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COLLAPSIBLE BEACH PICNIC TABLE

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This invention relates to folding tables and the like, and more especially, to a light, cheap, portable utility or picnic table adapted to be folded into a light and compact unit during transit to and from the shores of a home, an outing, a picnic or the like.

Today many costly, heavy and bulky tables are used by tourists, picnickers and people who follow sports or go on outings in their travels or have need for a strong, light and compact portable table around the home.

My invention solves the above problems by providing a strong, light, cheap and foldable portable table unit which may not only be used for picnics and outings but may be used for general utility around the home and the like.

My unique table, in general, comprises a universal support frame structure having sturdy foldable legs attached thereto and a top of suitable material fastened securely thereto in a conventional manner so that each embodiment of this invention may be folded for a compact table kit or a portable table unit as desired.

A primary object of this invention is to provide a light and sturdy universal frame or stand for supporting household objects or the like thereon.

Another object of this invention is to provide an attractive, cheap, strong, light and portable utility table which is foldable as a compact table kit during transit therewith.

A further object of this invention is to provide a tubular frame table unit which is sturdy and foldable so as to be easy and cheap to manufacture.

Another important object of the invention is to provide a light portable table in which the legs are hingedly secured at one end to the table frame and only frictionally engage an intermediate portion thereof with the table frame for supporting the table during use.

Other objects and features of novelty will become apparent from the following specification when considered in connection with the accompanying drawings in which several preferred embodiments of the invention are illustrated by way of example, and in which:

FIGURE 1 is a perspective view in elevation of a preferred embodiment of this invention;

FIGURE 2 is a side elevation view of FIGURE 1 showing in broken lines the legs in the folding position and in full lines the legs in a fixed position to support the table for receiving objects thereon;

FIGURE 3 shows in side elevation the table of FIGURE 1, in a folded position;

FIGURE 4 shows in plan the bottom of the new table in folded position;

FIGURE 5 is a partial sectional and plan perspective view of FIGURE 1 showing the interrelation of a corner of the table frame, canvas thereon and pivoted leg means secured to the frame of the invention;

FIGURE 6 is a sectional view in elevation of FIGURE 5 taken substantially on lines 6—6 looking in the direction of the arrows;

FIGURE 7 is a perspective view in elevation of a second embodiment of the invention in which the table frame may be folded at the middle and in which each pair of legs are secured together by a rigid cross-member;

FIGURE 8 is an elevational side view of FIGURE 7;

FIGURE 9 is an end view of FIGURE 7;

FIGURE 11 shows a partial bottom view of FIGURE 7;

FIGURES 10 and 12 show various folded views of FIGURE 7 before transit;

FIGURE 13 is a partial sectional view showing the locking hinge and detent means of the horizontally stable hinge joint of the table frame of FIGURE 11, taken substantially on lines 13—13, looking in the direction of the arrows; and

FIGURE 14 is a sectional view of the locking bulbous portion of the detent locking hinge joint taken substantially on lines 14—14 of FIGURE 13 looking in the direction of the arrows.

Like parts are represented by like reference characters in the drawings.

Referring now to the exemplary embodiment of the invention as shown by FIGURES 1 through 6, the new table structure comprises a tubular frame structure suitably fabricated by welding and the like, legs 22 are pivotally connected by suitable pin means 24 to frame structure 20 and foldable as shown by arrow A of FIGURE 2. Frame 20 is covered by a desirable suitable material 26 attached thereto in any suitable conventional manner.

In FIGURE 6, leg 22 is extended in its support position to support framework 20. Leg 22 is pivotally connected by pin means 24 to frame means 20 and uniquely engages by friction also frame 20 at point 28, as shown. Legs 22 are spaced by spacer 30 on pin 24 so that legs 22 will properly contact frame 20 at points 28, as shown in FIGURES 4 and 6.

Referring now to the embodiment of the invention as shown by FIGURES 7 through 14, the new table structure comprises tubular frame structures suitably fabricated by welding and the like and having a detent locking hinge means 41, legs 42 are pivotally connected by suitable pin means 44 to frame structure 40 and foldable as shown by arrow B of FIGURE 8. Frame 40 is covered by a desirable suitable material 46 attached thereto in any suitable conventional manner.

In FIGURE 8, legs 42 as indicated in full lines are extended in their support positions to support framework 40. Legs 42 are pivotally connected by pin means 44 to frame means 40 and uniquely engages by friction also frame 40 at points 48, as shown in FIGURE 11. Legs 42 are spaced by spacer 50 on pin 44 so that legs 42 will properly contact frame 40 at points 48. Each pair of legs 42 are fixedly secured together in a suitable manner by cross member 43 of FIGURES 7, 9 and 11.

Table 38 may be compactly folded as shown in FIGURES 10 and 12 for portability during transit.

Referring more especially to FIGURES 13 and 14, the detent locking hinge means 41 comprises the flattened ends D and E of tubular frame members 40 suitably secured together by pin means 54. In operation, hinge means 41 may be folded downward and is rigid when in the horizontal position, of FIGURE 13, when there is a downward pressure exerted on table 3, as the slanting edge 56 of tubular end member E contacts upsett bulbous detent means 58 of tubular end member D, as shown in FIGURES 13 and 14.

If desired, the frame embodiment of the invention of FIGURES 1 through 6 may be foldable at an intermediate position of frame 20 as taught by hinged detent joint 41 of FIGURES 7 through 14.

Covering 26 and 46 in the two embodiments of the invention as shown in FIGURES 1 through 14 may be fabricated in a conventional manner from aluminum if desired, or of canvas, nylon, polypropylene or any flexible, strong fabric or material that may be stretched taut and the like, as shown.

It is to be understood that the particular embodiments of the invention described herein are presented by way
of illustration only, and not by restriction, and that various other arrangements, variations and adaptations may be devised therefor without departing from the true scope of the invention.

I claim:

1. A foldable table structure comprising a continuous rod-like member having a rectangular shape with first and second pairs of opposed sides to define a frame, a flexible material attached to all sides of said frame to form a supporting surface thereon, there being openings in said supporting surface at the corners of said frame, a plurality of leg members with the upper ends thereof being pivotally connected to the inner faces of said first pair of opposed sides of the frame adjacent the ends thereof, said leg member pivot connections being so spaced from the ends of said first pair of sides that outward pivoting movement of said leg members is limited by the engagement of said leg members with the second pair of opposed sides of said frame.

2. A foldable table structure as claimed in claim 1 whereby the length of the sides constituting said first pair is longer than the sides constituting said second pair, the pairs of leg members adjacent each side of said second pair of opposed sides being interconnected.

3. A foldable table structure as claimed in claim 1 with said leg members forming an angle slightly greater than 90° with said frame when in the outward position.

4. A foldable table structure as claimed in claim 2 with there also being openings in said supporting surface at the midpoints of said first pair of opposed sides, locking hinge means at said midpoints of said first pair of sides for folding said frame in one direction but locking the frame against folding in the other direction when said frame is in the flat unfolded position, said hinge means including a detent and a cam edge engageable thereby to permit folding in one direction.

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