United States Patent [19]

Burr

[11] **3,818,844**

[45] **June 25, 1974**

[54] **TRESTLE TYPE TABLE WITH FOLDING LEGS**

[75] Inventor: **Alan Carleton Burr,** East Norwalk, Conn.

[73] Assignee: **Howe Furniture Corporation,** New York, N.Y.

[22] Filed: **Mar. 12, 1973**

[21] Appl. No.: **340,464**

[52] **U.S. Cl.** **108/132,** 248/188.6

[51] **Int. Cl.** **A47b 3/08**

[58] **Field of Search** 108/132, 131, 129, 133; 248/188.6, 188

[56] **References Cited**

UNITED STATES PATENTS

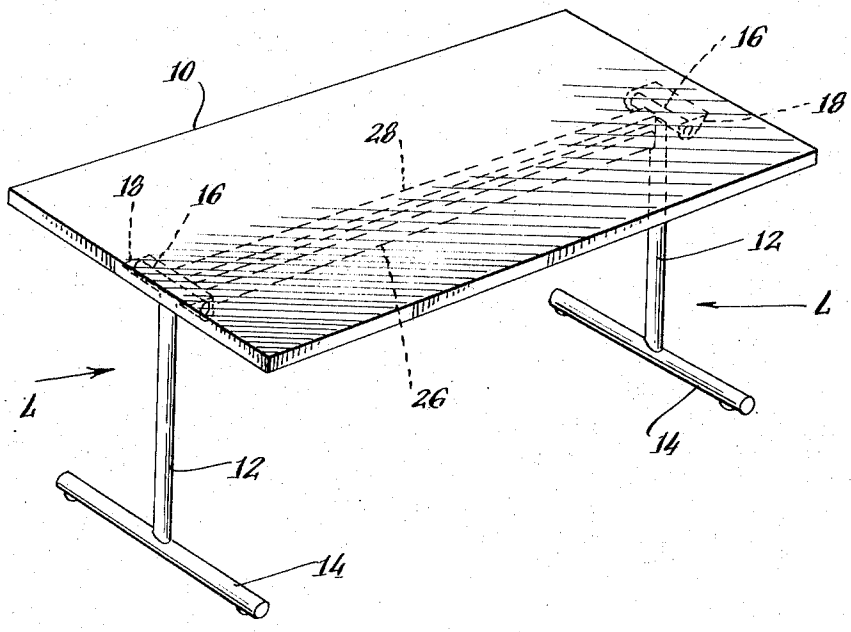
155,990	10/1874	Valley	108/131
965,338	7/1910	Smiljanic	108/131
1,923,281	8/1933	Smith	108/131
2,546,816	3/1951	Benvissuto	108/130
3,628,471	12/1971	Burr	108/132

Primary Examiner—Bobby R. Gay
Assistant Examiner—Darrell Marquette
Attorney, Agent, or Firm—John W. Hoag; Robert A. Buckles; Garold E. Bramblett, Jr.

[57] **ABSTRACT**

A pair of I legs are attached to a table top spaced apart longitudinally of the top and mounted for folding and unfolding movement longitudinally of the top. A stretcher bar is rotatably supported by, and comprises part of, a bracket assembly, which is mounted on the top between the leg mountings for folding and unfolding movement transversely of the table top. Projecting from the ends of the stretcher bar are pin means with heads adapted, in one angular position of the bar to enter slots in the legs respectively when the bracket assembly is in unfolded position and the unfolded legs are moved toward the ends of the bar, and to extend across the slots from within the legs when the bar is rotated to another angular position. A combination bar handle and bar locking means is provided.

