June 18, 1940. K. A. RUPP 2,204,624

MASSAGE TABLE

Original Filed Nov. 23, 1937 3 Sheets-Sheet 1

Fig. 1.

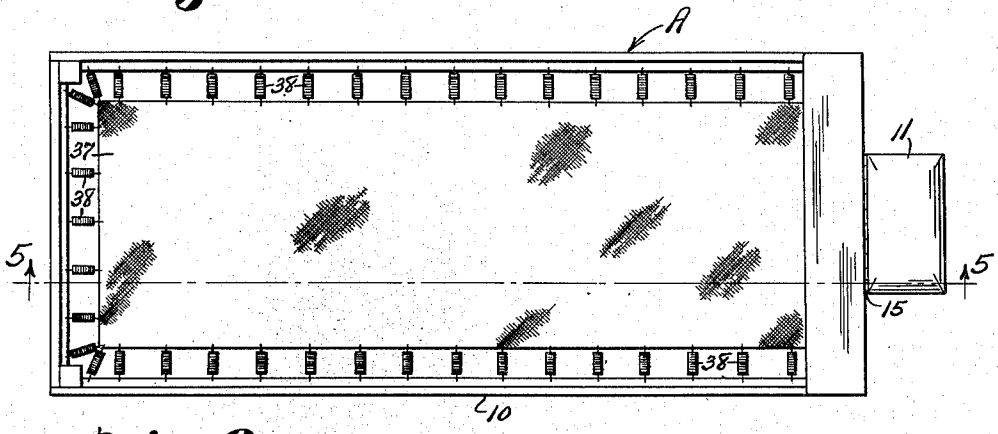


Fig. 2.

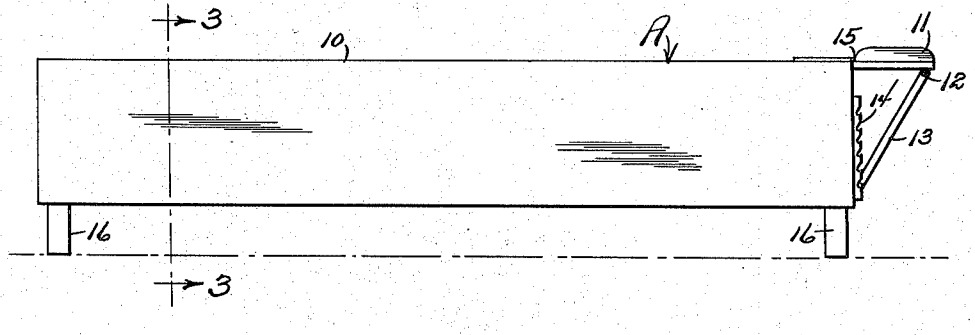
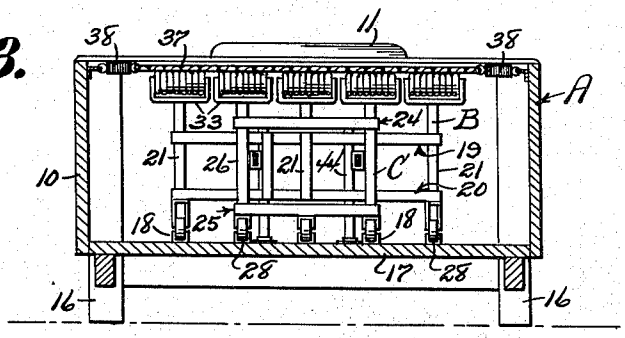


Fig. 3.



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MASSAGE TABLE

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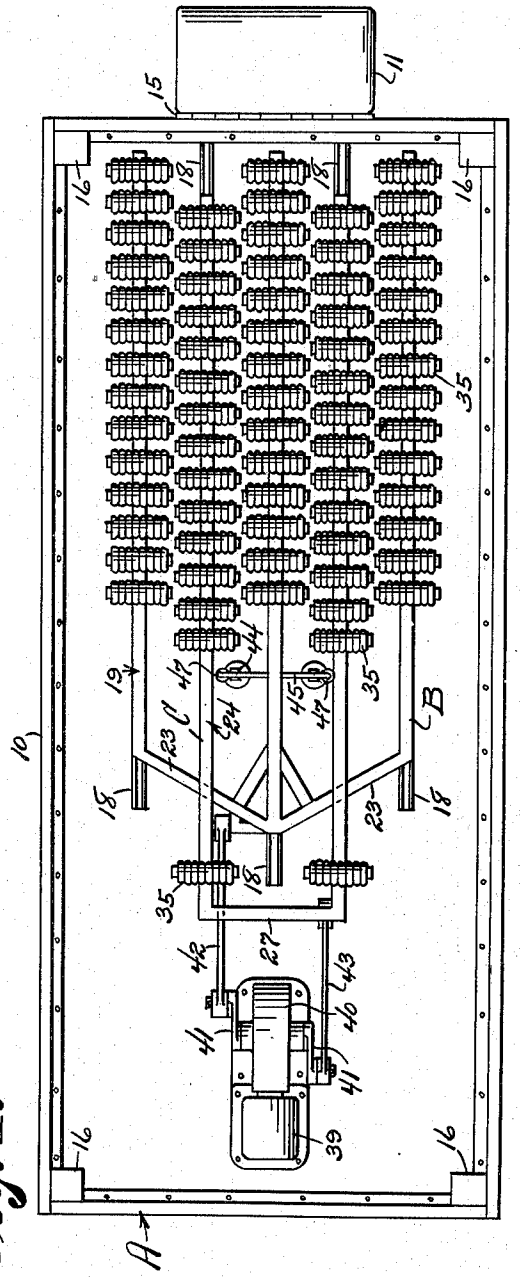


