Dec. 20, 1960 G. J. GRINSELL 2,965,425

PORTABLE CHIROPRACTIC TABLE

Filed Feb. 11, 1959 3 Sheets-Sheet 1

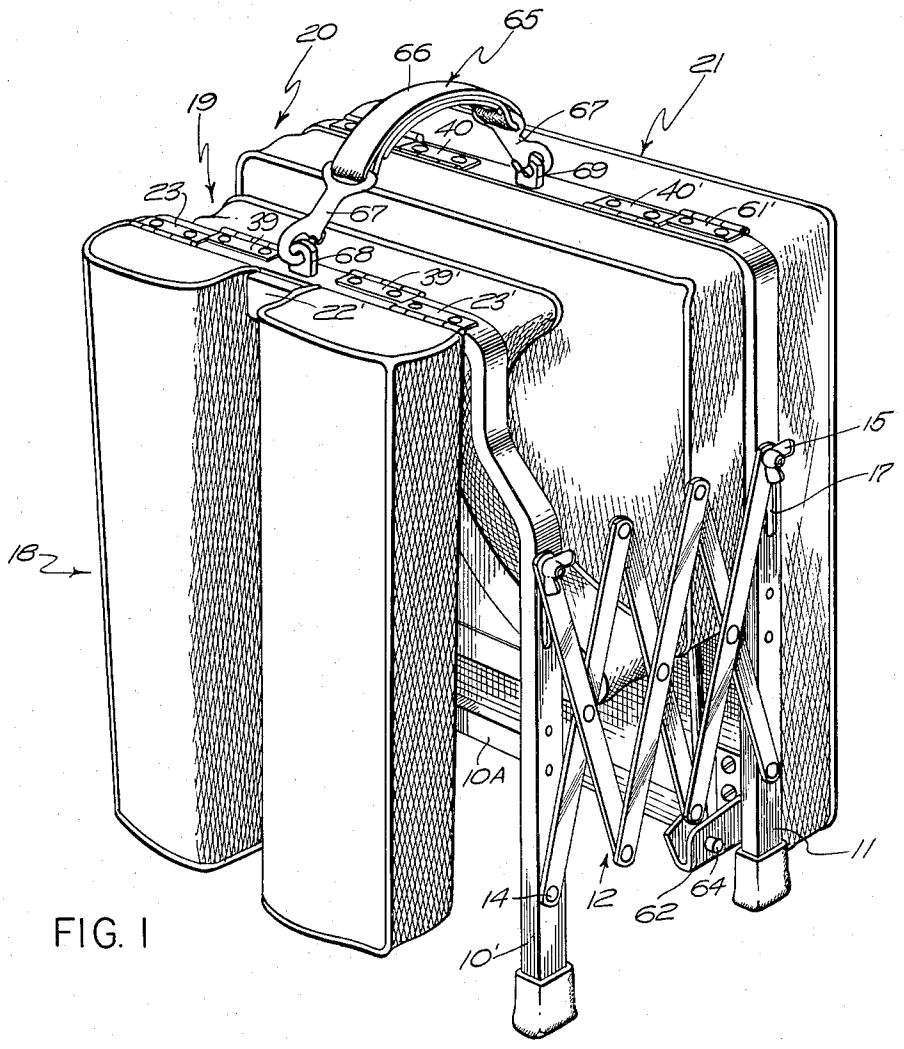


FIG. 1

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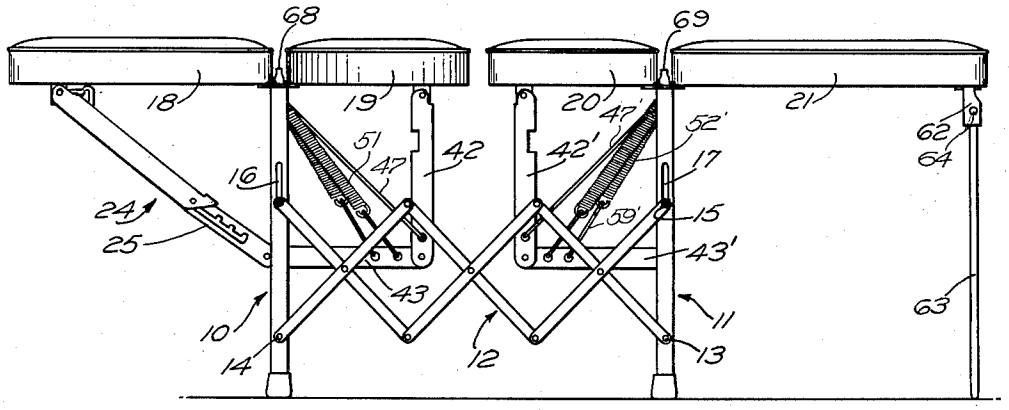


