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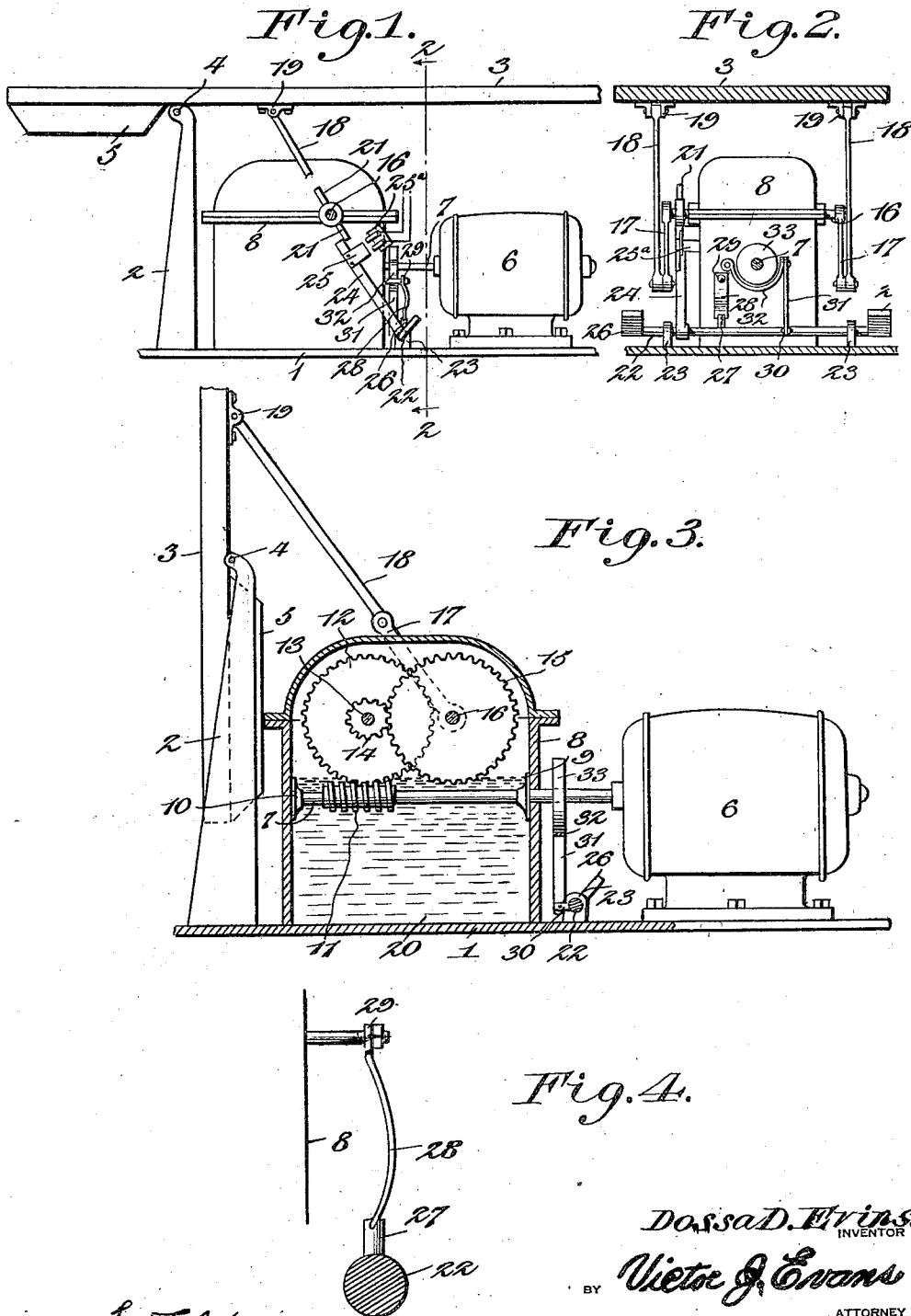
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ATTACHMENT FOR CHIROPRACTIC TABLES

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WITNESS:

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UNITED STATES PATENT OFFICE.

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ATTACHMENT FOR CHIROPRACTIC TABLE.

Application filed October 23, 1920. Serial No. 419,122.

To all whom it may concern:

Be it known that I, DOSSA D. EVINS, a citizen of the United States, residing at Davenport, in the county of Scott and State of Iowa, have invented new and useful Improvements in Attachments for Chiropractic Tables, of which the following is a specification.

This invention relates to chiropractic tables and the principal object is to provide an attachment for a table of this kind with power driven means for moving the table from horizontal position to substantially a vertical position and vice versa. Electric or water motors, gas, steam or air engines may be used for power, but in this disclosure an electric motor attachment is described.

Another object is to provide a device of this nature in which both the movement of the table from horizontal to vertical position and from vertical to horizontal position may be attained by movement of the power shaft and gears in the same directions in both instances without the necessity of resorting to reversing mechanisms, using one half cycle for lowering and the other half cycle for raising.

Another object is to provide a substantially noiseless gearing for effecting said movements.

Another object is to provide an automatic stopping device.

Other objects will appear from the following description and claims.

One embodiment of the invention is shown in the accompanying drawing comprising one sheet, in which:—

Figure 1 is a side elevation of my improved invention, the table being shown in a horizontal position.

Figure 2 is a sectional view taken on the lines 2—2 of Figure 1.

