Sept. 9, 1947. G. B. HAMPTON 2,427,053

COMBINATION CHAIR AND TABLE FOR BODY MASSAGING AND MUSCLE MANIPULATION

Filed Sept. 16, 1946 2 Sheets-Sheet 1

Fig. 1

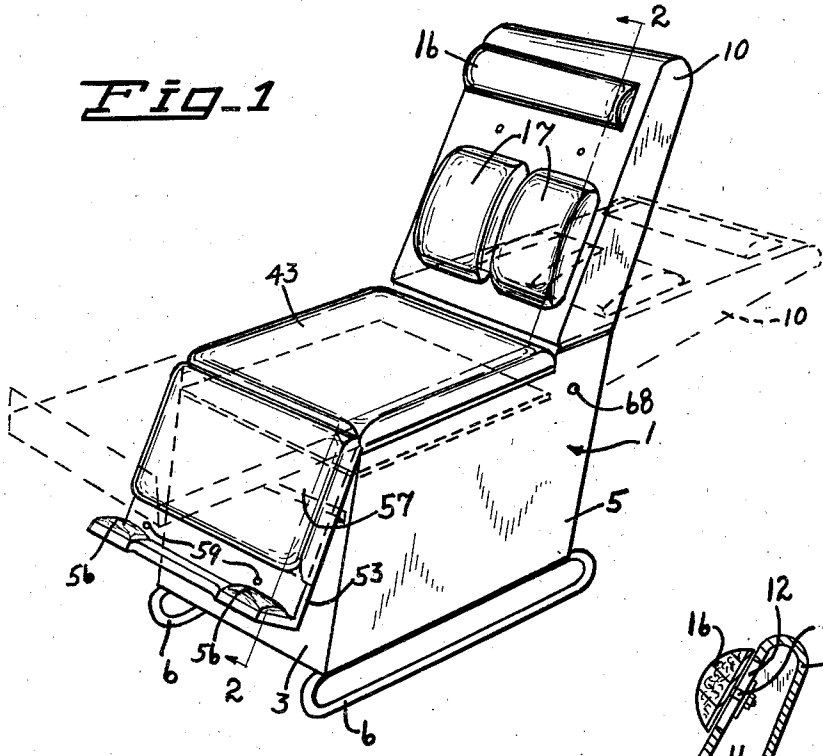
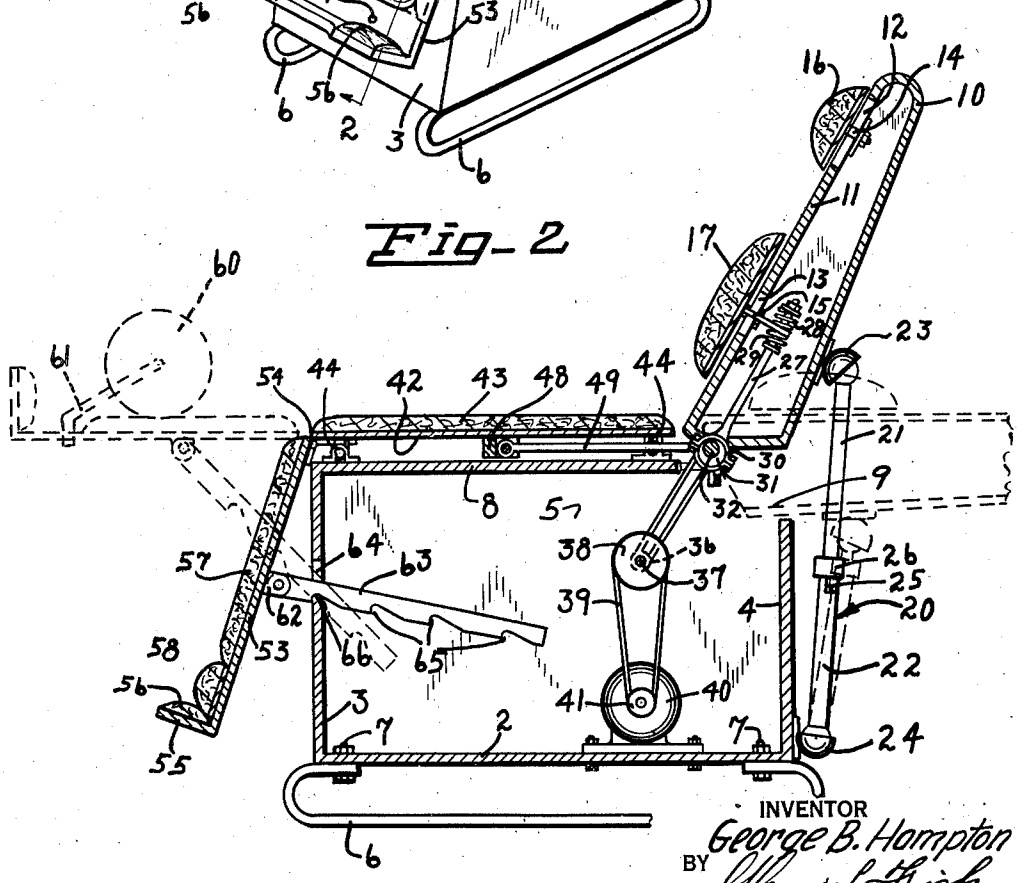


