

Dec. 12, 1967

A. F. KRUEGER

3,357,729

FOLDING BRACE LOCK FOR TABLE LEG

Filed Aug. 3, 1966

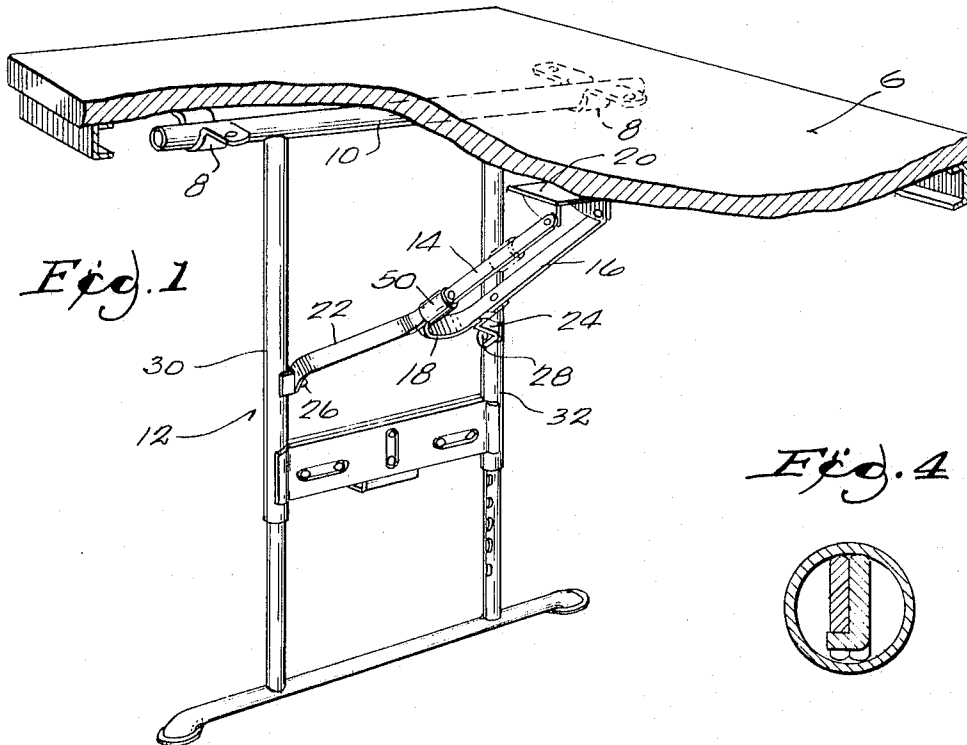


Fig. 1

Fig. 4

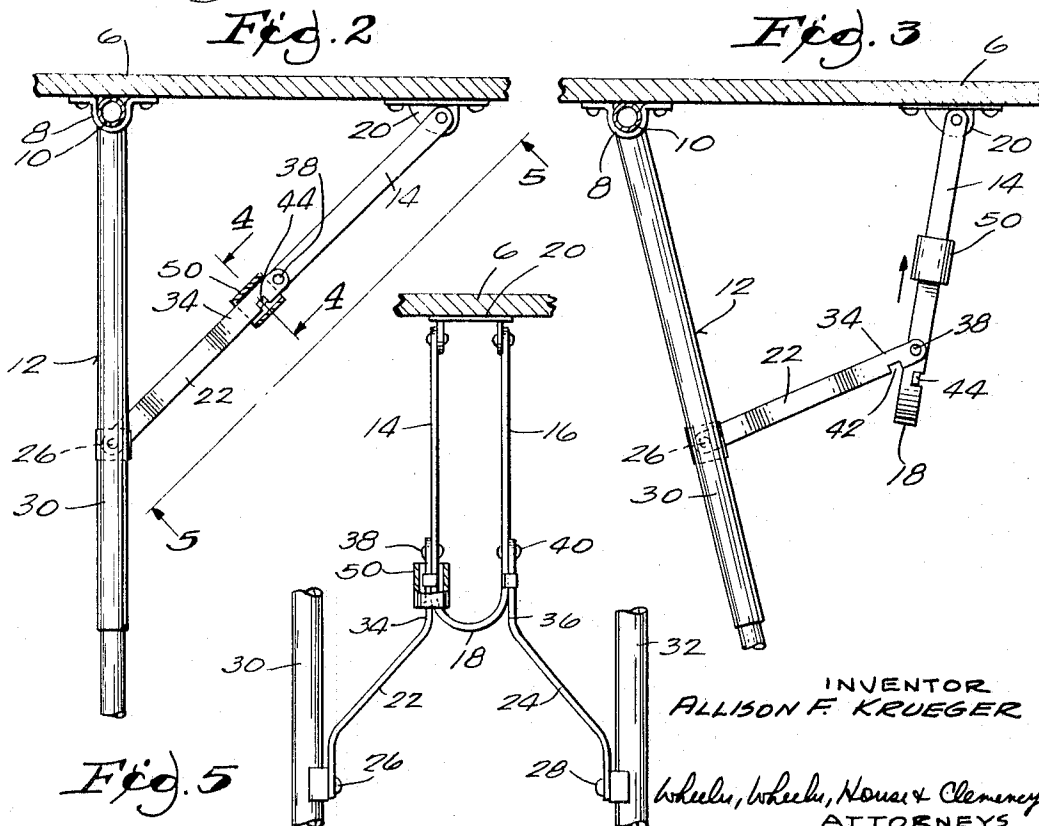
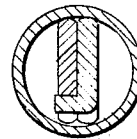


Fig. 2

Fig. 3

Fig. 5

INVENTOR
ALLISON F. KRUEGER

Wheeler, Wheeler, Nourse & Clemency
ATTORNEYS

1

3,357,729

FOLDING BRACE LOCK FOR TABLE LEG

Allison F. Krueger, 226 Miramar Drive,
Green Bay, Wis. 54301

Filed Aug. 3, 1966, Ser. No. 570,036

1 Claim. (Cl. 287-98)

ABSTRACT OF THE DISCLOSURE

Strap-like brace members hingedly connected with each other and respectively connected pivotally with a table and with a table leg or the like have portions which register when such members are aligned. These registering portions are provided with lock means for defining their registering position and a sleeve slidable along one of such members is fitted to the members in such manner that, when they are in registration, the sleeve passes across the pivotal connection between the members to hold them in alignment and thereby to prevent collapse of the brace.

Upon retraction of the sleeve, the respective component members of the brace may be hinged to collapse the brace so that the leg may be folded beneath the table.

Background of the invention

Various hinged braces have been common in the past, and some have had locks, but none of them appears to have had the simple and effective lock herein provided.

Summary of the invention

Generally parallel legs are integrally joined at their lower ends by an arcuate bight and pivotally connected at their upper ends to a table top. Separate links connected with table supporting posts are pivoted to the legs of the brace. Below the pivot the links lap the brace legs for an appreciable distance. The extent of lap is no greater than the distance from the pivot point to the bight so that the lapping portions of the brace leg and the corresponding link can be releasably encircled by a locking sleeve which is received between the pivot point and the bight and for which the bight provides a stop to hold it in a locking position to which it is returned by gravity when displaced. The lapping portions of the brace leg and associated link have notch and lug means interlocking to define aligned positions of the leg and link to receive the locking sleeve.

Description of the invention

In the drawings:

FIG. 1 is a fragmentary perspective view of a table equipped with a folding leg and brace embodying the invention, the brace being locked in its open position.

FIG. 2 is a view showing the brace and leg in side elevation, portions of the table top and the locking sleeve being shown in section.

FIG. 3 is a view similar to FIG. 2 showing the lock retracted to release the brace parts for pivotal movement, the brace and leg being shown partially collapsed.

FIG. 4 is a view taken in cross section on the line 4-4 of FIG. 2.

