# United States Patent [19]

**DeWilde**

[11] **3,834,325**

[45] **Sept. 10, 1974**


[54] **TABLE**


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[52] **U.S. Cl.** ..... **108/96,** 211/153, 108/109

[51] **Int. Cl.** ..... **A47b 21/02**

[58] **Field of Search** ..... 108/96, 109, 110, 107, 108/59; 211/153; 312/194, 195



[56] **References Cited**

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[57] **ABSTRACT**

A table having a top with an adjustable panel whch may be raised and lowered relative to the remainder of the top to provide a work surface whose elevation above the floor may be adjusted. The table is designed for use primarily by wheel chair patients.


**3 Claims, 4 Drawing Figures**

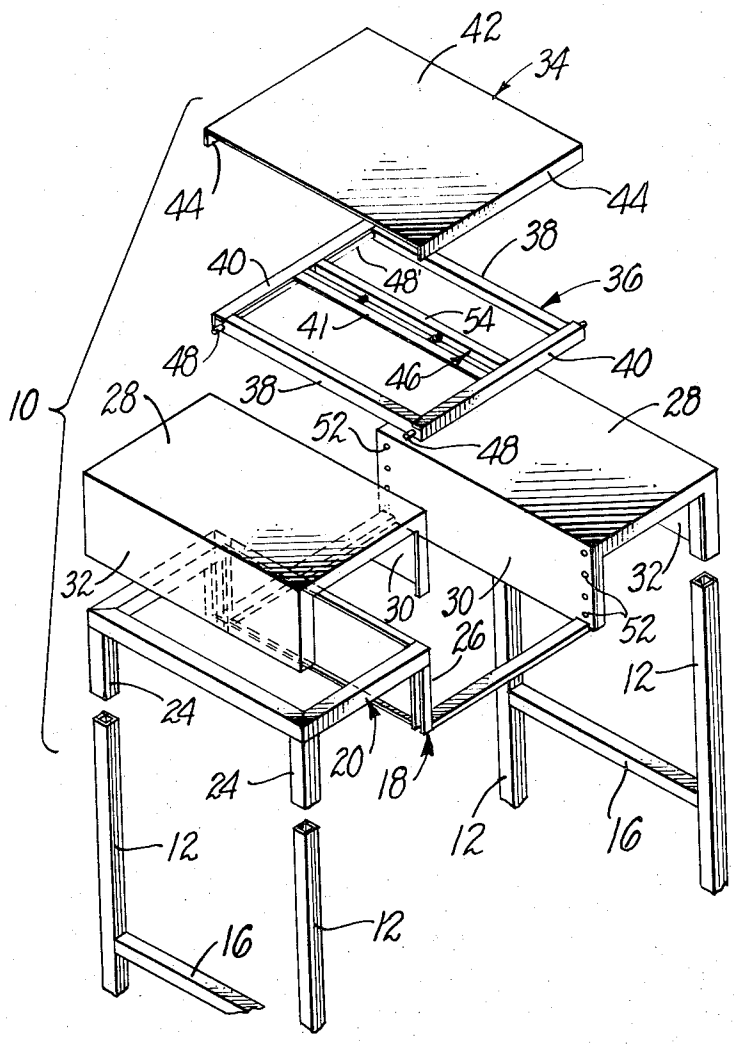


FIG. 1.