Fig. 2



INVENTOR
George B. Hampton
BY Glenn L. Fish
ATTORNEY

Sept. 9, 1947. G. B. HAMPTON 2,427,053

COMBINATION CHAIR AND TABLE FOR BODY MASSAGING AND MUSCLE MANIPULATION

Filed Sept. 16, 1946 2 Sheets-Sheet 2

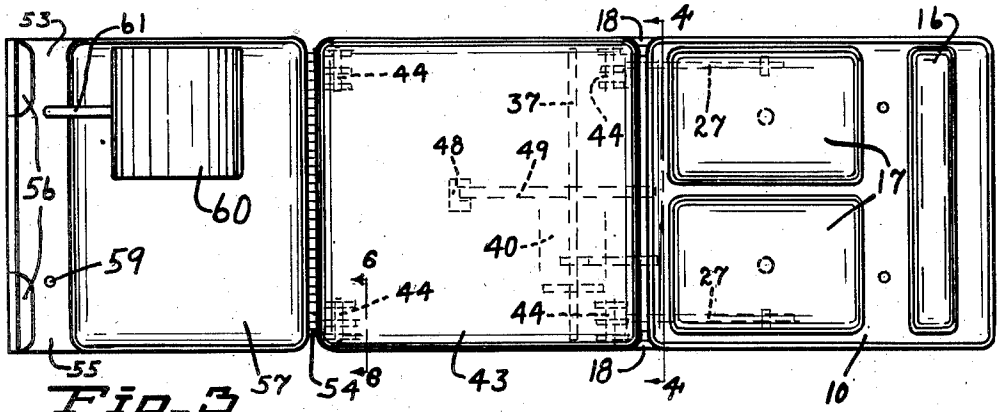


Fig-3

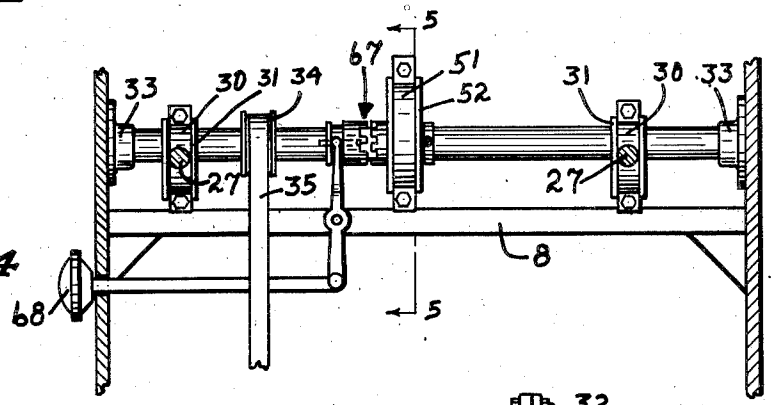


Fig-4

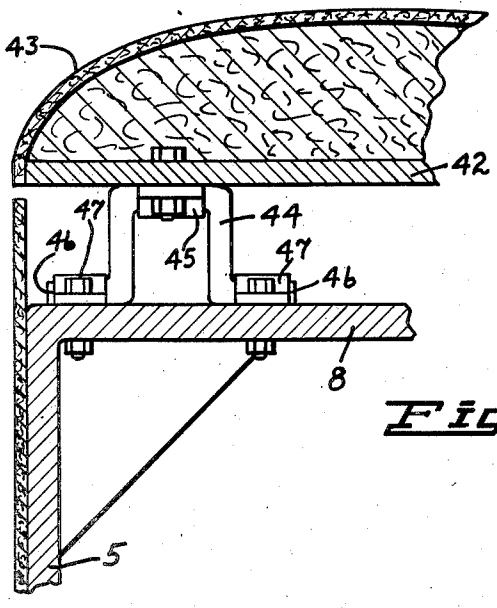


Fig-6

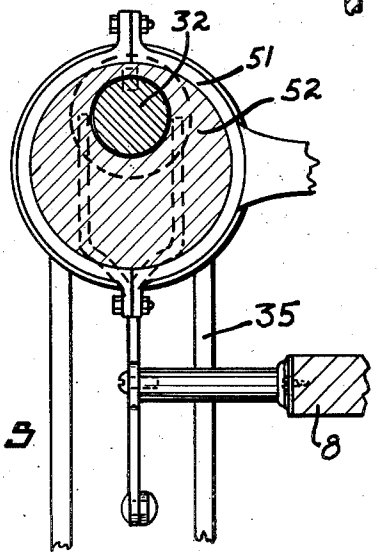


Fig-5

INVENTOR
George B. Hampton
BY
Glenn & Fish
ATTORNEY

Patented Sept. 9, 1947 2,427,053

UNITED STATES PATENT OFFICE

2,427,053

COMBINATION CHAIR AND TABLE FOR BODY MASSAGING AND MUSCLE MANIPULATION

George B. Hampton, Spokane, Wash., assignor to H. F. T. Company, a corporation of Washington

Application September 16, 1946, Serial No. 697,288

4 Claims. (Cl. 128—52)

1

This invention relates to a combined chair and table for use by osteopathic physicians, physical culturists, and others who treat the body by massaging and manipulating the muscles.

One object of the invention is to provide a combined chair and table having a back and leg supporting portion so mounted that they may be tilted from a normal position to a position in which they extend horizontally in alignment with the seat portion and thus allow a patient to be shifted from a seated position to a reclining position where the patient will be supported in such position that the doctor, nurse, or other attendant may conveniently perform the necessary massaging and other manipulations required for treatments.

Another object of the invention is to provide a device of this character wherein the back and the seat are provided with padded body-engaging and supporting members so mounted that they may have movements imparted to them which greatly aid in massaging and manipulations to be applied.

