United States Patent

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[54] **TRACTION TABLE**
5 Claims, 5 Drawing Figs.

[52] **U.S. Cl.** **128/71**
[51] **Int. Cl.** **A61f 5/00**
[50] **Field of Search** 128/24, 70, 71, 75; 272/58

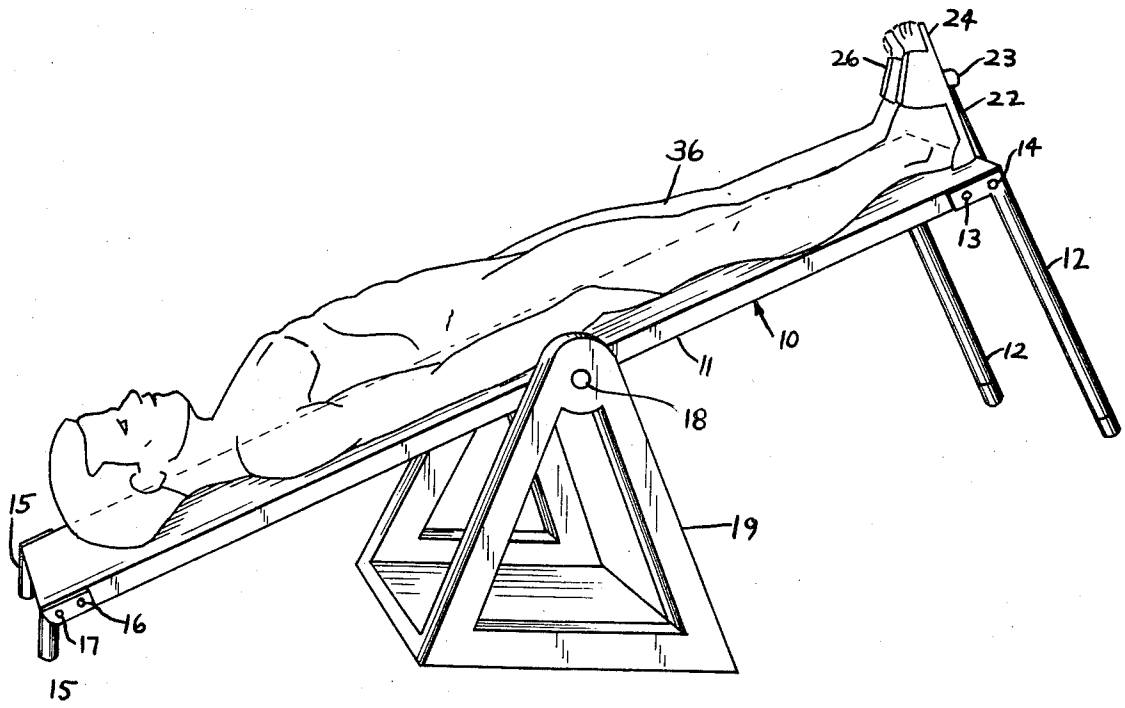
[56] **References Cited**

UNITED STATES PATENTS

2,983,930	5/1961	Porritt	128/70X
3,081,085	3/1963	Girolamo	128/24UX

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ABSTRACT: The traction table having a stand and a tablelike top with legs on each end. The legs on one end are about the same length as the height of the stand so that when the table top is horizontal, it rests on the two long legs. In this position, a person can sit on the table top between the stand and the long legs. When the person attaches the foot holders to his feet and reclines on the table, the table top will overbalance and move to an inclined position, resting on its short legs. In this position the person's head will be over the short table legs, and his weight will be inclined to slide his body over the table top toward the head and a tension or traction will thereby be exerted on his body by the foot holders. If the person's head is attached to the traction holder, a maximum tension will be exerted on his neck. If his body is attached to the table at the belt line, a maximum tension will be exerted on the sacroiliac. Prior traction devices depend on weights, winches and other force delivering devices to exert traction on the body.