FIG. 2

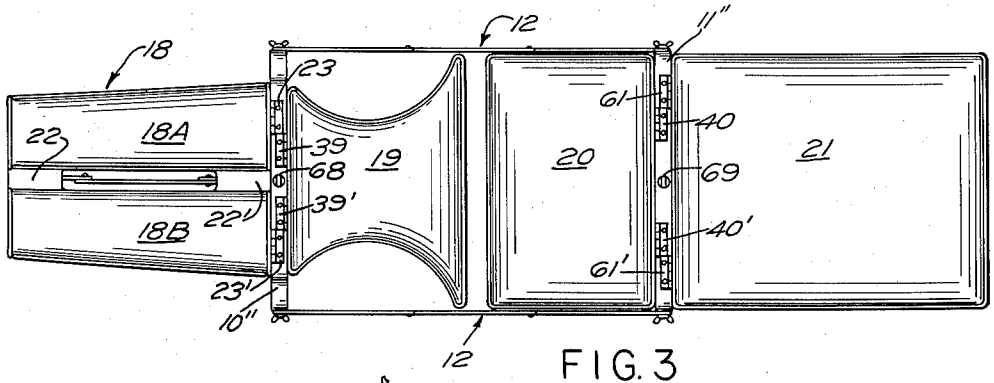


FIG. 3

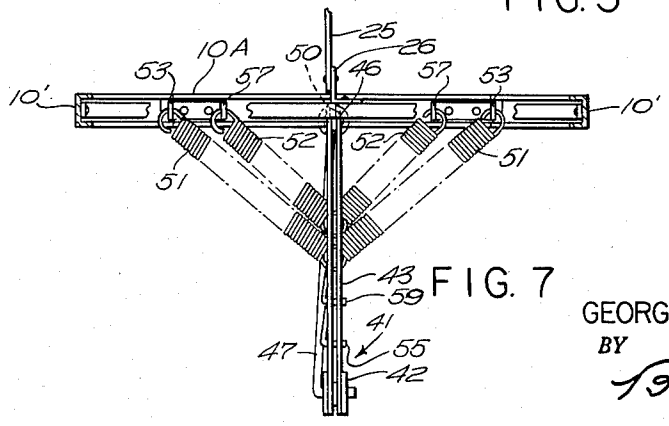


FIG. 7

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Filed Feb. 11, 1959 3 Sheets-Sheet 3