Another object of the invention is to provide motor driven means for imparting movements to the padded members and thus allow them to be applied automatically during operation of the motor.

Another object of the invention is to provide a device of this character which is simple in construction and efficient in operation.

The invention is illustrated in the accompanying drawings wherein:

Fig. 1 is a perspective view of the combined chair and table.

Fig. 2 is a vertical sectional view taken longitudinally through the table and chair, as at line 2—2 of Fig. 1.

Fig. 3 is a top plan view showing the back and the leg support in a horizontal position.

Fig. 4 is a transverse sectional view taken along the line 4—4 of Figure 3.

Fig. 5 is a sectional view taken along the line 5—5 of Figure 4.

Fig. 6 is a fragmentary sectional view taken along the line 6—6 of Figure 3.

This combined chair and operating table has a body or frame 1 which is formed of metal and has a bottom 2, front and rear walls 3 and 4, and side walls 5. Skids 6 are provided at opposite sides of the frame or body to support the same and allow it to be easily shifted from one place to another, and these skids have end portions bent upwardly and inwardly and secured under side edge portions of the bottom 2 by bolts 7. The top 8 of the body is carried by the front and side walls but terminated in spaced relation to the rear end of the body, and upon referring to Figure 2 it will be seen that the rear wall is of reduced height in order to provide an opening 9 across the top of the rear end of the body.

