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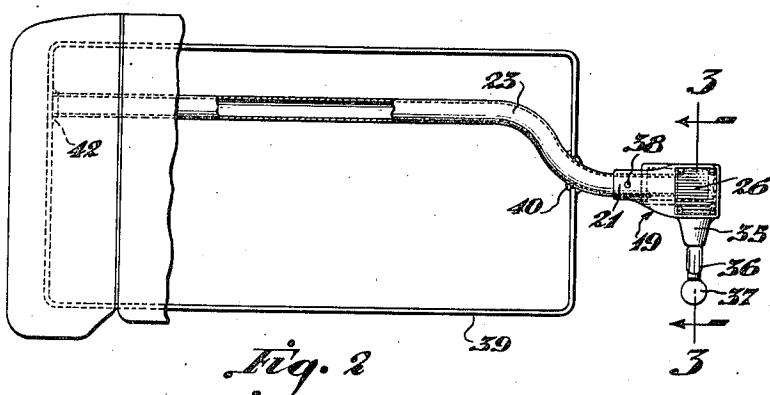
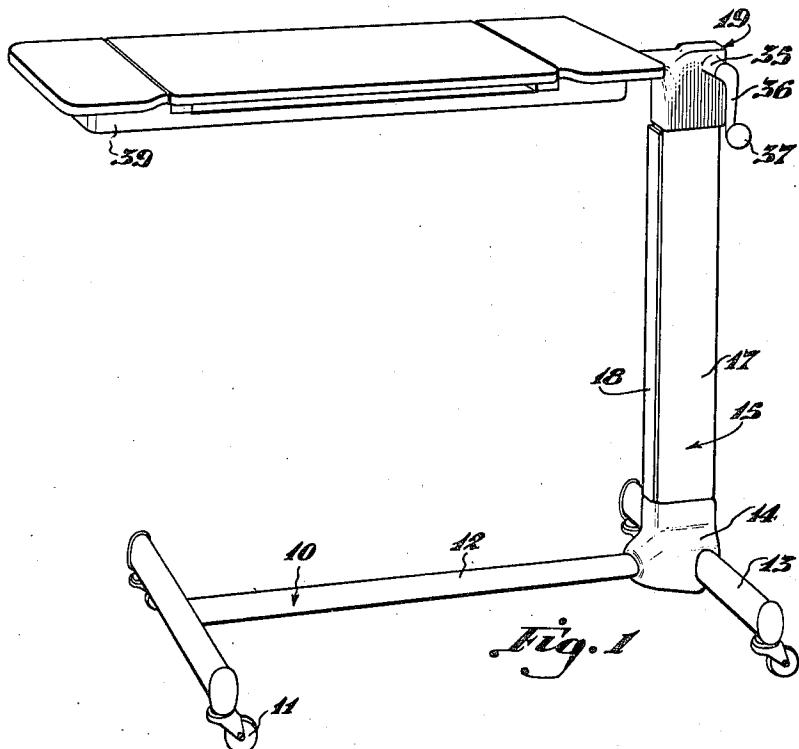
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2,329,902

