIGURE 2.

When the so-assembled table is turned upright and stood upon the legs **16**, **17** and **18**, the toes **26** will be above the bead **15** and the heels **25** will all seat against the abutement **28**. The abutment **28** prevents lateral movement of the foot **24**. Therefore, the toe **26** cannot be shifted toward the center of the top enough to clear the rim bead **15**.

The toe **26**, therefore, holds the head against vertical displacement. The so-interlocked legs cannot separate from the top **11**, and the table may be lifted by its top **11** without danger of separation of the leg assembly **30**. The angular inclination of the foot **24** matches that of the expanded legs.

The legs can be intentionally removed by exerting sufficient outward pressure to flex the toes **26** past the bead **15**, but the weight, alone, of the tripod assembly **30** cannot effect this separation.

It will now be clear that there has been provided a device which accomplishes the objectives heretofore set forth.

While the invention has been disclosed in its preferred form, it is to be understood that the specific embodiment thereof as described and illustrated herein is not to

be considered in a limited sense, as there may be other forms or modifications of the invention which should also be construed to come within the scope of the appended claims.

I claim:

1. A collapsible table, comprising in combination, a circular sheet material top, having a plane central portion, bounded by a circumferential convexo-concave ridge, rising above the central plane, which, in turn, is bounded by a dependent peripheral rim having a continuous inturned bead at its lower edge; the convexo-concave ridge defining a continuous circular abutment, at the central portion, on the underside thereof; the rim bead being in a plane below the abutment and spaced radially, outward, therefrom; a plurality of support leg elements arranged in clustered relation within a collar positioned intermediate the ends of said legs and adapted to hold said legs in either expanded or collapsed positions; and, a head, fabricated from a plastic of a type having inherent flexibility in areas of relatively thin cross-section, mounted on the upper end of each leg, each of said heads having opposed, laterally extending, projections whose overall length is such that they can be fitted between the abutment and the rim, above the bead, to lock each leg end to the table top when the legs are in their expanded position, one of said projections being of relatively thin cross-section and capable of flexion to permit its passage across the bead.

2. A collapsible table, comprising in combination, a circular sheet material top, having a plane central portion, bounded by a circumferenial convexo-concave ridge, rising above the central plane, which, in turn, is bounded by a dependent peripheral rim having a continuous, inturned, bead at its lower edge; the convexo-concave ridge defining a continuous circular abutment, at the central portion, on the underside thereof; the rim bead being in a plane below the abutment and spaced radially, outward, therefrom; a plurality of support leg elements arranged in clustered relation within a collar positioned intermediate the ends of said legs and adapted to hold said legs in either expanded or collapsed positions; and, a head, fabricated from a plastic of a type having inherent flexibility in areas of relatively thin cross-section, mounted on each leg at the upper end thereof, each head having a socket portion adapted to frictionally receive the upper end of a leg therein, capped by a foot portion, angularly inclined cross-wise of the socket; said foot having a heel, of relatively thick cross-section, and a toe, of relatively thin cross-section, at the opposite ends thereof; the foot portion being of a length to nest between the top abutment and rim, when the legs are in their expanded condition, in which position the heel of each foot is seated against the top abutment with the toe resting against the top rim, above the bead, after being flexed past the bead, to lock each leg end to the table top.

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