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OVER-BED TABLE
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OVER-BED TABLE

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1 Claim. (Cl. 311—39)

This invention relates to improvements in over-bed tables of that kind comprising legs which depend from opposite ends of the table top or top structure and are adapted to straddle a bed so that the top may be supported over the bed in proper position for use by an invalid or occupant of the bed. These over-bed tables are ordinarily provided with legs that are adjustable in length, and means for adjusting them, whereby the table top can be adjusted to a height or elevation best suited to the convenience of the occupant of the bed and to enable the table to be moved over an end frame of the bedstead to and from position for use.

One object of my invention is to provide a desirable and practical over-bed table of this sort which, in the main, is of wooden construction and involves the minimum use of metal parts. Other objects are to provide a wooden over-bed table which is of strong, rigid and durable construction, but nevertheless of desirable and pleasing appearance; and which has leg-adjusting mechanism of improved construction adapting the table top to be quickly and easily adjusted to different required elevations, with the minimum of effort.

Further objects and advantages of the invention will appear from the following specification of the preferred embodiment of the invention, shown in the accompanying drawings, and the novel features of the invention are set forth in the appended claim.

In said drawings:

Fig. 1 is a perspective view of an over-bed table embodying the invention.

Fig. 2 is a broken, longitudinal, sectional elevation thereof on the plane of line 2—2, Fig. 1.

Fig. 3 is a broken plan view thereof, the table top being omitted to show the construction of the top frame.

Fig. 4 is a transverse, sectional elevation of the table, partly broken away, to better show the adjusting mechanism of one of the legs.

Fig. 5 is a sectional plan view through one of the legs on line 5—5, Fig. 4.

The table comprises a top frame 10 on which the table top or top panel 14 is secured or supported, and legs 12 which depend from opposite ends of the top frame 10 and are disconnected below their upper portions to adapt the legs to straddle a bed with the top frame and top extending crosswise over the bed. Preferably, the top frame is of rectangular shape and constructed of opposite horizontal end bars 13 connected by parallel side bars 14 which may be rigidly attached to the end bars in any suitable or approved manner. As shown, corner braces 15 are provided in the four corners of the top frame, and these may be fastened by screws or otherwise to the end and side frame bars to thereby rigidly secure the bars together and firmly brace the frame against weaving or distortion from its intended rectangular shape. The table top 14 may be of any desired form and construction, whether in one or more sections, and may be secured on the top frame 10 in any suitable way.

Each of the legs or end supporting standards of the table comprises upper and lower sections which are slidably or telescopically connected to enable extension and shortening of the leg. The lower section of the leg consists of an upright post or member 16, preferably formed by a relatively thick wooden board which rises from a wooden cross base or foot piece 17 to which it is rigidly attached in any suitable manner. The other or upper leg section is preferably formed by two spaced wooden side bars or pieces 18 which are rigidly attached at their upper ends, in any suitable manner to and depend vertically from the adjacent end piece 13 of the top frame, and outer and inner panels or thin face boards 19 and 20 which are rigidly fastened by screws or otherwise, to and connect the spaced bars 18 at their opposite faces, the bars 18 and panels 19 and 20 thus forming a hollow, box-like, upper leg section in which the board 16 of the lower section is confined, laterally and vertically slideable. Preferably, a tongue and groove slideable connection is provided between the board 16 of the lower section and the side bars 18 of the upper section, as for instance, by tongues 21 on the edges of the board 16 slidable fitting in grooves in the inner edges of the side bars 18. The face boards 19, 20, as shown, form raised panels on the inner and outer sides of the upper leg sections between their opposite edges, and thus give the legs a pleasing or attractive appearance.