3 Claims, 7 Drawing Figures



PATENTED JUN 25 1974 3,818,844

Fig. 1

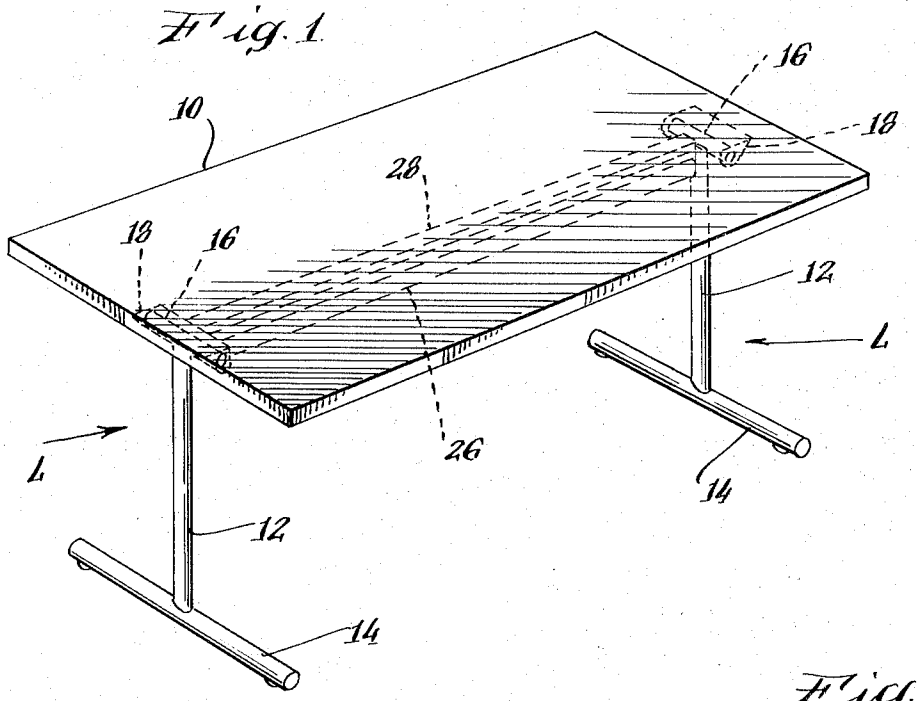


Fig. 2

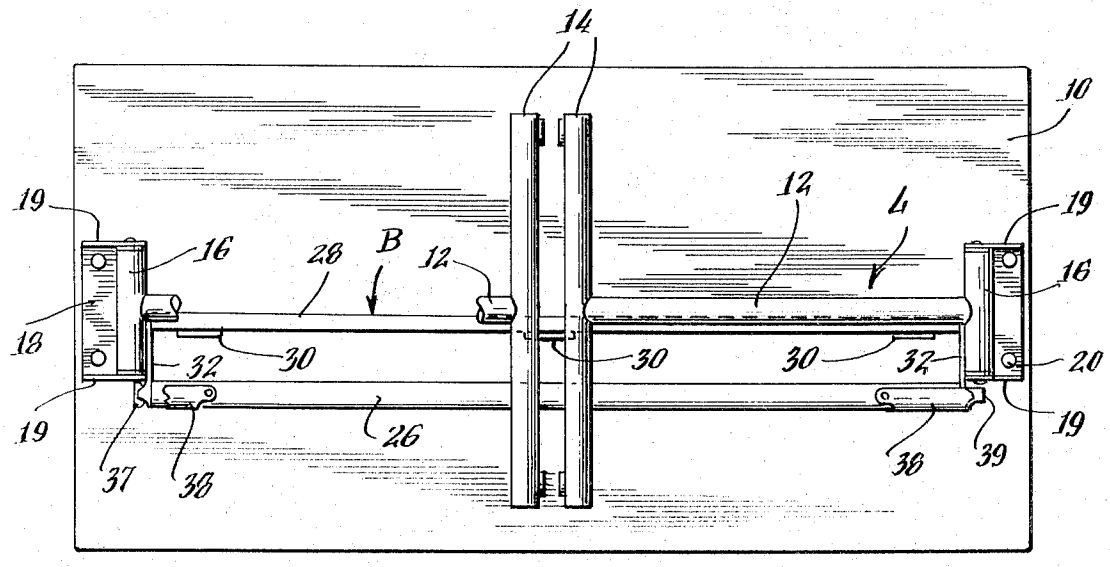


