June 22, 1948. B. WANDEL 2,443,845

MASSAGE APPARATUS

Filed Oct. 24, 1945 2 Sheets-Sheet 1

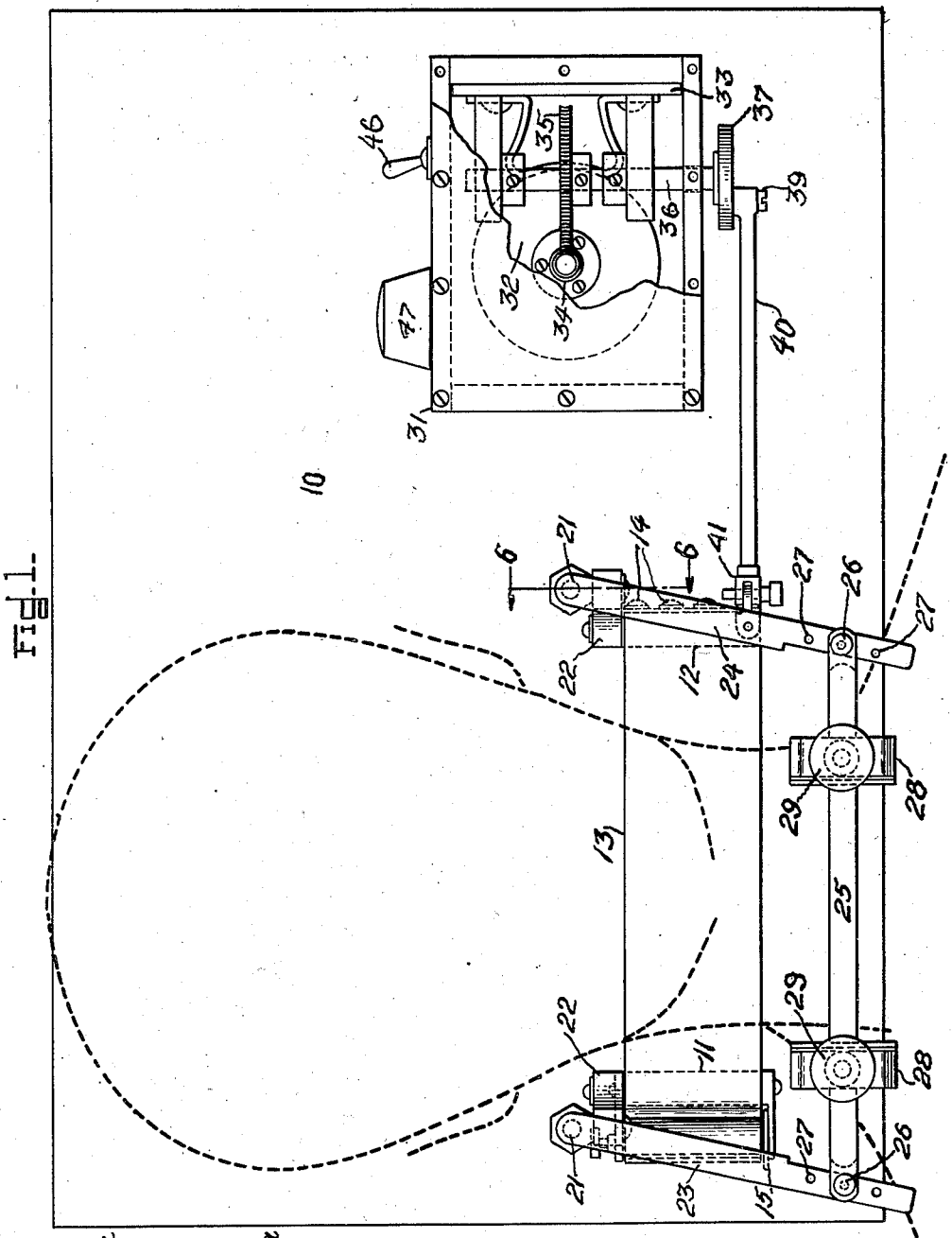

Fig. 1.