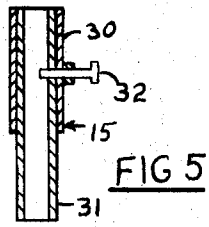


FIG 5

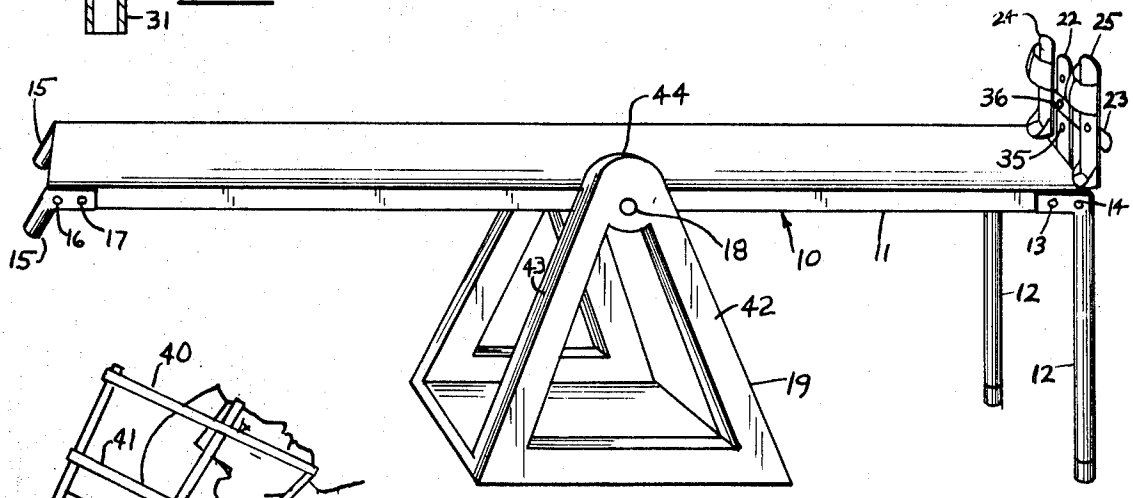


FIG. 1

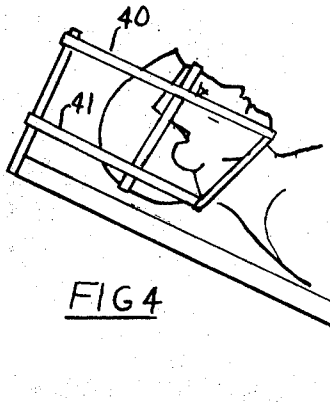


FIG 4

FIG. 2

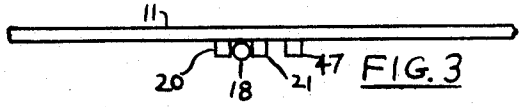


FIG. 3

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TRACTION TABLE

It is, accordingly, an object of the invention to provide an improved traction table.

Another object of the invention is to provide a traction table that is simple in construction, economical to manufacture, and simple and efficient to use.

Another object of the invention is to provide a traction table made up of a simple stand with a table top pivotally supported on the stand, short legs on one end of the table top and long legs on the other end.

Another object of the invention is to provide an improved traction table.

With the above and other objects in view, the present invention consists of the combination and arrangement of parts hereinafter more fully described, illustrated in the accompanying drawing and more particularly pointed out in the appended claims, it being understood that changes may be made in the form, size, proportions, and minor details of construction without departing from the spirit or sacrificing any of the advantages of the invention.

In the drawings:

FIG. 1 is an isometric view of the traction table according to the invention.

FIG. 2 is a view of the traction table showing a person supported on it with the table inclined to a position to exert traction on the body of the person.

FIG. 3 is a side view of the table top.

FIG. 4 is a view showing the traction table with a head holder supported on it.

FIG. 5 is a longitudinal cross-sectional view of the short legs shown in FIGS. 1 and 2.

Now with more particular reference to the drawing, the traction device is indicated generally at 10 and it has a table top board 11 which has a generally planar top surface and has first long legs 12 attached to one end by means of fasteners 13 and 14. These fasteners could be formed in such manner that the legs could fold parallel to the table. It has short legs 15 attached to the top 11 by fasteners 16 and 17. Fasteners 13 and 14, 16 and 17 may be attached in such a way that the legs are swingable on the table top 11 so that the legs may be folded generally parallel to the table top. This type of structure will be readily apparent to those skilled in the art. The legs 15 may be made of telescoping tubes with a spring loaded pin to hold them in adjusted, fixed position in a manner well known to those skilled in the art. This structure is shown particularly in FIG. 5 wherein the legs 15 are made up of the tube portion 30 which is fastened to the table top 11 and the portion 31 that is telescopically received inside the portion 30 and slides therein. The pin 32 is urged into an opening 33 in the leg member 31 and the leg member 31 may have a plurality of spaced openings so that the end of the legs may be adjusted to increase or decrease the overall length of the leg in a manner well known to those skilled in the art.