Fig. 4.

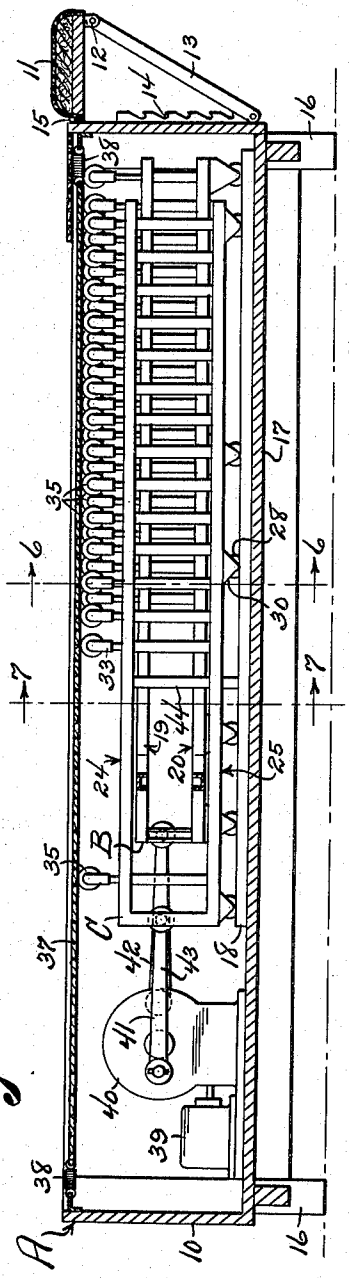


Fig. 5.

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MASSAGE TABLE

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Fig. 6.

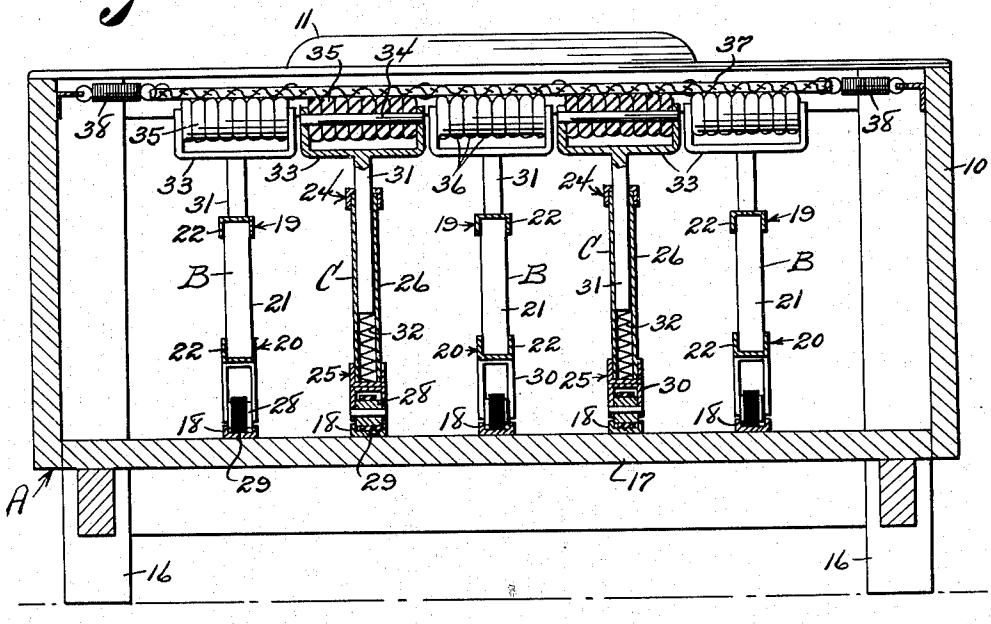


Fig. 7.