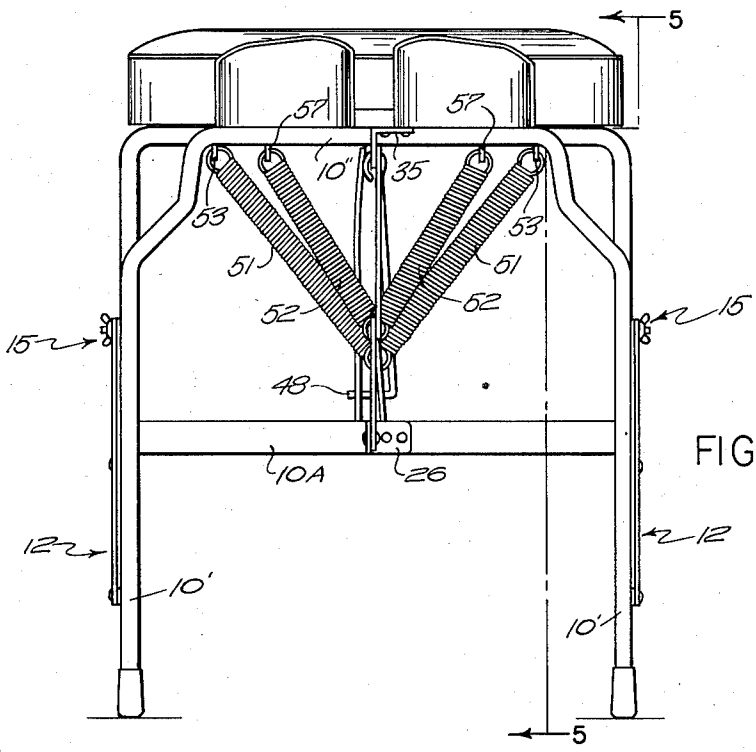


FIG. 4

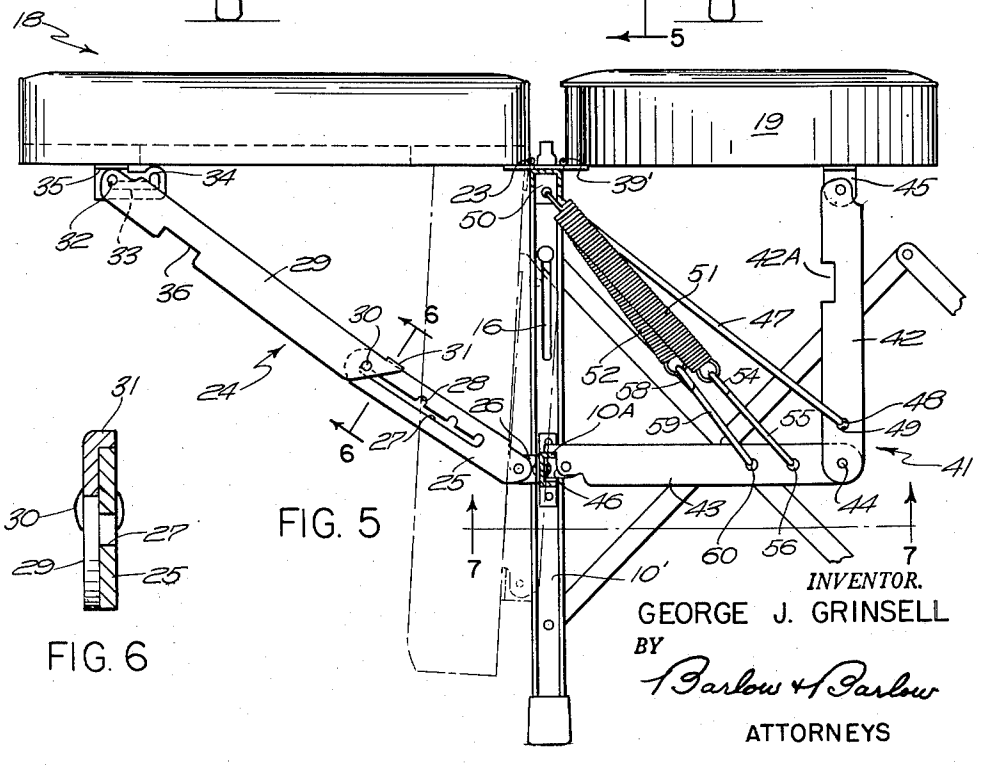


FIG. 5

FIG. 6

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PORTABLE CHIROPRACTIC TABLE

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5 Claims. (Cl. 311—7)

This invention relates to a portable table to be used by chiropractors in making spinal adjustments.

Frequently, chiropractors are called upon to make spinal adjustments at the patient's home, since the patient may be immobile for one reason or another. The tables which are generally in use are rather bulky in nature and are designed specifically for a permanent installation in the physician's office. It is therefore desirable that a table of a portable nature be available which may be readily transported to the patient's home and be readily erected alongside the bed of the patient so that the patient may be easily moved onto the table.

It is accordingly an object of the invention to provide a chiropractic table which will be portable and be readily carried by one person.

A further object of the invention is to provide a chiropractic table which will enable the cushions thereof to fold and thereby permit longitudinal collapsing of the table.

A still further object of the invention is to provide a portable chiropractic table which will be light in weight and which will retain the basic pad adjustments found on larger tables.

A still further object of the invention is to provide a simple means for adjusting the cushions to accommodate various patient weights.

With these and other objects in view, the invention consists of certain novel features of construction as will be more fully described and more particularly pointed out in the appended claims.

In the accompanying drawings:

Figure 1 is a perspective view of a portable chiropractic operating table in the folded position ready for carrying, a carrying strap being attached thereto;

Figure 2 is a side elevational view of the chiropractic table of the invention in the fully extended position with all parts in the position ready for use;

Figure 3 is a top view of the table in the same position as in Fig. 2;

Figure 4 is an end view of the table in operating position taken from the lefthand end of Figure 2 with certain parts omitted for clarity and drawn to an enlarged scale;

Figure 5 is a sectional view taken on lines 5—5 of Figure 4;

Figure 6 is a sectional view taken on lines 6—6 of Figure 5; and

Figure 7 is a sectional view taken on lines 7—7 of Figure 5.

Referring now to the accompanying drawings, there is shown a portable chiropractic table having two leg members 10 and 11 which are joined together by extendable frames or pivoting X frames 12, there being two such frames at either side of the vertical extent of the leg frames 10 and 11. Basically each of the leg members 10 and 11 comprise channel material which has been formed into generally an inverted U outline shape so as to define two upstanding vertical portions 10' and 11' respectively with upper horizontal members 10'' and 11''.