Fig. 3

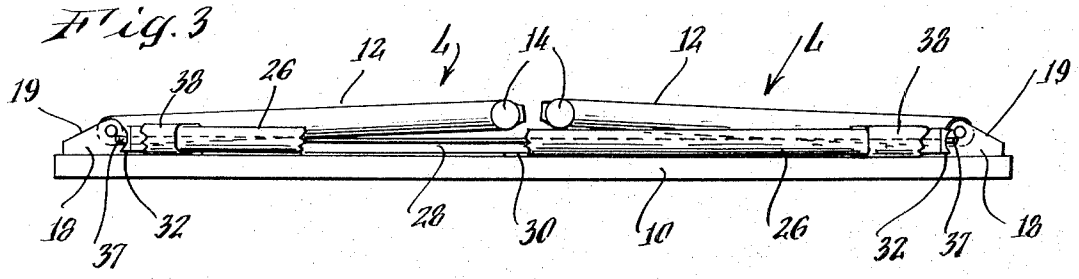
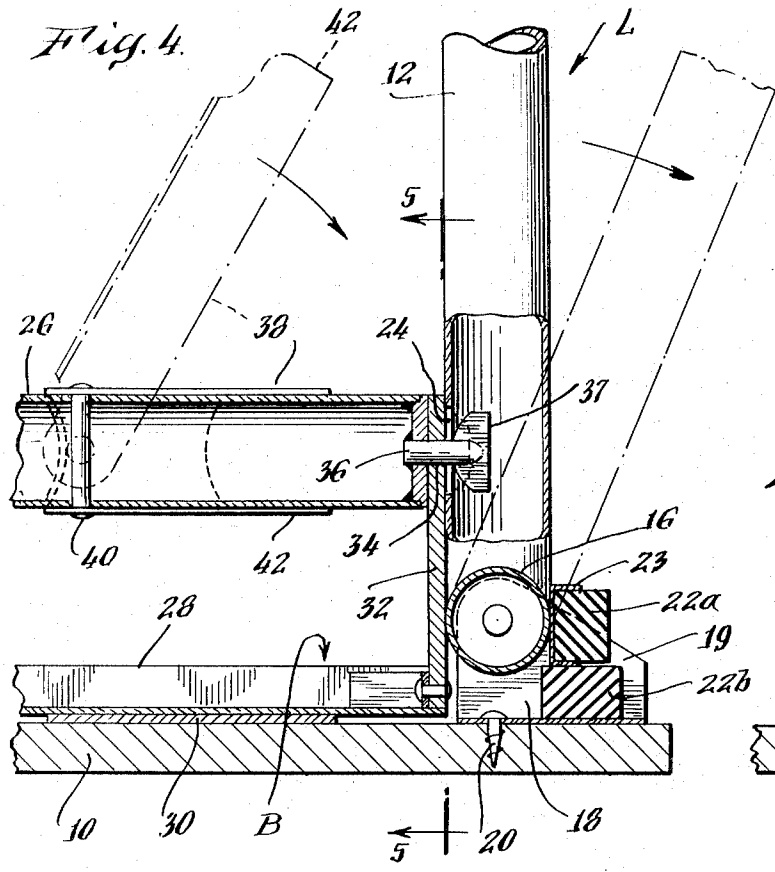


Fig. 4.



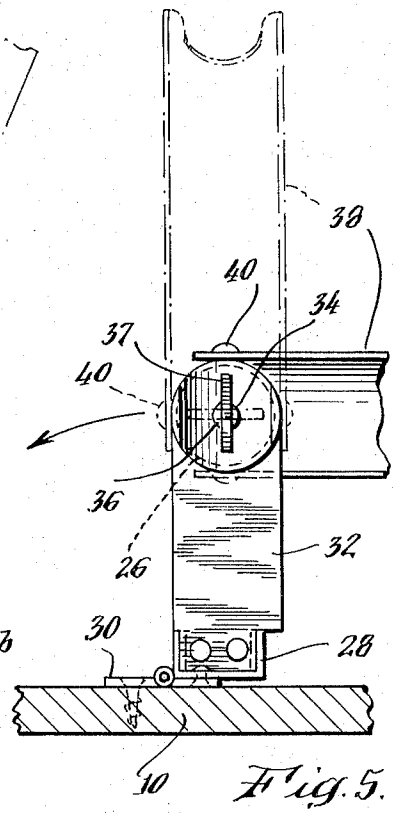


Fig. 5.

Fig. 6.