The mechanism for lengthening or shortening the legs for adjusting the height of the table top comprises vertical screw shafts 22, one housed and concealed in each leg with the upper end portion of the shaft journaled or arranged to turn in and be held from endwise movement in a bore 23 in the adjacent end cross bar 13 of the top frame, and a nut 24 which is screwed or contained in a socket in the post 16 of the lower leg section, and in the threaded hole of which nut the screw shaft is adapted to turn. By turning the screw shafts in one direction or the other, the legs are extended or shortened. Preferably, the screw nut
24 is of cylindrical form and confined in a cylindrical socket 25 bored horizontally in the post 16 of the lower leg section. The nut fits loosely in its socket 25 so as to be free to rock slightly in the socket about the axis of the cylindrical nut and socket and also to shift slightly horizontally or lengthwise of said axis. In other words, the nut is sufficiently loose in the socket to have slight play therein, both radially and axially of the cylindrical nut. The nut is thus adapted to automatically accommodate itself to the screw shaft so that the shaft will work freely in the nut without binding, regardless of possible inaccuracies of construction. The adjusting screws therefore will work easily and freely notwithstanding that some discrepancies in the size, position or alignment of the parts of the table or the adjusting mechanism might occur in the manufacture of the table. As shown, the post of the lower leg section is provided in its upper portion above the nut socket 25 with a vertical bore 29 and below the socket 25 with a vertical channel or "bore 27 for the reception of the screw shaft.

The screw shafts 22 of the two legs may be simultaneously turned for correspondingly adjusting the two legs by any suitable means. For instance, a horizontal operating shaft 28 extends lengthwise through the top frame 18 and is provided at one end with a crank or handle 29 for turning it and with bevelled pinions 30, one of which meshes with a bevel-pinion 31 on the upper end of each screw shaft 22. As shown, the operating shaft 28 passes through and is journaled in bearing holes in blocks 32 secured to the inner side of the end bars of the top frame. The handle end of the shaft 28 also passes out through a hole in a cover-piece 33 secured to the outer side of the adjacent end bar 13, while the other end of the shaft 28 and the adjacent bevel pinion 30 thereon are seated and adapted to turn in a cylindrical cavity in a cover-piece 34 which is suitably secured on the outer side of the adjacent frame end piece 13. These pieces 33 and 34 cover and hide the openings or cavities 35 in the end bars 13 in which the bevel pinions 30 and 31 are housed. 36 indicates a stop pin or stud which is fixed in the inner side of the post 16 of the lower section of one of the legs and extends into an elongated vertical slot 37 in the inner panel of the upper section of the leg. This stud, by engagement with the upper and lower ends of the slot is adapted to limit the up and down adjustments of the table top. Both legs may be provided with such stop means, if desired.

By the described construction, the table may be of wooden construction throughout, with the exception of the adjusting mechanism for the legs, and such screws or fastening devices as may be employed to fasten together the wood parts of the table legs and top structure. This is a desideratum at the present time when it is difficult or impossible to obtain metal because of war priorities. Nevertheless, the table is of desirable and practical construction, is strong and rigid, and is of attractive appearance, particularly with regard to the legs, in which the leg-adjusting mechanism is wholly housed and concealed. Each leg is of sturdy but pleasing appearance, due largely to the panelled effect produced by the described formation of the upper leg sections. Furthermore, by the described construction of the leg-adjusting mechanism, the mechanism can be freely operated to adjust the height of the table, notwithstanding the wooden construction thereof and possible inaccuracies or discrepancies, due to manufacture, in the size, position or alignment of the parts, which otherwise might cause the parts of the adjusting mechanism to bind so as to prevent free and easy operation thereof.

I claim as my invention:

2. An over-bed table comprising legs which are arranged to straddle a bed to support the table top over the bed and have slidably connected sections which are relatively adjustable vertically for adjusting the height of the table top, and adjusting mechanism for the movable section of each leg comprising a nut connected to one section of the leg, and a substantially vertical screw shaft journaled and held from endwise movement in the other section of the leg and having a screw threaded engagement with said nut; the improved construction in which said nut is of external cylindrical shape with the axis of the cylinder substantially horizontal and is loosely confined in a concentric cylindrical socket in one leg section but has limited free play in said socket both to rock about said substantially horizontal axis and also shift in the direction of said axis to prevent binding between the nut and screw-shaft.

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