MOUNTING FOR LATERALLY EXTENDED TABLE TOPS

Filed Oct. 31, 1941

2 Sheets-Sheet 1



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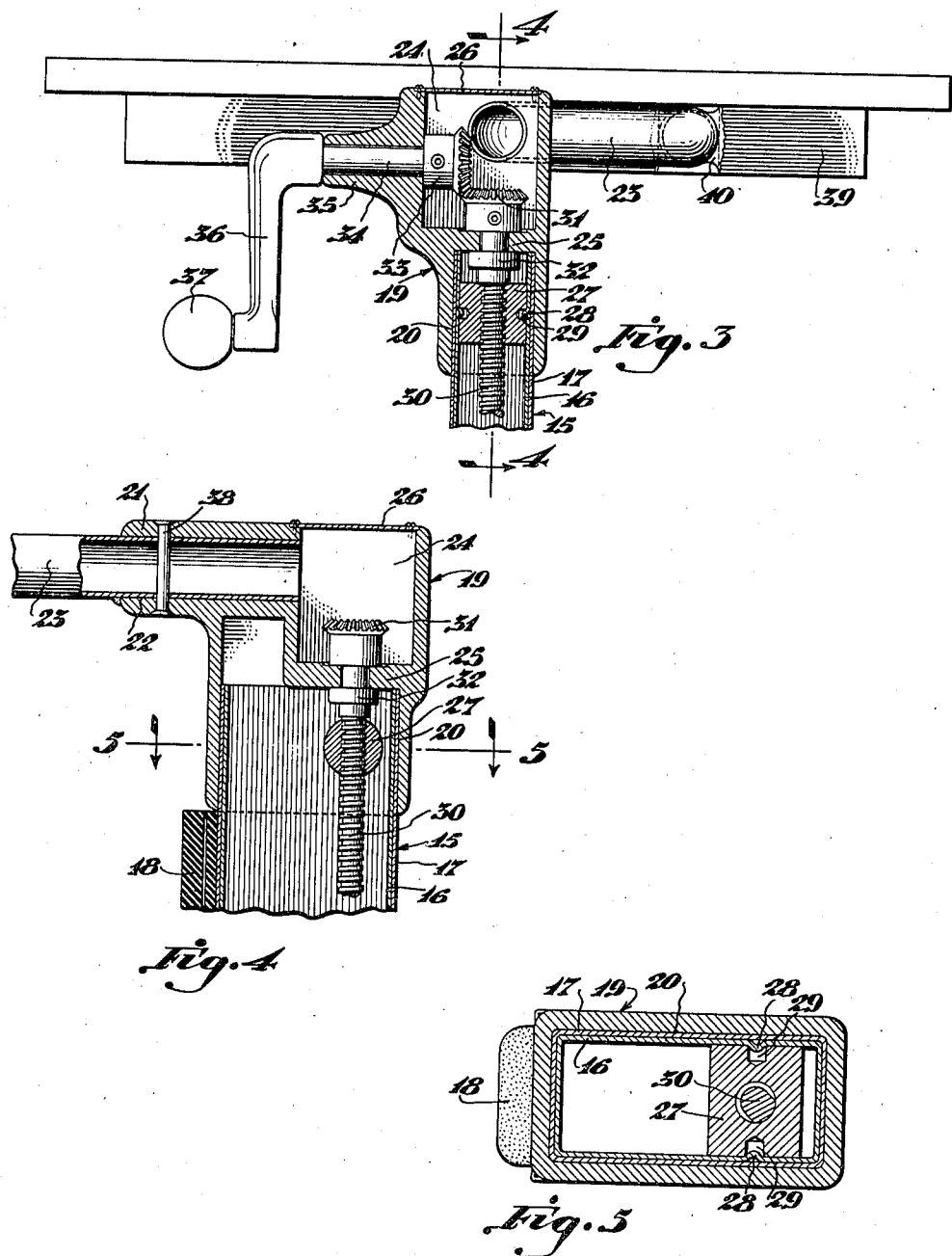
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MOUNTING FOR LATERALLY EXTENDED TABLE TOPS

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UNITED STATES PATENT OFFICE

2,329,902.

MOUNTING FOR LATERALLY EXTENDED
TABLE TOPSWilliam A. Hillenbrand, Batesville, Ind., assignor
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Application October 31, 1941, Serial No. 417,233

6 Claims. (Cl. 311—36)

This invention relates to improvements in table construction and is particularly directed to the improvement of the supporting means for the top of an overbed table. Overbed tables of various types have been provided heretofore. The type concerned here utilizes a single pedestal rising from the base and adapted through the improved structure of this invention to support the laterally extended table top. When placed in the environment of a hospital bed, the table top therefore extends out over the bed where it is disposed conveniently before the occupant of the bed.