The support stand 19 may be made in a number of ways; for example, it may be made of metal tubing, but it is shown fabricated of sheet material such as plywood indicated at 19 and an axle 18 is received in openings in the upper ends of the legs of the stand. This axle extends under the table top and is received between the cleats 20 and 21. Cleats 20 and 21 are fixed to the bottom of the table top 11 and they are spaced in such a position that the axle or crossbar may be selectively received between them. A vertical bar 22 is fixed to one end of the table and it has spaced openings 35 into which a bolt 36 may be inserted which may be attached through the horizontal holder 23. The horizontal holder 23 has the foot holders 24 and 25 fixed to it. Each of these foot holders has a toe strap 26 that will pass over the feet of the person resting on the table as indicated at 36.

In FIG. 4, the table top 11 is shown with the vertical bar 22 having the head straps 40 and 41 on it. The head straps may pass around the chin of the person in any suitable manner so that the head of the person may be placed where the feet are shown in the embodiment of FIG. 2 and, thus, the straps 40 and 41 will exert a traction on the neck of the person.

For use on the spinal column, a suitable belt may be attached to the pateint's waist. This belt to be attached to the unit by means of straps which are fastened to the crossbar 23 so that traction may be exerted.

It will be noted from the disclosure that the traction table is of a very simple construction wherein the weight of the body is acted on by gravity which supplies the necessary traction on the body of the patient. This table has vast advantages over many of the apparatuses employing the use of weights commonly used in hospitals.

The traction table shown has application in hospitals as well as in the home. It can be assembled for use and dismantled for storage in a very short time.

The traction device consists of a smoothly finished table top with cleats 20 and 21 on it as shown on the underside to permit location of the horizontal bar in a number of spaces which can receive the axle 18 in selected positions. A suitable compression spring may be used to attach the cross member 23 to the vertical member 22 to absorb the shock which might result if the person tilted the table too rapidly.

It will also be noted that the device may be used to exert a traction on the head of a person, on the feet or on the sacrioliac. The fittings are attached in a manner to permit movement of the feet in a circular fashion. In use, the top is set on the trunnion bar using the cleats on the underside of the table top so it will be located at the center of the hips of the person using it. The adjustable leg is then set to give the angle tilt desired for the traction pull needed. The user then sits on the top towards the end with the fittings, swings the body around at right angles and inserts his feet into the foot holders. Then he leans back and the table automatically tilts to the preset position and the user's weight provides traction on his body from the ankles to the head. To return the top to a horizontal position, the balance of the table is such that the patient may grasp the side of the trunnion pull slightly. This will cause the top to tilt back to a horizontal position.

The foregoing specification sets forth the invention in its preferred practical forms but the structure shown is capable of modification within a range of equivalents without departing from the invention which is to be understood is broadly novel as is commensurate with the appended claims.

I claim:

1. A traction table comprising:
   - a planar member adapted to support the body of a person;
   - a pedestal;
   - pivot means adjacent the center of said planar member rotatably supporting said planar member on said pedestal;
   - first legs attached to said planar member adjacent one end thereof engaging a floor when said planar member is in substantially horizontally position;
   - second legs on the end of said planar member opposite said first legs;
   - said second legs being shorter than said first legs and adapted to engage said floor when said planar member is disposed in inclined position at an acute angle to said floor; and
   - means to attach a part of the body of a person to said planar member adjacent said first legs whereby traction is exerted on said person's body when in inclined position.

2. The table recited in claim 1 wherein said means to attach the body of a person comprises foot attaching means.

3. The table recited in claim 1 wherein said means to attach to the body of a person to said table comprises a device adapted to be attached to the head of a person.

4. The table recited in claim 1 wherein said pivot means comprises an axle extending laterally of said table top and longitudinally spaced cleats attached to the underside of said table top and adapted to receive said axle therebetween.

5. The table recited in claim 1 wherein said means to attach a part of the body of a person comprises a bar extending generally vertically from said table top:
   - a cross bar pivotally attached to said vertical bar; and
   - said cross bar extending generally parallel to said table top.