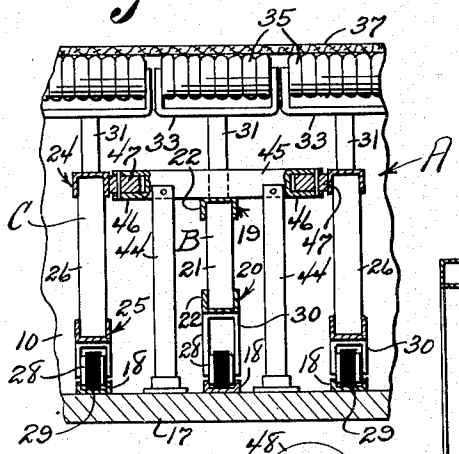


Fig. 8.

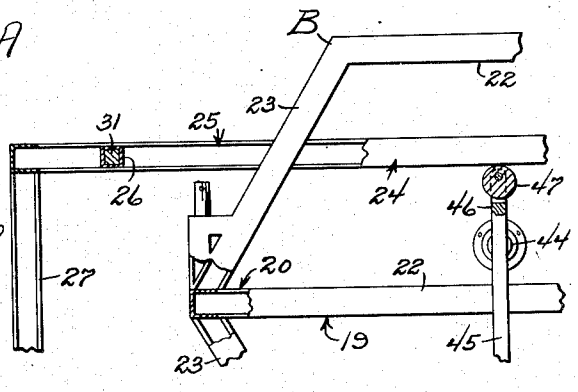
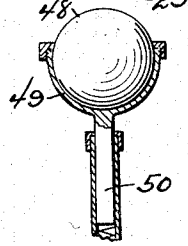


Fig. 9.



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UNITED STATES PATENT OFFICE

2,204,624

MASSAGE TABLE

Kenneth A. Rupp, Pittsburgh, Pa., assignor of one-tenth to John H. Proudley, Jr., Pittsburgh, Pa.

Application November 23, 1937, Serial No. 176,126
Renewed August 31, 1939

1 Claim. (Cl. 128—57)

The invention relates to a massaging apparatus and more especially to a massage table.

The primary object of the invention is the provision of a table of this character, wherein through the use of a plurality of massage elements, either of roller formation or spherical shape, will be caused to move in groups reversely to each other so that a person or patient occupying the table will be subjected to massaging action so as to stimulate circulation and also to relieve muscular disturbances, aches and pains, the table being adapted for service in clubs, private homes, physicians' offices, hospitals or other places and is effective also for reducing the weight of a person through massage.

Another object of the invention is the provision of a table of this character, wherein the massaging elements will be automatically driven, being motivated through a power source and in their mounting yield to the contour of the body of the person receiving treatment thereby and such patient is supported upon a sheeting, such as canvas, yieldably carried by the table and in this fashion massaging can be had in a thorough and efficient manner, both the body and limbs of such person receiving such treatment.

A further object of the invention is the provision of a table of this character, wherein the construction thereof is novel in its entirety and assures massaging treatment without requiring the services of a masseur.

A still further object of the invention is the provision of a table of this character, which is simple in construction, thoroughly reliable and effective in operation, strong, durable, and inexpensive to manufacture.

With these and other objects in view, the invention consists in the features of construction, combination and arrangement of parts as will be hereinafter more fully described, illustrated in the accompanying drawings, which disclose the preferred and modified forms of embodiment of the invention and pointed out in the claim hereunto appended.

In the accompanying drawings:

Figure 1 is a top plan view of a massage table constructed in accordance with the invention.

Figure 2 is a side elevation thereof.

Figure 3 is an enlarged vertical transverse sectional view taken on the line 3—3 of Figure 2 looking in the direction of the arrows.

Figure 4 is a top plan view with the canvas sheeting or the like removed and on an enlarged scale.

Figure 5 is a sectional view on the line 5—5 of Figure 1 looking in the direction of the arrows.

Figure 6 is an enlarged vertical transverse sectional view taken on the line 6—6 of Figure 5 looking in the direction of the arrows.

Figure 7 is a sectional view on the line 7—7 of Figure 5 looking in the direction of the arrows.

Figure 8 is a fragmentary plan view part'y in section showing the carriages for the massage elements of the table.

Figure 9 is a fragmentary vertical sectional view showing a slight modification.

Similar reference characters indicate corresponding parts throughout the several views in the drawings.

Referring to the drawings in detail, A designates generally the massage table involving a box-like body 10 preferably of substantially rectangular shape, being closed at its bottom, sides and ends while the top is open and at the head end of this body 10 is arranged a vertically swinging padded head rest 11 having pivoted at 12 an adjusting prop 13 engageable selectively in a rack 14 therefor to vary the disposition of the rest 11, which is preferably hinged at 15 to the body 10. The body 10 carries legs 16 elevating it the required distance from a foundation, floor or the like.