In the manufacture of this type of table, it is quite obvious that a great deal of difficulty has been encountered in the provision of a top supporting structure which will adequately support the weight of the table top and any articles placed upon it. In order to reach out over the bed, the amount of top extension required is considerable, and accordingly, there is a great deal of leverage effective through the top for displacing the table from its true horizontal position. The support connection to the pedestal or standard must be substantial so that this leverage and the twisting strains do not break it down.

Furthermore, the structure must embody means for raising and lowering the table top supporting means so as to change the elevation of the table relative to the bed or to adjust it to the height of the bed for the convenience of the occupant.

Accordingly, it has been an object of the present inventor to provide an improved overbed top supporting structure which is extremely rigid and capable of resisting fully the average strains imposed upon the table and to provide improvements in the construction of the bracket attaching the top supporting arm to the top of the pedestal or post and in the construction of the supporting means extending beneath the top. Also, the improvements relate to the relationship of these elements; that is, the post, the bracket, and the arm, in the formation of a unitary and adequate supporting means for the top structure.

It has been a further object to provide a bracket for this purpose which is rigidly attached to the top of the upper section of the telescoping post, which bracket includes a compact means within its unitary structure for raising and lowering the top relative to the base and the lower section of the telescoping post structure.

Other objects and certain advantages of the invention will be more fully apparent from the description of the drawings in which:

Figure 1 is a perspective view of an overbed table of the single post or pedestal type embodying the improved top supporting means of this invention.

5 Figure 2 is a top plan view of the structure with certain parts broken away for more fully illustrating the top supporting means.

Figure 3 is a sectional view taken on line 3—3, Figure 2, detailing the structure of the bracket and showing the details of the operating means for raising and lowering the top supporting structure relative to the post.

10 Figure 4 is a sectional view taken on line 4—4, Figure 3; further detailing the structure of the bracket and the elevating means.

Figure 5 is a sectional view taken on line 5—5, Figure 4, detailing the arrangement of the elevating screw and nut relative to the post structure.

15 As stated, it has been conventional in the past to provide a table incorporating a top structure extending over the bed and supported only at one end. This type of table includes a single pedestal or post rising from a base structure and providing means for mounting the top relative to the base and the lower section of the post. Apart from the general showing in the drawings and the general description, the specification in this application will be directed to a detailed description of the exact details of the top supporting means attached to the upper section of the post and extending outwardly therefrom.

20 Referring to the drawings, a base 10 is provided, which base is of more or less broadened H form including appropriate casters 11. At the intersection of the central member 12 of the base and one of the end members 13, the base bracket 14 is incorporated. The standard or post generally indicated at 15 rises from this bracket 14 and includes a lower or inner section 16 and an upper or outer section 17, the former telescoping within the latter. These post sections are rectangular. A rubber bumper 18 extends vertically along the inner face of the upper section for the purpose of preventing scuffing of the bed or the table structure.

25 A top supporting bracket 19 is fixed to the upper end of the upper tubular section 17. This bracket 19 includes a socket 20 engaged over the top of the upper tubular section 17. Further, it includes a lateral extension 21 including a socket 22 mounting one end of a top supporting arm 23 consisting of a length of pipe.

30 Further, the bracket includes a chamber 24 at the inner end of the socket 22 and above the

closed upper end 25 of the socket 20. This chamber constitutes a housing for the elevating gearing and is covered by means of a cover plate 26.

A fixed nut 27 is mounted within the upper end of the lower post section. Described in detail, this nut is constituted from a short length of round stock having its axis disposed crosswise horizontally relative to the post section. It is held in place by means of indented portions 28 of the post section engaged in short axial sockets 29-23 in the respective ends of the nut. Thus, the nut is free to rotate slightly if necessary as for example, when the sections are fully extended and there may be a slight disalignment.

An elevating screw 30 traverses the nut and is approximately of the same length as a post section. It is suspended from its upper end on the shoulder afforded by the hub of a bevel gear 31 pinned to the upper end of the screw and resting upon the bottom of the chamber 24. A shoulder 32 on the screw engages the underside of the bottom wall of the chamber and thus, the elevating screw is maintained against axial displacement relative to the bracket and the upper post section.