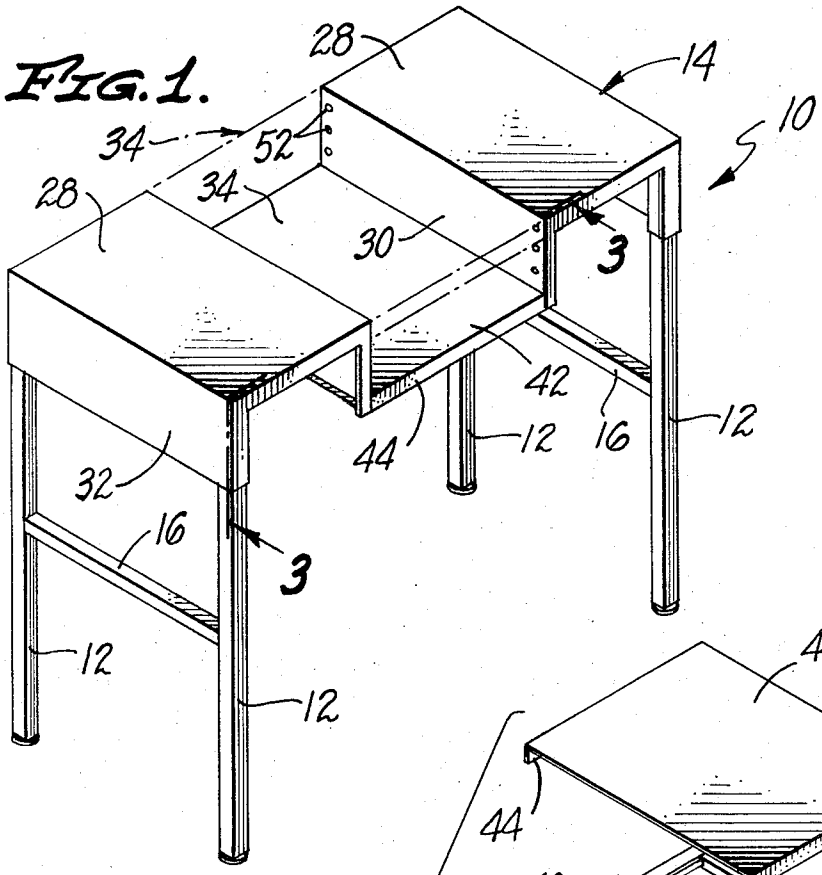

28
14
10
34
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FIG. 2.

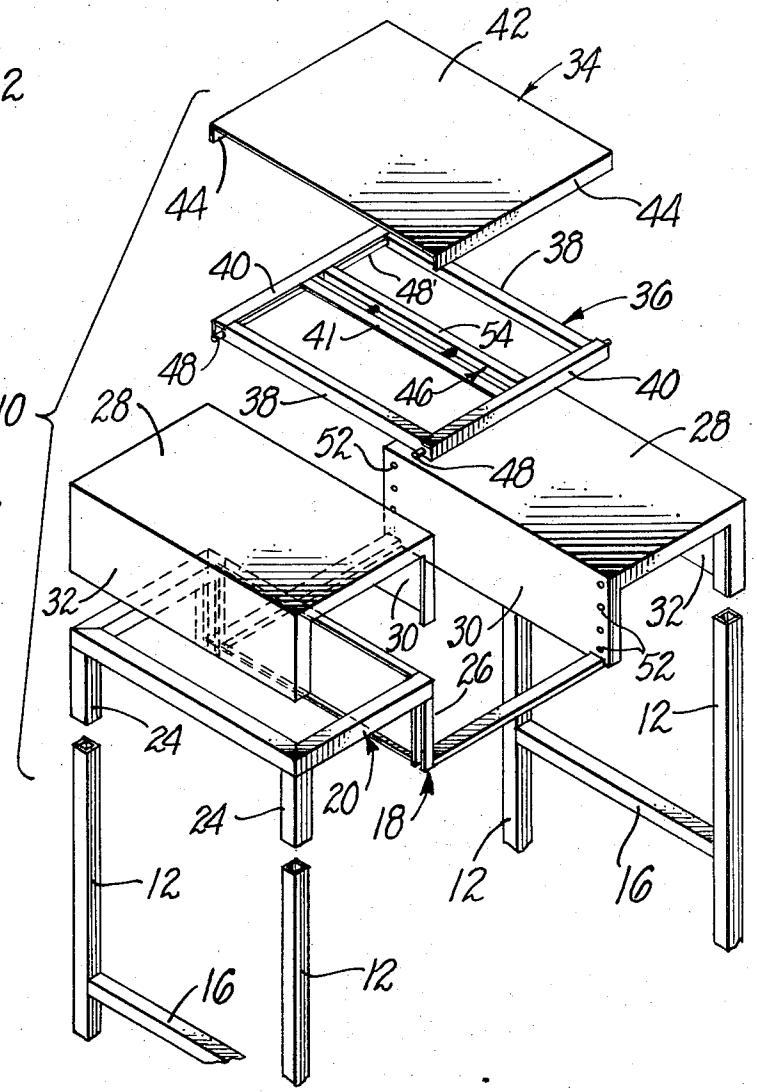

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48'
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FIG. 3.