2

The back 10 of the chair is of hollow formation and its front wall 11 is formed with slots 12 and 13 through which pass the shanks 14 and 15 of the head rest 16 and the shoulder pads 17. The head rest extends across the upper end portion of the back for the major portion of its width and the shoulder pads are disposed in side by side relation to each other. By this arrangement the head rest may be shifted along the back to adjusted positions and the shoulder pads may be shifted along the back and also have reciprocating movement imparted to them. Ears 18 project from the back at opposite sides of its lower end and these ears are pivoted to the side walls 5 of the body 1 to mount the back for vertical swinging movement from the raised position shown in full lines in Figures 1 and 2 to the lowered or reclining position indicated by dotted lines in these figures. A brace 20 having telescoping upper and lower sections 21 and 22 is disposed midway the width of the base at the back thereof and has its upper and lower ends connected with the back 10 and the rear wall of the body by ball and socket joints 23 and 24, and since the lower section has its upper end portion formed with a longitudinally extending slit 25 and carries a threaded compressing ring 26 the back 10 may be tilted to adjusted positions and the ring then tightened to clamp the upper end of the lower bracket section about the upper brace section and firmly hold the back in the adjusted position.

The shoulder pads are to be reciprocated along the back in order to have massaging contact with a patient and in order to do so there have been provided pitman rods 27 which extend longitudinally of the back, within the same, and have their upper portions passed through openings formed in the arms of the shoulder pads and carry springs 28 and 29 which permit the rods 27 to have a certain amount of movement relative to the arms 15 at ends of their movement in opposite directions. The lower or front ends of the pitman rods are provided with collars 30 which fit about eccentric disks or blocks 31 fixed upon a shaft 32. This shaft extends transversely of the lower end portions of the back and at its ends is rotatably mounted in bearings 33

carried by the back at opposite sides thereof, and near one end the shaft carries a pulley 34 about which is trained a belt 35 which extends downwardly into the body and has its lower portion engaged about a pulley 36 carried by a shaft 37. This shaft 37 extends transversely of the body and in addition to the small pulley 36 also carries a large pulley 38 about which is trained a belt 39. The pulley 38 is disposed over an electric motor 40 mounted upon the bottom 2 of the body and the lower portion of the belt 39 is trained about a small pulley 41 carried by the shaft of the motor, and upon referring to Figure 2 it will be seen that due to the relative sizes of the pulleys rotary motion will be transmitted at reduced speed from the motor to the shaft 32 and the back pads caused to be reciprocated at such speed that while they will have good massaging contact with the back of a patient they will not cause irritation due to moving at too fast a speed.

Over the top wall 8 of the body is disposed a seat or platform 42 which is covered by a pad 43 and at its corners carries hinge brackets 44 which are of inverted U-shape and mounted for swinging movement by bearings 45. Lower ends of the arms of the brackets 44 are bent to form pintles 46 which are rotatably mounted through bearings 47 carried by the top of the body. By this arrangement the platform or seat will be mounted for oscillating movement and also have vertical pulsating movement as it moves longitudinally. A block 48 is mounted under the platform and to this block is pivotally connected the front end of a pitman rod 49 which extends longitudinally of the body and at its rear end is provided with a collar 51 engaged about an eccentric disk 52 mounted upon the shaft 32 midway the length thereof. Therefore during rotation of the shaft the platform 42 will be manipulated as well as the shoulder pads and manipulations applied to muscles and organs of the patient's body. A clutch 67 is provided on the eccentric 52 which is operated by pulling or pushing knob 68. This allows the shoulder pads 17 to be reciprocated, but the seat portion 42, may be disengaged through clutch 67 thereby imparting no movement to that portion.