Figure 3 is an enlarged vertical sectional view therethrough, the table being shown in its vertical position.

Figure 4 is a detail view of the tension spring.

Like characters of reference refer to like parts in all views.

Referring to the drawings in detail, 1 represents the base of a chiropractic table, and 2 represents a pair of uprights which carry at their upper ends the table top 3 pivotally mounted at 4 and provided with a suitable counter weight 5. The counter weight may be omitted if desired.

Mounted on the base 1 is an electric motor conventionally shown at 6 and including a power shaft 7. Also mounted on base 1 is a gear box or housing 8 which is oil-tight and is provided with bearings 9 and 10 for the power shaft 7. Between bearings 9 and 10, the shaft 7 is provided with a worm 11.

Meshing with worm 11 is a worm gear 12 secured to a stub shaft 13 having its bearings in the side walls of the housing 8. Mounted on the stub shaft 13 is a pinion 14 which meshes with a gear 15 mounted on a stub shaft 16. Shaft 16 has bearings on the side walls of the housing 8 and extends beyond said walls at each side and has secured to it arms 17. To the free end of each arm 17 is attached one end of a respective connecting rod 18, the other end of which is pivoted to the under side of the table 3 at 19. It is, of course, understood that the number of gears may vary according to the desired speed and power ratio between the power shaft and the table.

The gear box 8 is oil tight and filled with oil 20 to render operation of the gears substantially noiseless and insure long life without attention.

Mounted for rotation with shaft 16 is a pair of diametrically extending arms 21. A shaft 22 is mounted for oscillation in bearings 23 on the base and has secured to it an upwardly extending arm 24 the free end of which is in the same plane as the arms 21 and is adapted to be moved into and out of the path of arms 21 by oscillation of shaft 22. Arm 24 carries one member 25 of a switch having contacts 25^a mounted on the framework, which contacts are connected in the motor circuit so that when member 25 contacts member 25^a, the circuit is closed and the motor will be operated. Shaft 22 is provided with foot levers or pedals 26, and is provided with a radially extending lug or pin 27 in the outer face of which is provided a bearing for the lower end of a flat spring 28 secured to the framework at 29. The construction and arrangement of this spring are best shown in Figure 4.

A pin 30 extends radially from shaft 22 and carries an upwardly extending link 31 which is connected to a brake-band 32 mounted in operative relation to a brake-drum 33 on the power shaft 7.

In operation, the table is normally in the vertical position shown in Figure 3. The

operator places his foot on pedal 26 and the shaft 22 is oscillated until pressure of spring 28 passes the center of shaft 22, then said spring rotates the shaft until the switch 25—25^a is closed, thereby starting the motor. Thereupon shaft 7 causes worm 11 to drive gears 12, 14 and 15, and through shaft 16 rotates arms 17 thereby moving rods 18 to rotate the table 3 about its pivot until the table approaches its horizontal position as shown in Figure 1. One of the arms 21 will now come against arm 24 and move it rearwardly until the spring 28 moves over the center of shaft 22, whereupon said spring will oscillate shaft 22 back to its normal or inoperative position with the switch 25—25^a open. As the shaft 22 moves back to normal position pin 30 and link 31 raise the brake-band 32 into contact with the drum 33 and this brake tends to quickly overcome the momentum and stop the table. The parts are to be so positioned that the stopping points in raising and in lowering will be with the eccentric 17 on "dead center" so that when the motor is started, the load will be at its lightest and the movement slightest. This prevents sudden and jerky stop and start; and permits the use of small induction motors; also doing away with the use of reversing mechanism.

While I have described what I deem to be the most desirable embodiment of my invention, it is obvious that many of the details may be varied without in any way departing from the spirit of my invention, and I therefore do not limit myself to the exact details herein set forth, nor to anything less than the whole of my invention limited only by the appended claims.

What is claimed as new is:—

1. A chiropractic table comprising a base, a platform pivotally mounted upon said base, a gear box mounted on said base below said platform, gearing mounted in said gear box, a motor having its shaft extending into said gear box and provided with a worm

for operating said gearing, arms operable by said gearing, connecting rods operable by said arm and having pivotal connection with said platform, an electric switch for controlling the operation of said motor, foot actuated means for closing said switch to cause movement of said platform in either direction, and spring controlled automatic means for opening said switch upon the limit of movement of said platform in either direction, and a brake device automatically operable by the closing of said switch for overcoming the momentum of said platform.

2. A table of the character described comprising a base, a pair of spaced uprights rising from the base, a top pivotally secured adjacent one end to the upper ends of the uprights, a gear box fixed to the base, a motor driven shaft passing longitudinally therethrough, a worm fixed to the inner end of the motor driven shaft, a stub shaft arranged at right angles to a motor driven shaft and rotated through the medium of a train of gears associated with the worm, arms secured to the ends of the stub shaft, connecting rods pivotally secured to the arms and table top respectively in a manner whereby said table top is moved in a horizontal plane, a pair of diametrically oppositely disposed extending arms formed on the stub shaft, switch means for controlling the motor, and arranged in the path of the diametrically oppositely disposed extending arms, a foot control lever mounted for oscillatory movement to the base, an arm rising from said foot control lever and carrying one of the members of the switch, and brake means operated by said foot lever and including means fixed to the motor driven shaft, and spring controlled means for automatically moving said foot lever as and for the purpose specified.

In testimony whereof I have affixed my signature.

DOSSA D. EVINS.