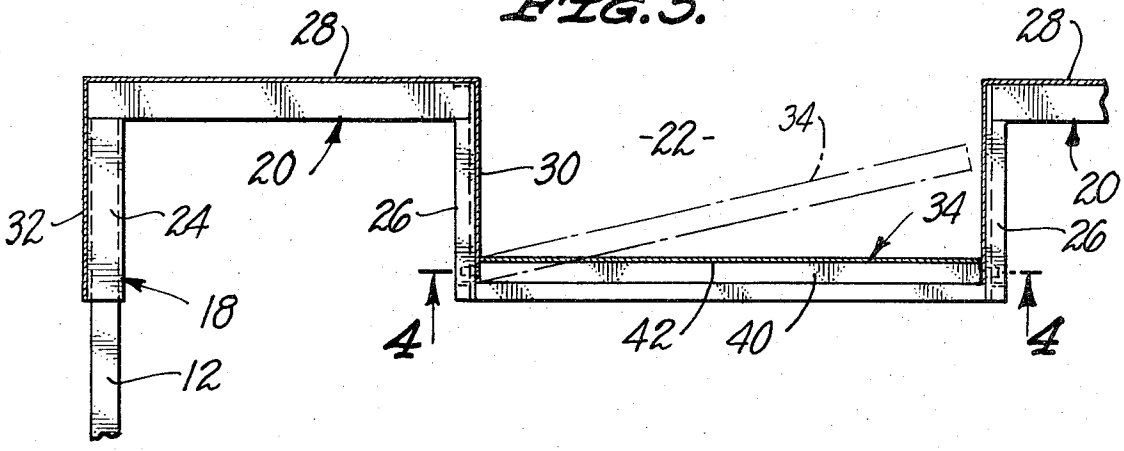
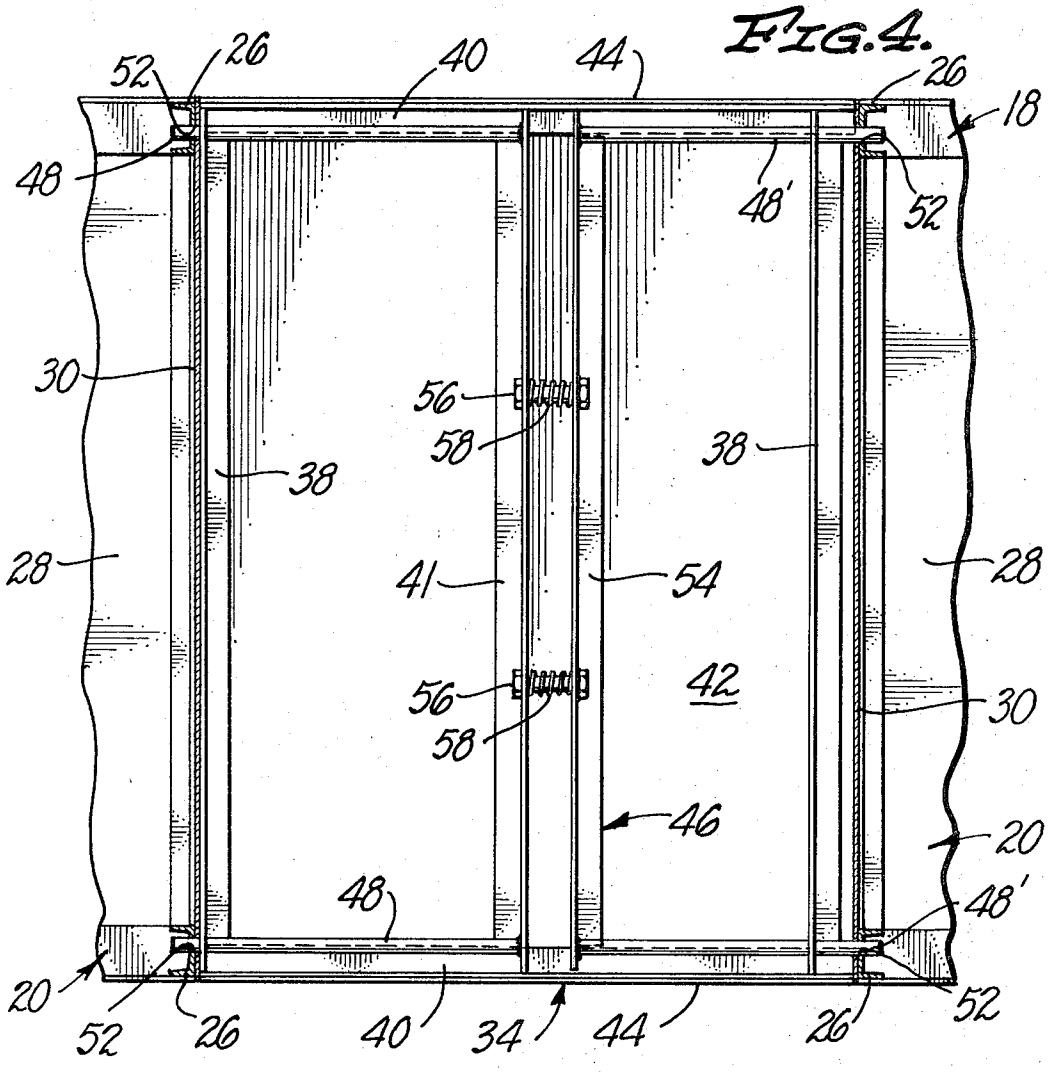

