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ADJUSTABLE SUPPORT FOR TABLES

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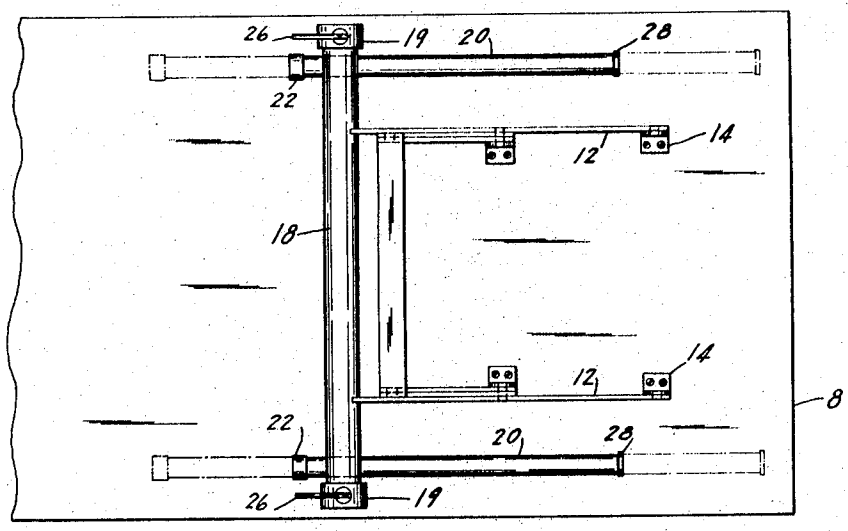


Fig. 3

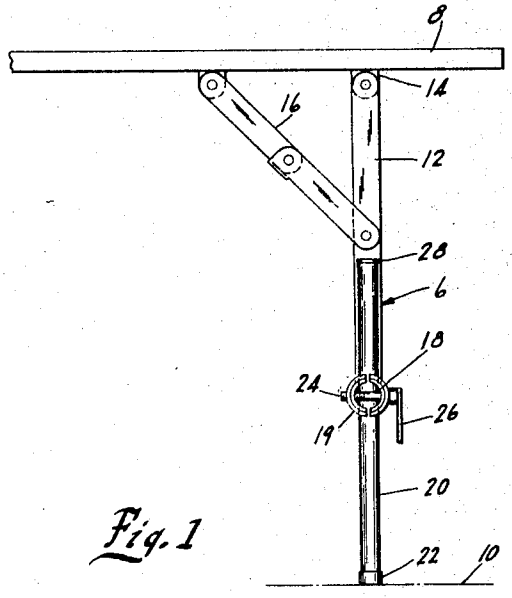


Fig. 1

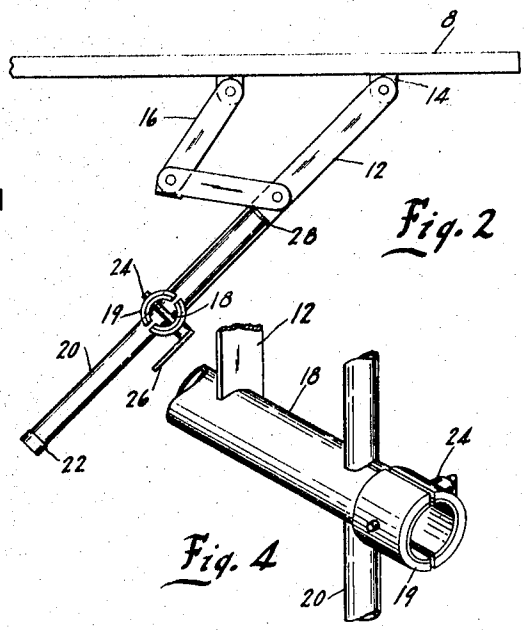


Fig. 2

Fig. 4

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ADJUSTABLE SUPPORT FOR TABLES

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ABSTRACT OF THE DISCLOSURE

An adjustable support for a table including spaced apart upper members secured to the table. The upper members have lower ends which depend from the table and are joined to a horizontal bar. Lower legs are adjustably mounted in the horizontal bar and depend therefrom to support the table at the desired height.