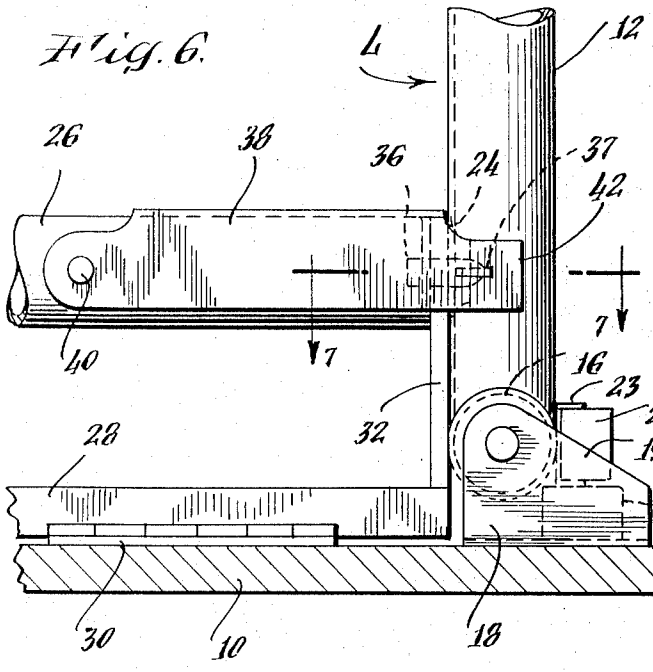
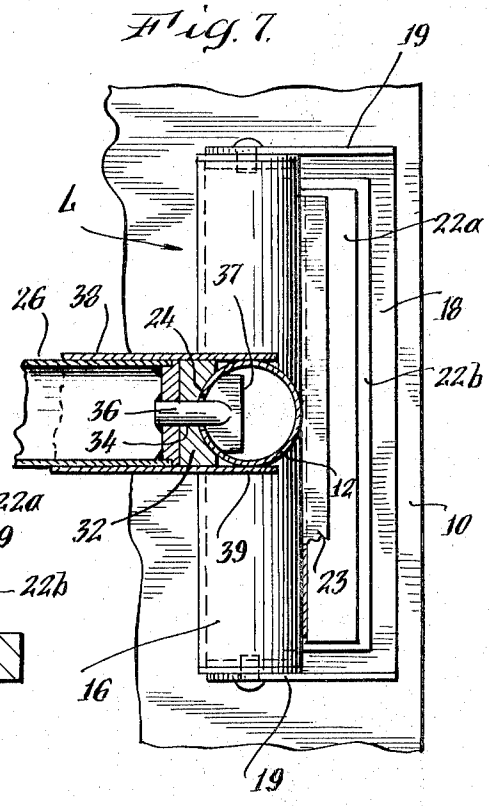


Fig. 7.



TRESTLE TYPE TABLE WITH FOLDING LEGS

FIELD OF THE INVENTION

This invention relates to a folding trestle type table and particularly to locking means controlled by a rotatable bar which engages and interconnects the table legs when they are in unfolded, operative position.

Trestle type tables with inverted T legs fixed to the table top have long been known. It is an object of this invention to provide tables similar in appearance to the non-folding trestle type tables of the prior art but with support means which may be moved between, a folded position substantially parallel and adjacent to the under surface of the top, with the legs folded toward one another and the stretcher bar disconnected from the legs and swung over against the top in a direction at right angles to the folding and unfolding movements of the legs, and an unfolded position in which the legs are each disposed at a right angle to the top and are interconnected and held in rigid, operative top supporting position by the said stretcher bar.

SUMMARY OF THE DESCRIPTION

A pair of I shaped legs are hinged to the under surface of a table in spaced relation longitudinally of the top for separate swinging movement longitudinally of the top. A stretcher assembly comprising, a stretcher bar for interconnecting the legs in unfolded position, and bracket means for supporting the stretcher bar so that it is at all times rotatable around its longitudinal axis, is hinged to the top between the said legs for swinging movement transversely of the top. The leg mounting means permits each leg when unlocked from the stretcher bar to swing through an arc of more than 90°. Each leg may swing from a position in which it is normal to the top and in abutting and engaged relation to one end of stretcher means, first in a direction away from the other leg and the adjacent end of the stretcher bar to disengage the stretcher bar, and then after the stretcher assembly has been swung transversely of the top, in a direction toward the other leg to a position substantially parallel to the top but overlying the folded over stretcher assembly.