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FIG. 4.


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# TABLE

## BACKGROUND OF THE INVENTION

1. Field of the Invention

This invention relates generally to furniture and more particularly to a table with an adjustable top panel.

2. Discussion of the Prior Art

As will appear from the ensuing description, the table of the present invention is capable of a variety of uses and applications. However, the table is intended primarily for use by wheel chair patients and will be described in this connection.

Conventional tables are ill-suited for use by wheel chair patients for two reasons. First, such tables are too high for many wheel chair patients, particularly those who are young or short. Secondly, conventional tables are incapable of adjustment to the most convenient height for various patient activities, such as working, writing, typing, eating, and so on.

## SUMMARY OF THE INVENTION

The present invention provides a table which is particularly adapted for use by wheel chair patients and overcomes the above and other drawbacks of conventional tables for such use. The table has a table top made up of separate panels disposed edge to edge. One of these panels is vertically adjustable to vary its height above the floor. The table of the disclosed embodiment, for example, has two coplanar fixed panels located at opposite sides of the adjustable panel. The adjustable panel is vertically adjustable between an upper position, wherein the upper panel surfaces are located in a common plane to provide a smooth table surface, and a lower position below the fixed panels. Detent means are provided on the adjustable panel for releasably locking the panel in selected vertical positions.

In the disclosed embodiment of the invention, the adjustable top panel has a frame over which is removably positioned a tray which provides the upper panel surface. The detent means for locking the panel in adjusted position are mounted on this panel frame in such a way that removal of the tray exposes the detent means for manual retraction to release the panel for vertical adjustment.

The table is dimensioned in height to accommodate a wheel chair patient with his legs below the table top in every position of adjustment of the adjustable panel. The range of adjustment of this panel is such as to permit the panel to be located at the most convenient height for various patient activities, such as working, writing, typing, and so forth. However, while the table is designed for use primarily by a wheel chair patient, it will become evident as the description proceeds that the table is capable of other uses.

## BRIEF DESCRIPTION OF THE DRAWINGS

FIG. **1** is a perspective view of a table according to the invention;

FIG. **2** is an exploded perspective view of the table;

FIG. **3** is an enlarged section on line **3—3** in FIG. **1**; and

FIG. **4** is a further enlarged section on line **4—4** in FIG. **3.**



## DESCRIPTION OF THE PREFERRED EMBODIMENT

The table **10** of the invention which has been selected for illustration in the drawings has legs **12** and a table top **14** mounted on the legs. The legs at each end of the table are joined by a cross brace **16.** Table top **14** has a frame **18** constructed of frame members welded or otherwise rigidly joined to one another to provide a pair of platforms **20** separated by an intervening well **22.** End members **24** of the top frame **18** are boxed channels or tubular members of squared cross-section, which slidably receive the upper ends of the legs **12.** The legs may be retained in the frame channels by simple friction or suitable fastening means. The top frame **18** has vertical angle channels **26** along the sides of the frame well **22.** These channels will be referred to again shortly.

Top panels **28** and depending panels **30, 32** are secured or formed together to form unitary, shell-like assemblies adapted to be removably positioned on the top frame platforms **20.** The assemblies are readily removable and replaceable for ease of cleaning, storage, repair, etc. Top panels **28** are herein referred to as fixed top panels to distinguish them from an adjustable top panel hereinafter described. The assembly comprising panels **28, 30,** and **32** may be fabricated of any suitable sheet stock material, such as metal or plastic.