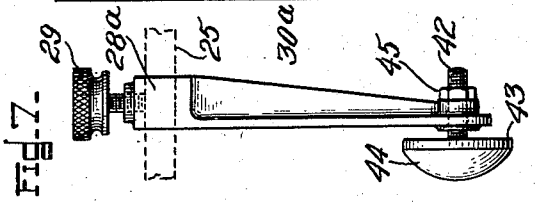

Fig. 7.

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June 22, 1948. B. WANDEL 2,443,845

MASSAGE APPARATUS

Filed Oct. 24, 1945 2 Sheets-Sheet 2

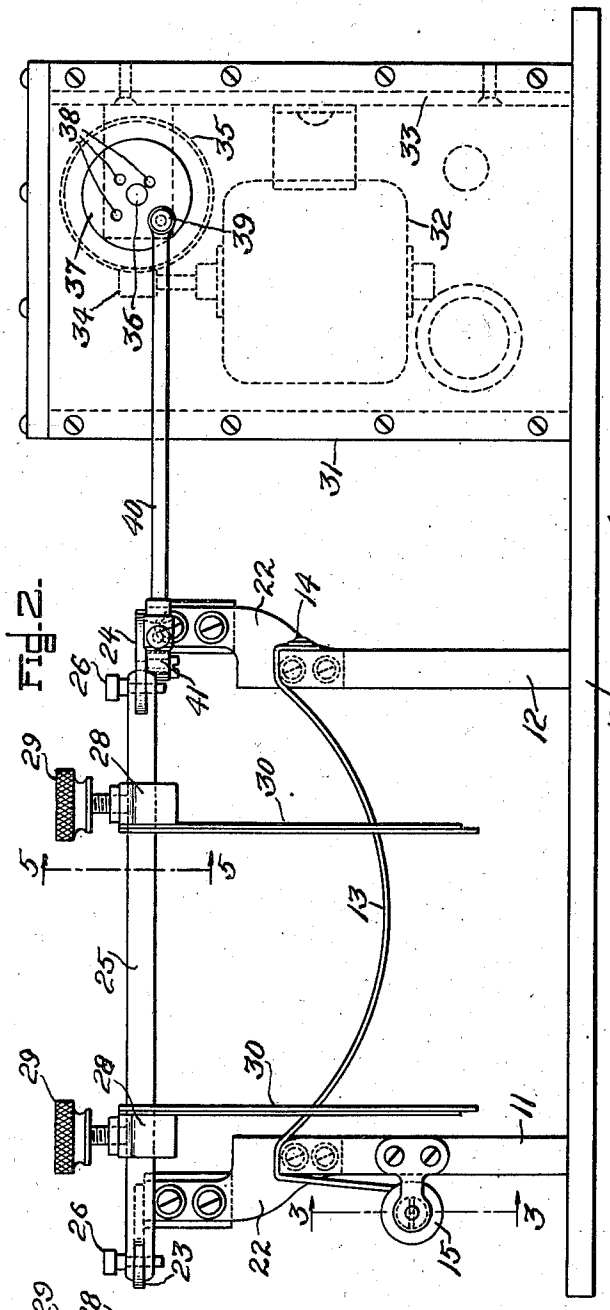

Fig. 2.

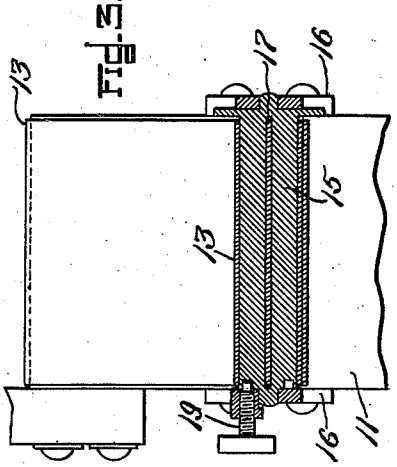

Fig. 3.

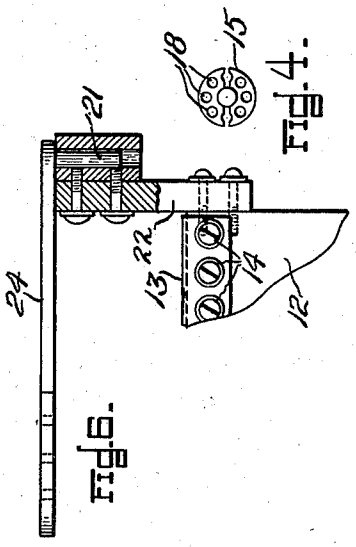

Fig. 4.