The scissor or X frame 12 is made up by a plurality of generally flat bars which are pivoted to each other at the ends thereof and also at the central portion. Each frame has one free end thereof pivotally attached to the vertical leg pieces 10' and 11' as at 13 and 14, the other free ends of the frame being attached to the upright members 10' and 11' by a bolt and thumb screw arrangement 15, the bolt being adapted to slide in slots 16, 17 in the leg members 10 and 11 respectively. Accordingly, when the leg members 10 and 11 are moved close together, the bolt and nut arrangements 15 will lie at the top of the slots 16 and 17, while in the extended position as shown in Figure 2, they will lie at or near the bottom thereof. Accordingly, it will be seen that with this arrangement the two leg frame sections 10 and 11 may be brought together or separated and at all times will remain in parallelism to each other.

On to the frame structure just described, there is mounted a pair of head cushions 18, a chest cushion 19, an abdominal cushion 20, and a leg or lower body cushion 21. The head cushion 18 is made of two generally rectangular padded sections 18A and 18B which are joined together at each end by transverse support members 22, 22' and are hingedly related to the horizontal member 10'' as by hinges 23, 23'. The head cushion is supported in either a horizontal or plurality of adjusted positions by means of a support bracket generally designated 24. This bracket consists of a first member 25 (see Figs. 4 and 5) which is pivotally related to the transverse member 10A of the leg frame 10 by an angle bracket 26 and along the longitudinal extent of the member 25 is an elongated slot 27 provided with a plurality of detents 28. The second part of the bracket 24 consists of another bar 29 which at one end thereof has a pin 30 that is adapted to be received in the elongated slot 27 and engaged in one of the detents 28. To maintain the two parts substantially in a straight line, one edge of the bar 29 is provided with an overhanging lip 31 (see Fig. 6) which engages one edge of the bar 25. The other end of the bar 29 is provided with a pin 32 which is adapted to be received in a slot 33 having two detents 34 all of which are formed in an angle bracket 35 attached to transverse member 22. It will be apparent from the above described structure that the head cushion 18 may be placed in a variety of adjusted positions by changing the point of engagement of the pins 32 and 30 with their respective slots having the detents 34 and 38 respectively. Further, it will be apparent that this particular structure will easily jacknife, the part 25 rotating in a general clockwise direction as viewed in Figure 5 while the part 29 rotates about pivot point 30 in a general counterclockwise direction to the position shown in broken line. This permits complete folding of the head cushion 18 parallel to the leg frame structure 10A, a cutout portion 36 being provided in the bar 29 thus permitting said bar to lie substantially parallel to the leg member 10, the cut out 36 embracing the transverse member 10A.

The chest cushion 19 is hingedly related to the upper horizontal member 10'' of the leg frame structure 10 by hinges 39, 39'. Similarly the abdominal cushion 20 is hingedly related to the upper horizontal member 11'' by hinges 40, 40' and since the two cushions are supported in adjusted position in identical manners, only the chest cushion 19 will be described and similar but prime numerals will be used for like parts that are associated with the abdominal cushion. Referring now to Figure 5, the chest cushion 19 may be supported in a general horizontal plane through a bracket assembly generally designated 41. This assembly consists of two bars 42 and 43 which are pivotally related to each other as at 44, the other end of the bar 42 being hingedly related to the underside of chest cushion 19 by means of an angle bracket such as 45 and

the other end of the bar 43 being hingedly related to the transverse member 10A of the leg frame 10 by means of an angle bracket 46. To maintain the two bars 42 and 43 in a relation, such as shown in Figure 5, so that t e chest cushion 19 is generally horizontal, a rod 47 is provided. This rod 47 has an L-shaped end 48 which is adapted to be inserted into an aperture 49 in the bar 42, while the other end thereof is freely received in a bracket 50 depending from the underside of the upper horizontal member 10".