FIG. 5 is a view looking at the underside of the brace from the standpoint of the line 5-5 in FIG. 2, portions of the locking sleeve being broken away.

The table top 6 is provided with brackets 8 to which the tubular cross member 10 of the leg structure 12 is pivoted to permit the leg structure to move from its

2

normal position of FIG. 2 to a collapsed position against the underside of the table top 6.

To hold the leg structure in its erect table-supporting position as shown in FIG. 2, a brace is provided which preferably includes strap-like upper and lower members respectively pivoted to each other and to the table top and to the leg structure. The upper members of the brace comprise parallel legs or links 14 and 16 made of a single piece of strap iron with a broad bight 18 at its lower end. The upper ends of the links 14 and 16 are pivoted to a bracket 20 attached to the underside of the table top 6.

The lower elements of the brace comprise arms 22 and 24 which are respectively pivoted at 26 and 28 to the leg members 30 and 32. The links 22 and 24 converge upwardly but have parallel upper portions 34, 36 which extend beside and in substantial face contact with the legs 14 and 16 for a distance before being pivotally connected thereto. Connection to legs 14 and 16 is made by pintles 38, 40 respectively. As best shown in FIGS. 2, 3 and 4, the portions of the brace elements 22 and 14 which are in parallel face contact during use of the table are respectively provided with a notch 42 and a lug 44 which, in the aligned position of the parts, are inter-engaged as shown in FIG. 4.

When the brace elements 14 and 34 are aligned as shown in FIG. 2, the lock sleeve 50 will slide past the pintle 38 to embrace the parallel portions of the respective links and the lug 44 engaged in notch 42. Further downward movement of the sleeve is arrested by the bight 18 which connects the legs or links 14, 16. When the parallel portions of the respective links are thus embraced by the lock sleeve 50, the brace is rigid. Its parts cannot pivot from the extended position of FIG. 2 toward the partially collapsed position of FIG. 3 and the brace therefore securely defines the upright position of the leg structure which is desirable for use of the table.

When the lock sleeve 50 is manually raised from the position of FIGS. 2, 4 and 5 to the position shown in FIG. 3, it becomes readily possible to pivot brace elements 22 and 24 with respect to brace elements 14 and 16, thus collapsing the brace and permitting the leg structure 12 to be folded beneath the table 6.

I claim:

A lockable folding brace comprising an upper link having a pair of parallel legs which are laterally spaced and connected by a curved connecting bight portion integral with the ends of said legs, and lower link means comprising separate links with parallel portions pivoted to the respective legs above said bight portion for movement between a folded position and a position in which the lower legs are aligned with respective links, the links and legs having longitudinally extending portions which are lapped in the last mentioned position, and means for restraining pivotal movement between the respective links and said legs from said last mentioned position and comprising a sleeve member slideable along one of said legs from a point above said pivotal connection to a point at which the sleeve is engaged about the said lapped portions of said one leg and said one link, each of the lapped portions of the legs and links having notch and lug means interlockingly engaged in said last mentioned position, and one such notch and lug means being encircled by said sleeve member when said sleeve member engages said lapped portions, the curve of the bight diverting from the plane of the link encircled by said member and serving as a stop for the sleeve member, the distance between the bight portion and the pivot point on the leg encircled by the sleeve member being

3

less than the length of the sleeve member so that the sleeve rests on the bight and extends along the last mentioned leg to a point just below the last mentioned pivot point.

References Cited

UNITED STATES PATENTS

1,788,102	1/1931	Gilbert.	
1,836,943	12/1931	Temple	108—131
2,485,178	10/1949	Weinkauf	108—132

4

2,665,181	1/1954	Pucci	108—131
3,230,962	1/1966	Hoiness et al.	287—99 X

FOREIGN PATENTS

870,371	12/1941	France.
---------	---------	---------

5

CARL W. TOMLIN, *Primary Examiner.*

A. V. KUNDRAT, *Assistant Examiner.*