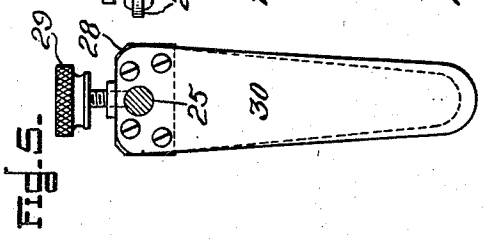

Fig. 5.

Fig. 6.

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MASSAGE APPARATUS

Bronislaw Wandel, Boston, Mass.

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3 Claims. (Cl. 128—51)

1

This invention relates to improvements in massage apparatus and it has for its object to provide an improved apparatus of the class indicated which will be particularly adapted for use in massaging the neck of a patient to activate and stimulate the thyroid gland and in that manner counteract the chronic passive state of the gland which so often lies at the bottom of overweight.

To these ends I have provided an improved massage apparatus which, in the preferred embodiment thereof, may be constructed and utilized as hereinafter set forth, the several novel features of the invention being separately pointed out and defined in the claims at the close of the following description. It is to be understood, however, that the illustrated embodiment of the invention is to be taken as a preferred example of the latter and that various changes may be resorted to without departing from my invention as defined in the appended claims.

In the accompanying drawings:

Figure 1 is a top plan view, partly broken away, of a massage apparatus constructed in accordance with this invention.

Figure 2 is a front elevation of the apparatus shown in Figure 1.

Figure 3 is a section on line 3—3 of Figure 2.

Figure 4 is an end view of the take-up roll hereinafter described.

Figure 5 is a section on line 5—5 of Figure 2.

Figure 6 is a section on line 6—6 of Figure 1.

Figure 7 illustrates an alternative form of presser member.

The embodiment of the invention illustrated in Figs. 1 to 6, inclusive, of the drawings, comprises a base 10 adapted to rest flatwise upon a floor, table or other suitable support capable of also supporting the body of the patient who lies thereon upon his back with his head supported by the base as indicated by dotted lines in Fig. 1.

Upon its top side the base 10 is made with two rigid upstanding posts 11 and 12 which are spaced apart to receive between them the neck of the patient which rests upon a neck-supporting cradle 13 consisting of a flexible band of textile fabric or other suitable material whose opposite ends are securely connected to the posts 11 and 12, respectively.

One end of the cradle band 13 is fastened by screws 14 to the outer side of post 12 and from these screws said band extends upwardly and laterally across the tops of both posts 11 and 12 with its opposite end portion extending downwardly outside of post 11 to a normally fixed horizontal take-up roll 15 (Figs. 1, 2 and 3).

2

Roll 15 is provided at its opposite ends with trunnions journaled within apertures provided in brackets 16, 16, secured to post 11 and is also formed with a longitudinal slot 17 that is slightly longer than the width of cradle band 13, the end of the latter being inserted within said slot after which the roll is manually rotated to wind thereon the end portion of band 13 to set the intermediate portion of the band at the desired height.

One end of roll 15 is provided with a circular series of sockets 18 (Fig. 4) disposed concentrically with the axis of the roll, either of said sockets being adapted to receive within it the reduced inner end portion of a threaded bolt 19 by which the roll 15 is securely locked against rotary movement under the influence of strains imposed upon band 13 by the patient. This threaded bolt is provided at its outer end with a circular head by means of which said bolt is manually operated when adjusting the cradle for each patient when such adjustment is desirable or necessary.

Pivotally mounted at 21 (Figs. 1 and 6) upon brackets 22 rigidly secured to posts 11 and 12 are two relatively parallel horizontal lever arms 23 and 24 whose free end portions are pivotally and detachably connected to the opposite ends of a link 25 (Figs. 1 and 2) by means of removable pivot pins 26 occupying apertures provided in the levers and links, each lever being provided with a longitudinal row of apertures 27 so that the link 25 may be adjusted toward and from the pintles 21.