Alternately should it be desired to provide resiliency for the chest cushion 19 or the abdominal cushion 20 for that matter, two sets of springs 51 and 52 have been provided. These two sets of springs are preferably of different construction so that they will exert different elasticity constants, the spring sets 51 have one end thereof received in an eye bracket 53, the other ends thereof being joined together in an eye ring 54 and thence by means of a bar 55 with an L-shaped end adapted for engagement in an aperture 56 located in the bar 43. Similarly the spring sets 52 are received at one end in an eye bracket 57 depending from the underside of the upper horizontal member 10" and are joined together with a ring 58 and thence by means of a rod 59 may engage an aperture 60 in the bar 43. It will be obvious that when the rod 47 is disengaged from its aperture 49 and either one or both sets of springs are engaged in their respective apertures 56 and 60, that the maximum restraining force will be provided for pressure exerted downwardly on the chest cushion 19. If less restraining force is desired, one or the other of the springs may be disengaged giving in effect three different force adjustments for the chest cushion 19. It will of course be apparent that similar remarks apply to the abdominal cushion 20, where an identical structure is utilized.

When either the chest cushion 19 or the abdominal cushion 20 is desired to be folded, the rods 47, 55 and 59 are all disengaged from their respective apertures and in this attitude the bars 42 and 43 will jacknife, the bar 43 rotating in a clockwise direction as viewed in Figure 5, while the bar 42 rotates in a counterclockwise direction, the aperture 42A embracing the cross member 10A so that the cushion 19 or 20 will fold snugly against the vertical extent of the leg frame members 10 or 11 as the case may be.

The foot portion 21 is hingedly related to the transverse member 11" by hinges 61, 61' (see Fig. 3). At the outer end of the leg or lower body support 21, there are provided two identical bracket members 62 which are secured to the underside of the member 21. A U-shaped leg 63 having outturned ends 64 is received in appropriate apertures in the bracket member 62. The arrangement of the leg 63 and the length of the leg or body support cushion 21 is such that when the leg 63 is swung underneath the cushion 21, it will neatly fit therein, and thus the leg and lower body support cushion member 21 may be swung so as to lie substantially parallel to the vertical extent of the leg member 11.

When one wishes to collapse the structure, it is merely necessary to loosen the wing nuts of the assembly 15 and drop the cushions 18, 19, 20 and 21 to their vertical closed positions. The entire assembly may then be push d together so that the leg members 10 and 11 approach each other, and the chest cushion 19 and abdominal cushion 20 abut. To maintain the table in the collapsed condition such as shown in Figure 1, the wing nuts of the assembly 15 may then be tightened and a suitable handle arrangement such as 65 consisting of a comfortable hand engaging member 66 and two hook members 67 may be utilized, the hook members 67 being engaged into pad eves 68, 69 provided in the upper horizontal members 10" and 11" respectively. As a refinement, a suitable cover

may be provided for the entire device which may be made out of any suitable textile or other flexible material that will prevent dust and other foreign matter from collecting on the table, either in its stored condition or while being carried to the patient's home.

From the above description, it will be apparent to those skilled in the art that there is described herein a portable chiropractic table with all of the necessary cushions for performing body adjustments and particularly one which is extremely portable, which portability may be enhanced by constructing the rigid and main frame members from light and yet strong metallic materials such as the various alloys of aluminum and magnesium that are now available. Further the table is capable of all the necessary adjustments that are used in making the body adjustments and is of simple construction requiring no unusual servicing through use.

I claim:

1. A chiropractic table comprising a pair of leg members, a pair of cushions hingedly supported on each leg member to swing in overlapping relation to the leg member, an extendable frame between said leg members located out of the path of movement of the cushions, means between said leg members and said cushions for supporting the cushions substantially in a single plane to present a platform surface, said means permitting adjustment of said cushions and folding thereof parallel to said leg members and overlapping them.

2. A chiropractic table as in claim 1 wherein a head and chest cushion are supported on one leg member and an abdominal and leg cushion are supported on the other leg member, said chest and abdominal cushion supporting means each comprising two bars pivotally joined together, one bar pivoted to the cushion and the other bar pivoted to the leg member and means for detachably securing said bars relative to each other.

3. A chiropractic table as in claim 2 including spring means to support the chest and abdominal cushions yieldingly when said detachable securing means is freed comprising at least one spring connected to said leg member and removably connected to the said other bar.

4. A chiropractic table comprising a pair of leg members, a head and chest cushion hingedly supported on one leg member and an abdominal and leg cushion supported on the other leg member, adjustable support means between said one leg member and said head cushion, said adjustable support means adapted to collapse and permit the head cushion to fold against and overlap said one leg member, second support means for said leg cushion adapted to collapse and permit the leg cushion to fold against and overlap said other leg member, and spring means to yieldingly support the chest and abdominal cushions and permit the cushions to fold against and overlap their respective leg members whereby the leg members may be moved toward each other to make a portable package.

5. A chiropractic table as in claim 4 wherein said spring means includes at least one spring attached to the leg member and a collapsible support bar assembly, the other end of the spring detachably connected to said assembly.

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