Within the top frame well **22** is a center panel **34** which is hereafter referred to as an adjustable top panel. This adjustable panel fits slidably between the well slide walls **30** and is vertically adjustable in the well between its broken line upper position and solid line lower position of FIG. **1.** The upper position of the panel is hereafter referred to in places as its normal position. In this normal position of the adjustable panel, the three panels **28, 34** are disposed edge to edge with their upper surfaces in a common plane to provide a smooth table surface. In its lower position, the adjustable panel **34** is located at the bottom of the well **22** and below the fixed panels **28.**

Referring to FIGS. **2** and **4,** the adjustable panel **34** has an open rectangular frame **36** including side frame members **38** and intervening frame members **40** welded or otherwise rigidly joined to one another. A central frame cross-member **41** is rigidly joined, as by welding, between members **40,** as shown. Frame members **38, 40** and **41** are angles or L-beams. As shown in FIG. **2,** a tray **42** is removably fitted over the frame **36** to provide the upper surface of the panel **34.** Tray **42** has depending flanges **44** which extend downwardly alongside the frame members **40** to position the tray edgewise relative to the frame.

Referring to FIGS. **3** and **4** the adjustable frame **36** has detent means **46** for releasably securing the panel in selected vertical positions in the top frame well **22** including its upper position shown in phantom outline in FIG. **1.** Detent means **46** comprises pins **48** which extend through holes **52** in the panel side frame members **38** and are extendable outwardly into openings **52** in the well side wall members **30** and top frame channels **26** to lock frame **36** in fixed vertical position. Outward extension of the pins is limited by the length of bolts **56,** as shown. The inner ends of the detent pins **48** at each side of the panel frame **36** are rigidly joined, as by welding, to cross-member **54,** the end portion of which are slidable on panel frame members **40.** Cross bars **41** and

54 are engaged by bolts 56 which are respectively surrounded by helical compression springs 58. These springs urge cross bar 54 from fixed cross-member 41, and thereby urge the detent pins 48 outwardly for engagement in the well sidewall openings 52 to lock frame 36 in fixed vertical position. The pins 48 are retracted to release the panel 36 for selective vertical adjustment by removing the panel tray 42 to expose the cross bars 41 and 54, and by manually squeezing these cross bars together to compress springs 58.

It is now clear that the center top panel 34 of the table 10 may be vertically adjusted between its upper normal position of FIG. 1, wherein the panels 28, 34 provide a smooth table surface, and a number of lower positions in the top frame well 22, wherein the panels provide a multi-level work surface. As noted earlier, the table is intended for use by wheel chair patients. To this end the table is dimensioned to receive the patient's legs below the top frame well, and to receive the wheel chair arms and wheels at opposite sides of the well. The center top panel 34 may be vertically adjusted to a number of different vertical positions which are convenient for various patient activities, such as typing, working, writing, eating, and so forth. It is obvious, of course, that the table may be used for other purposes.

What is claimed as new in support of Letters Patent is:

1. A table comprising:

supporting legs, and

a table top mounted on said legs having a central upwardly and forwardly opening well and including a pair of fixed coplanar panels located at opposite sides of said well and disposed at a fixed elevation relative to said legs and an adjustable panel within said well which is vertically adjustable through a range of positions including a normal position wherein the upper surfaces of said panels are located substantially in a common plane to form a table surface,

said adjustable panel comprising an open rectangular frame and a tray removably fitted over said frame, and

detent means carried by said frame including pins engageable in holes in the sides of said well for releasably securing said adjustable panel in said normal position and other selected positions of vertical adjustment in said well, and manually operable means below and exposed by removal of said tray for retracting said pins from said holes to release said frame for vertical adjustment to a selected position within said well.

2. A table according to claim 1 wherein:

there are two pins at each side of said frame, and said manually operable means comprise connecting bars joining the inner ends of the pins such that movement of said bars toward one another retracts said pins from said holes to release said frame for vertical adjustment, and springs acting between said cross bars for urging the latter apart and thereby urging said pins outwardly relative to said frame for engagement in said holes to lock said frame in position.

3. A table according to claim 2 wherein:

said tray has depending flanges engaging over edges of said frame to position said tray relative to the frame.

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