The stretcher bar is mounted by its supporting bracket in such a way that it is at all times rotatably around its longitudinal axis. Projecting outwardly from the respective ends of the stretcher bar are pins with enlarged flat heads adapted when disposed at the proper rotary angle and when the legs and the stretcher assembly are in unfolded position to enter into slots provided in the opposed leg members. The rotary angle of the pin heads is controlled by rotation of the stretcher bar. For locking the legs to the stretcher bar when the legs and the stretcher assembly are in unfolded position the legs are swung outwardly somewhat beyond their unfolded operating position and the pin heads are aligned with the opposed slots in the legs by rotation of the stretcher bar; the legs are then moved inwardly to receive the pin heads in the slots, and the stretcher bar is then further rotated to rotate the pin heads within the legs and behind the slots to a position in which they are disposed across the slots and cannot be withdrawn through the slots until the stretcher bar is again rotated to align the said heads with the slots. When the stretcher assembly is folded over transversely of the top the legs can be folded down over the top with the foot members of the legs disposed over the already folded swinging bracket which includes and provides the mounting for the rotatable stretcher bar.

The invention will be best understood by reading the following description in connection with the drawings in which:

FIG. **1** is an isometric view of the table with the legs unfolded and locked in operative position,

FIG. **2** is a plan view looking at the under surface of the top with the legs and the leg locking means in folded position,

FIG. **3** is a side view of the structure as shown in FIG. **2,**

FIG. **4** is a side view of a portion of the inverted structure partly cut away and in section showing the relation of a leg in unfolded position and the stretcher bar before being rotated into locking position, and showing means attached to the stretcher bar, which in one position is operative as a handle to facilitate rotation of the bar, and in another position is operative to prevent inadvertent rotation of the bar,

FIG. **5** is a view taken in the line **5—5** of FIG. **4,**

FIG. **6** is similar to FIG. **4** but shows the stretcher bar rotated to locking position and the means attached to the stretcher bar moved from handle forming angular position to a position in which the two arms of its bifurcated forward portion extend on opposite sides of a leg and prevent the stretcher bar being inadvertently rotated, and

FIG. **7** is a top view partly in section taken on the line **7—7** of FIG. **6.**

DESCRIPTION

In the embodiment of the invention illustrated in the drawings a trestle type table is shown comprising, a table top **10** having legs L spaced apart longitudinally of the top and each rotatably mounted by bracket means **18** on the lower surface of the top for movement between an unfolded position, beyond operative position substantially normal to the top, and an inoperative position in which the legs are folded over toward one another into a position in which they overlie the top and are disposed in a plane substantially parallel to the top. Disposed longitudinally of the top **10** on its under surface, between the longitudinally spaced fixed brackets **18,** a swinging bracket means B is provided which includes a trestle bar **26** by the rotation of which the legs L may be locked in unfolded position or unlocked for folding. The bracket means B is movable transversely of the table between an unfolded, operative position in which it is normal to the under surface of the top and a folded position in which it overlies the under surface of the top, and is disposed beneath the folded legs.

Each leg L is I shaped and comprises an intermediate, preferably tubular portion **12** with the parallel cross bars **14** and **16,** preferably also tubular, at its respective ends. The cross bar **14** at the outer end of portion **12** constitutes a foot extending transversely of the top. The cross bar **16** is mounted for rotation between the end flanges **19** of a channel shaped bracket **18** which is disposed transversely of the top, extending across the longitudinal midline of the top, the bracket **18** being secured to the under surface of the top in any suitable way as by screws **20.**

Secured to the cross bar **16** and opening outwardly toward an end of the top is a three-sided keeper **23** in

which is mounted a resilient bumper member **22***a* which is in turn resting on a second resilient bumper member **22***b* which may be secured on bracket **18** in any suitable way. In the process of locking legs L to the stretcher bar **26** or releasing the legs from the stretcher bar **26** the legs are rotated outwardly, toward the table ends respectively, beyond a position in which they are normal to the top, and when rotated outwardly in this manner the resilient bumper members **22***a* and **22***b* serve as yielding stop means allowing some swinging of the legs beyond a right angle position with respect to the top, but preventing unnecessary and excessive outward swinging movement of the legs.