BACKGROUND OF THE INVENTION

Field of the invention

The present invention relates generally to furniture construction and is more particularly concerned with improved means for varying the height of tables by means of adjustable supports.

Description of the prior art

The height of work tables, and the like, must frequently be adjusted or varied in accordance with the height of the user, size of the object being worked on, or type of work being performed. It is generally desirable to provide such adjustments over a range of heights and through an infinite series of adjustments. The table is provided with adjustable supports for these purposes which position the table the desired height above the floor.

Prior art adjustable height tables, particularly those in which the supports fold or collapse along the underside of the table, have often incorporated telescoping legs in which one portion of the leg fits inside a second portion of the leg and is extensible therefrom. Although such legs provide adjustable height to the table, they are prone to jamming because of the close tolerances required to provide sufficient rigidly to the leg. The range of adjustment of telescoping legs is generally limited to twice the length of one of the portions.

In addition, where the table must support heavy loads, it is necessary to provide a latch or locking means engaging the leg portions which adjustably locks the second portion of the leg in the first portion. Such latching means generally limits the adjustment of the supports to predetermined intervals or increments.

Summary of the invention

It is, therefore, the object of the present invention to provide an adjustable support for a table which is infinitely and easily adjustable over a wide range of heights, and which is compactly storable along the underside of the table.

Briefly, the present invention provides an adjustable support for a table including at least one upper member secured to the table and having a lower end depending therefrom. A horizontal bar is joined to the lower end of the upper member. A lower leg is adjustably mounted in the horizontal bar and depends therefrom.

Brief description of the drawings

FIGURE 1 is a side elevation of the adjustable support of the present invention including a portion of the table;

FIGURE 2 is a side elevation similar to FIGURE 1 showing the adjustable support partially collapsed in preparation for storage;

FIGURE 3 is a partial plan view of the underside of the table showing the adjustable table leg fully collapsed and stored along the underside of the table; and

FIGURE 4 is a perspective view of a portion of the adjustable support of the present invention.

Description of the preferred embodiment

Referring now to the figures, and particularly to FIGURE 1, there is shown therein the adjustable support of the present invention indicated generally by the numeral **6**. Adjustable support **6** positions platform or table **8** above floor **10** at a height dependent on the length of the support.

Adjustable support **6** includes one or more spaced upper members **12** which may be pivotally fastened to the underside of table **8** by brackets **14**. In the embodiment of the invention shown in the figures, a pair of such members **12** are provided. Upper members **12** lie in a common plane and are retained in the vertical position by collapsible braces **16** which are also pivotally fastened to table **8** and to members **12**. Braces **16** may include strut **17** which lends additional rigidity to braces **16** and upper members **12**.

A horizontal bar **18** is joined to the lower ends of upper members **12**. Horizontal bar **18** may include terminal ends extending beyond the lower ends of upper members **12**. While bar **18** is shown as tubular in the figures, it may be of other configurations if desired.

One or more lower legs **20** are mounted on, and depend from, horizontal bar **18** so as to contact floor **10** through rubber tips **22**. Specifically, lower legs **20** may extend through appropriately sized holes in horizontal bar **18**. While lower legs **20** may extend through the bar at various positions and angles in accordance with the use to which table **8** is to be put, in the embodiment shown in the figures, lower legs **20** extend through bar **18** near the terminal ends of the bar parallel to, and in the same plane as, upper members **12**.