The bevel gear 31 meshes with a bevel gear 33 pinned to the inner end of an operating shaft 34 extending into the chamber 24 from the front of the bracket. The bracket includes a boss 35 mounting the shaft 34. A crank handle 36 is fixed to the outer end of the shaft and includes a ball type manipulating knob 37. Thus, rotation of the crank rotates the screw within the nut and moves the upper section telescopically relative to the lower section.

The arm 23 is welded within the socket 22 and is further held therein by means of a cross pin 38. The supporting frame mounted on the arm consists of a length of flat bar material 39 (Figure 2) bent into rectangular form. The strip of material 39 is disposed on edge; that is, it is disposed with its upper edge presenting a horizontally disposed supporting surface. The adjacent ends of this strip of material 39 are welded to opposite sides of the tubing, constituting the arm, as at 40. The outer end of the arm is welded to the inner face of the end portion of the rectangular support as at 42. Top structure may be secured to this supporting frame by any means, such as clips. As shown, the arm is bent laterally or is offset from the center of the frame so as to provide clearance for certain top elements not constituting a part of this invention.

Through the use of a unitary bracket element having the post section and the arm socketed therein, a very rigid type of support for a rather lengthy laterally extended arm 23 is provided. Stability and strength are further contributed through the arrangement of the post section with its long dimension disposed parallel with the arm, the wide sides of the rectangular post being effective for withstanding leverages applied to the arm. Moreover, the elevating mechanism is compactly arranged within the bracket and in no way interferes with the mounting of the bracket on the post in the attachment of the arm to the bracket.

Having described my invention, I claim:

1. A support bracket for mounting a table top laterally from a supporting post, comprising a single element incorporating a vertical socket adapted to fit over the top of the post, a lateral socket adapted to receive a horizontally disposed top supporting arm, and a chamber above the vertical socket for receiving mechanism for elevating the bracket relative to the post supporting it.
2. Means for supporting a table top at the upper end of a post, comprising a bracket including a socket in its underside engaged over the upper end of the post, said bracket further including a socket extending laterally therefrom, a supporting arm extending horizontally from said lateral socket, and a rectangularly bent metallic band secured to the arm and constituting a frame providing a horizontally disposed supporting surface for the table top.
3. Means for supporting a table top at the upper end of a post, comprising a one-piece bracket including a socket in its underside engaged over the upper end of the post, said bracket further including a socket extending laterally therefrom, and a supporting arm extending horizontally from said lateral socket, said arm including means for supporting a table top.
4. In a table construction of the type including a base and a post at one end of the base, said post consisting of telescoping tubular sections; a bracket attached to the upper section including a socket engaged over the upper end of the upper section, means extending laterally from the bracket for supporting a table top, said bracket being of one piece and including a chamber located over the post, an elevating screw suspended from the bracket into the post, a nut fixed in the upper end of the lower post section and traversed by the screw, a bevel gear on the upper end of the screw within the chamber, a second bevel gear meshing with the first, a horizontally disposed shaft within the bracket axially supporting said second bevel gear, and a crank on the outer end of the shaft for rotating the gears and raising and lowering the upper post section through said screw and nut.
5. In a table construction, a post consisting of telescoping tubular sections, a bracket attached to the upper section, means extending laterally from the bracket for supporting a table top, said bracket including a chamber located over the post, an elevating screw suspended from the bracket into the post, a nut fixed in the upper end of the lower post section and traversed by the screw, gearing within said chamber for rotating said screw, and means for rotating the gears and raising and lowering the upper post section through said screw and nut.
6. A support bracket for mounting a laterally extended table top, comprising a supporting post of rectangular tubular form, an element incorporating a vertical socket adapted to fit over the top of the post and a socket extended laterally in a direction parallel with the wide sides of the post, and adapted to receive a top supporting horizontally disposed arm.

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