Arranged interiorly of the body 10 longitudinally thereof upon the bottom, which is indicated at 17, is a plurality of spaced parallel channel-like tracks 18 and movable upon these are the carriages B and C, respectively. The carriage B involves upper and lower frames 19 and 20, respectively, between which are perpendicular hollow or tubular uprights 21, which are spaced apart and are rigidly joined with the outer and intermediate channeled rails 22 of the said frames 19 and 20, these at one end of the carriage B being united by the diagonally disposed end cross braces 23.

The carriage C involves the upper and lower frames 24 and 25, respectively, having therebetween the perpendicularly disposed hollow or tubular uprights 26 being rigidly joined with the said frames 24 and 25, the latter being open at one end and closed at the opposite end by cross members 27.

The carriages B and C are equipped with caster rollers 28 being rubber tired at 29 and traverse the tracks 18, suitable bearings 30 being provided for the caster wheels 28 of forked type.

The hollow or tubular uprights 21 and 26 are preferably of square formation in cross section and accommodate plungers 31 correspondigly shaped in cross section thereto, being telescoped

within the said uprights and operate for vertical displacement against the tension of coiled springs 32, these being confined within the uprights and act against the inner ends of said plungers 31. The plungers 31 at their upper ends are formed with yokes 33 in which are journaled on axles 34 horizontally disposed massaging rollers 35 having fluted or irregularly formed peripheries as at 36. These rollers 35 at their peripheries 36 play against the under side of a flexible sheet 37 preferably canvas which is yieldably suspended at the open top of the body 10 through the instrumentality of a plurality of coiled retractile springs 38 which are suitably anchored to the sides and ends next thereto of the body 10 and such springs 38 function to normally hold the sheet 37 taut yet yieldable when subjected to a load, that is, a person when reclining or resting upon said sheet 37.

Within the body 10 remote from the head rest 11 is an electric motor 39 operating reducing gearing (not shown) as confined with a gear casing or housing 40 and this gearing actuates double cranks 41, these being reversely set and are connected to connecting rods 42 and 43, respectively, which are pivotally attached with the carriages B and C so that on the starting of the motor 39 reciprocation of these carriages B and C will be had, they reciprocating reversely to each other during the operation of the motor and thus the massage rollers 35 become active for massaging activity upon a user of the table. Certain of the rollers 35 are active upon the limbs of such person while others are active upon the body, the rollers being depressed in the operation thereof accordingly to irregularities in the anatomy of the person being subjected to massage treatments in the use of the table.

Arranged within the body 10 intermediate thereof is a pair of vertically disposed stanchions 44 carrying at their upper ends a cross member 45 in which at the forked extremities 46 are journaled eccentrically acting vibrating rollers 47, these playing upon the side rails of the upper frame 24 of the carriage C so that a lateral vibratory motion will be had on activity of the said carriage C and this motion is transferred to the rollers 35 supported by said carriage C for massage activity, the vibration being extremely slight in that such motion is limited to the looseness of the caster wheels 28 in the forked bearings therefor as well as the loose connection of the connecting rod 42 with the frame 25, the rubber tires 29 being inherently resilient allow for this lateral slight vibration during the movement of the said frame 25.

In Figure 9 of the drawings there is shown a slight modification of the invention wherein in substitute for the rollers 35 there is shown a spherical massage element 48 movably held within a cupped bearing 49 at the upper end of the plunger 50 and thus exemplifying a different type of massaging medium for use in the table.

The rollers may be made of hard rubber or any other suitable material or a composition of the same, this being also true with respect to the spherical element 48.

The disposition of the massage rollers 35 is optional for assuring the desired massaging treatment required by a user of the table. The rollers 35 at all times have contact with the sheet 37 upon which rests a person when being subjected to massage treatment by the table and thus such person is assured of the massage treatment automatically on the starting of the motor 39 without requiring the services of a masseur for hand massage, the massage treatment being exhilarating, healthful and invigorating in that it removes aches, pains and assures stimulation in the circulation of the human anatomy, being also beneficial for weight reducing.

What is claimed is:

A table of the kind described comprising a base, a plurality of tracks arranged in spaced parallel relation to each other upon said base, frames interfitted with each other, caster wheels on said frames and movable on said tracks, tubular uprights fitting said frame, plungers within said uprights, means within the uprights for yieldably supporting the plungers therein, yokes on said plungers, massage rollers journaled in said yokes, a flexible sheet yieldably suspended for contact of the said massage rollers therewith at the under side of the same, and means connected with said frames and operating the same simultaneously with each other in reverse directions to one another.

KENNETH A. RUPP.