The section 53 at the front of the chair is connected with the body by hinges 54 for vertical swinging movement to adjusted positions and has its free front or lower end portion provided with a foot board 55 against which pads 56 are mounted. A pad 57 covers the front section and extends from its rear end to a point spaced rearwardly from the foot board, thus providing space for an auxiliary pad 58 which fits snugly between the pad 57 and the pad 56 and is removable from the front section. When the pad 58 is removed openings 59 through which pins carried by the pad 58 engage will be exposed and a padded roll 60 serving as a leg rest may be set in place and the downwardly bent end of its anchoring arm 61 engaged through one of the openings to hold the leg rest in place upon the pad 57. If so desired two of the leg rests may be used and each have its anchoring arm engaged in an opening 59 or a longer leg rest having two anchoring arms used and its two anchoring arms engaged in the openings. A bracket 62 is carried by the front section at the rear or under face thereof and to this bracket is pivotally mounted a rack bar 63 which passes through a slot 64 and is formed along its lower edge portion with teeth 65 for engaging the rounded edge 66 at the lower end of the slot and releasably holding the lower section in an adjusted position.

When the chair is in use the patient sits upon the padded platform with his back resting against the pads 17 and his lower legs against the padded front section. The front section is swung upwardly to the raised position and the back swung downwardly to the lowered position, thus providing a table upon which the patient rests. The motor may then be started and rotation of the shaft 32 will cause the shoulder pads to be reciprocated and the platform 42 to be reciprocated and also moved vertically with an undulating movement which is beneficial to the muscles and internal organs of the patient. If so desired the motor may be stopped and the operator apply massaging and manipulations by hand or hand manipulations may be applied while the motor is running and the platform and the shoulder pads in motion. The padded roll or rolls will be used for supporting the legs of the patient while leg muscles are being massaged and if so desired the patient may reverse upon the table and the rolls used as arm supports while massaging arm muscles.

Having thus described the invention, what is claimed is:

1. An operating chair comprising a body, a back pivoted to the body for vertical swinging movement to raised and lowered positions, a leg support at the front of the body pivotally mounted for vertical swinging movement to raised and lowered positions, a platform over the body mounted for reciprocating movement longitudinally of the body and for movement toward and away from the body during its reciprocating movement, pads at the front of the said back shiftable longitudinally thereof and having shafts passing through slots in the back, a shaft rotatably mounted transversely of the lower end of the back, eccentric disks carried by said shaft, pitman rods connected with the platform and the shanks of said pads, said rods having collars fitting about the said disks for causing longitudinal reciprocating movement of the pads and the platform during rotation of said shaft, a motor in said body, and means for transmitting rotary motion at reduced speed from the motor to said shaft.

2. An operating chair comprising a body, a back tiltably mounted at the rear of the body, a leg support tiltably mounted at the front of the body, means for supporting the back and the leg support in adjusted positions, a platform over the body mounted for reciprocating movement and having movement toward and away from the body during such reciprocating movement, pads at the front of the back mounted for reciprocating movement, a shaft rotatably mounted, a motor for rotating said shaft, pitman rods connected with the pads and the platform, and means carried by the shaft for shifting the said pitman rods longitudinally during rotation of the shaft and imparting reciprocating movement to the pads and the platform.

3. An operating chair comprising a body, a back tiltably mounted, means for supporting the back in adjusted positions, a platform over the body mounted for reciprocating movement and having movements toward and away from the body during such movements, pads in front of the back, a rotatable shaft, means actuated by the shaft for simultaneously imparting the movement to the pads and the platform, and driving means for said shaft.

4. An operating chair comprising a body, a back tiltable vertically to adjusted positions, a platform mounted for massaging movements over the body, pads mounted for massaging movements at the front of the back and having shanks extending through openings in the body, a rotatable shaft, cams carried by said shafts and pitman rods mounted about said cams and connected with the platform and the shanks of the pads for simultaneously imparting movements to the platform and the pads during rotation of the shaft.

GEORGE B. HAMPTON.

REFERENCES CITED

The following references are of record in the file of this patent:

UNITED STATES PATENTS

Number	Name	Date
1,129,802	Hoard	Feb. 23, 1915
1,984,397	Dalyze	Dec. 18, 1934