Lower legs **20** may be retained in horizontal bar **78** by splitting the ends of the bar extending beyond the holes mounting legs **20** so as to form a pair of halves surrounding each of the legs, as shown in detail in FIGURE 4. The terminal ends of bar **18** may be reinforced by collars **19** which are also split. The halves are drawn into engagement with the lower legs by inserting a bolt **24** or other fastener, partially threaded along its length, through axially aligned holes in the halves. One end of bolt **24** has a handle **26** or other means of rotating the bolt affixed thereto while the other end is threaded in a threaded hole in one of the halves. Lower legs **20** are retained in bar **18** by rotating bolts **24** by handle **26** so as to draw the halves of the split ends of bar **18** together and into engagement with the lower legs.

The height of table **8** is easily adjusted by loosening bolts **24** and extending or retracting lower legs **20** and then retightening bolts **24**. Flanges **28** prevent lower legs **20** from becoming dismounted from bar **18**. Lower legs **20** may be retracted or extended by different amounts to compensate for an uneven floor **10**.

Adjustable support **6** may be stored along the underside of table **8** by collapsing braces **16**, as shown in FIGURE 2, so as to allow adjustable support **6** to pivot toward table **8** on pivots **14**. FIGURE 3 shows the support in the storage position. Lower legs **20** may be retracted in horizontal bar **18** to a position along side upper members **12**, thereby contributing compactness to adjustable support **6** when in the stored position. It will be appreciated that as lower legs **20** are positioned alongside the upper members, the length of the lower legs **20** may be increased by any desired amount, as shown in phantom in FIGURE 3, while still retaining the compact storage fea-

tures of the adjustable support. This increases the range of heights through which the table may be adjusted.

It also provides a convenient means of locking adjustable support **6** in the collapsed position, since with lower legs **20** retracted to the extent shown in phantom in FIGURE 3, flange **28** will contact the underside of table **8** as soon as an attempt is made to pivot adjustable support **6** away from table **8**, preventing further pivoting of the support.

While the embodiment of the invention described above is, at present, thought to be preferred, it will be appreciated that modification or alteration may be made thereto without departing from the spirit of the invention.

I claim:

1. An adjustable support for a table comprising: a pair of spaced apart elongated upper leg portions, each of said portions having a first end secured to the underside of the table and a second end extending downwardly therefrom, said upper leg portions lying in a common plane; a horizontal bar joined to said second ends of said upper leg portions and lying in said common plane; and a pair of elongated lower leg portions adjustably mounted on said horizontal bar for varying the length of said lower leg portions, said lower leg portions being mounted on said horizontal bar at positions horizontally spaced along said bar from the junctures of said upper leg portions and said bar, whereby compressive loads placed on the support by usage of the table are transmitted between said upper and lower leg portions by the horizontal bar.

2. The adjustable support according to claim **1** wherein said spaced apart upper leg portions are secured to hinges affixed to the underside of the table for movement between a supporting position in which said support extends downwardly from the underside of the table and a storage portion wherein said support lies along the underside of the table with said leg portions parallel thereto.

3. The adjustable support according to claim **2** wherein said horizontal bar has a center portion separating a pair of terminal portions, said horizontal bar being joined to said second ends of said upper leg portions at the center portion, said lower leg portions being mounted in said horizontal bar adjacent the terminal portions.

4. The adjustable support of claim **2** wherein said upper leg portions are parallel and said lower leg portions are adjustably mounted on said horizontal bar so as to be parallel to said upper leg portions, said lower leg portions being of greater length than said upper leg portions, whereby said adjustable support, when in the storage position, may be retained therein by positioning said lower leg portions on said horizontal bar so that the ends of said lower leg portions extend beyond the first ends of said upper leg portions and said hinges.

5. The adjustable support according to claim **1** wherein said upper leg portions are parallel and said low leg portions are adjustably mounted on said horizontal bar so as to be parallel to said upper leg portions.

6. The adjustable support according to claim **3** wherein said lower leg portions extend through said horizontal bar and said terminal portions are split to form a pair of halves surrounding said leg portions, said terminal portions having a means associated therewith to move said halves into engagement with said lower leg portions to retain them in the bar.

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U.S. Cl X.R.

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