The swinging bracket means B comprises, a channel member **28** disposed longitudinally of the top **10** on its under surface and extending between the transversely extending leg supporting brackets **18.** Channel member **28** is mounted to the under surface of the table top by hinge means **30** which permit the member to swing transversely of the top through 90°, between a position in which its intermediate portion is in abutting relation to the top and a position in which one of its side flanges is in abutting relation to the top.

Fixed to the channel member **28** and projecting outwardly from the channel member **28** adjacent its ends are the bracket arms **32** each of which adjacent its outer end has a bore **34** extending through it longitudinally of the top, and suspended between the outer ends of arms **32,** by pins **36,** which extend through the said bores respectively, is the stretcher bar **26.** Pins **36** extend beyond the arms **32** and their outer ends terminate respectively in the thin but wide heads **37** which in one angular position are adapted to be aligned with a slot **24** in an opposed leg portion **12.** It will be understood that the pins **36** are rotatable within the bores **34** in arms **32** and that accordingly the stretcher bar **26** may be rotated around its longitudinal axis to change and control the position of the enlarged head portions **37** of pins **36.**

For locking the legs L in unfolded operative position the legs are moved outwardly beyond their top supporting position in which they are normal to the top, and stretcher bar **26** is rotated to align the heads **37** with the opposed slots **24** in the legs, after which the legs are swung back to normal position, during which movement the heads **37** enter into the legs L through slots **24** respectively. Stretcher bar **26** is then rotated through substantially 90° to rotate the heads **37** within the legs to a position extending across the slots and thus locking the legs to the ends of the stretcher bar and in unfolded operative position.

To unlock the legs the stretcher bar **26** is rotated to align heads **34** with slots **24** and the legs are swung outwardly sufficiently to clear the heads from within the legs, after which if desired the bracket assembly B may be folded transversely of the top and the legs L may be folded inwardly toward one another to extend along the top and over the folded bracket assembly.

Pivotally mounted on stretcher bar **26,** as by pivot **40** is a half round member **38** which may be moved between a position resting on and extending partly around bar **26** and a position in which it is angularly related to bar **26** and may be used as a handle for rotating bar **26.**

The outer end of member **38** is bifurcated providing two spaced parallel arms **39, 39** which, when member **38** is resting on bar **26,** extend on opposite sides of the portion **12** of a leg L and thus prevent bar **26** from being inadvertently rotated.

What I claim is:

1. A folding trestle table comprising

a top,

a pair of legs spaced longitudinally of the top, and means supporting the legs from the top for folding and unfolding movement longitudinally of the top,

a trestle bar assembly including a bracket supported on the under surface of the top for swinging movement transversely of the top, and a trestle bar member carried by the bracket by means permitting the bar to be rotated around its longitudinal axis

the trestle bar having pins projecting outwardly from its ends respectively, said pins having heads of different cross-sectional dimensions, and the legs defining slots adapted when the parts are unfolded to receive the heads respectively when the heads are presented at the proper rotational angle,

the means for mounting the legs being adapted to permit the legs to be swung outwardly beyond operative position and back to engage and disengage the heads of the pins when the heads are properly positioned by rotation of the bar.

2. The table structure claimed in claim **1** in which each leg is I shaped having parallel cross bars at either end of an intermediate portion, means for mounting one cross-bar of each leg on the under side of the top for rotation around an axis extending transversely of the top, and means positioned between the mounted cross bar and an end of the table for yieldingly and resiliently opposing unfolding movement of the leg substantially beyond its operative table supporting position.

3. The table structure claimed in claim **1** in which the bracket comprises a member extending longitudinally of the top between the longitudinally spaced leg mounting means, arms projecting from said member and normal to said member, said arms each having a bore extending through it longitudinally of the table, the said pins extending through the bores in said arms respectively which are thereby rotatably mounted within said assembly, and hinge means interconnecting said bracket member and the table top and disposed for folding and unfolding movement of the trestle bar assembly transversely of the top.

* * * * *