The link 25 has mounted thereon two spaced-apart presser members 28 each of which is normally fixed in position on said link by a finger-operated set screw 29 so that it may be adjusted lengthwise of the link thereby to properly position it with respect to the neck of the patient. Each presser member 28 is constructed with a flexible depending arm 30 (Fig. 2) whose lower end portion occupies a position alongside of the neck of the patient.

Upon the top of base 10 there is provided a box-like housing 31 (Figs. 1 and 2) within which is arranged an electric motor 32 that is mounted upon a base plate 33, said plate being fastened by screws to a side wall of the housing. Fixed on the shaft of motor 32 is a worm 34 in mesh with a worm gear 35 fast on a horizontal shaft 36 journaled in bearings provided on plate 33. This shaft 36 extends forwardly through the front wall of the housing and, outside of the latter, is provided with a disk 37 made with a plurality of threaded holes 38 (Fig. 2) disposed at

different distances from the axis of shaft 36. Into one of these holes is tightly screwed a threaded wrist pin 39 by which one end of a connecting rod 40 is attached to the disk 37. The opposite end of rod 40 is connected by a universal joint 41 with the lever arm 24.

It will be clear that while motor 32 is operating it acts through the connections described to vibrate lever arm 24 which imparts endwise reciprocatory movements to link 25 and the latter reciprocates the presser members 28—30 in a direction transversely with respect to the neck of the patient. This reciprocatory movement causes the presser members to alternately and yieldingly press laterally against the opposite sides of the front portion of the neck thereby alternately compressing and relaxing the gland structures with the object in view of stimulating and activating the same.

An alternative form of presser member 28*a* is shown in Fig. 7 comprising an apertured upper end portion or head that is fitted upon link 25 and a depending rigid arm 30*a* that is provided at its lower end with a transverse threaded aperture into which is screwed a threaded shank 42 projecting from one side of a metal disk 43. Secured to the opposite side of this disk is a resilient pad 44 of any suitable material such as rubber, for example. A check nut 45 on shank 42 holds the pad structure against accidental displacement. Two of these members 28*a* may be substituted for the members 28 and fixed in position upon link 25 by thumb screws such as that shown at 29 in Fig. 7. When properly installed the pads 44 will be disposed facing each other with the two members 28*a* spaced apart a distance appropriate to the size of the patient's neck.

A make and break switch 46 and a rheostat 47 (Fig. 1) are mounted upon the rear wall of housing 31 and arranged in series in the circuit of motor 32 to provide for starting, stopping, and regulating the speed of the motor.

It will also be clear that by shifting the wrist pin 39 (Fig. 2) from one hole 38 to another, the amplitude of the reciprocatory movements of link 25 and its presser members may be varied.

In order to provide for application of the device to and removal from the patient one of the pivot pins 26 is removed so that the link 25 with its presser members 28 may then be swung aside on the other pivot pin 26 into an out-of-the-way position.

What I claim is:

1. A thyroid massage apparatus comprising a base which serves as a head rest for the patient and is made with a pair of spaced-apart uprights between which the head of the patient

is disposed; a pair of horizontally disposed relatively parallel lever arms each of which is pivotally mounted upon one of said uprights to swing on a vertical axis; a link having its opposite ends pivotally connected to said lever arms and supported by the latter in a horizontal position transversely above the neck of the patient; a pair of spaced-apart presser members fixed in positions upon and depending from said link so that they are co-operatively disposed relatively to the opposite sides of the neck of the patient; an electric motor fixed in position upon said base; means for controlling the operation of said motor, and means through which said motor when operated acts to vibrate one of said lever arms thereby to reciprocate said link and presser members on arcuate paths.

2. A thyroid massage apparatus according to claim 1 wherein one end of said link is detachably connected with its lever arm thereby to permit said link and presser members to be swung aside on the other pivotal connection into an out-of-the-way position to provide for the admission and removal of the patient.

3. A thyroid massage apparatus constructed in accordance with claim 1 wherein neck-supporting means is provided comprising a band of flexible sheet material providing a cradle for the neck of the patient; means fastening one end of said band to one of said uprights; a take-up roll rotatably mounted upon the other upright of said pair and with which the opposite end of said band is connected so that rotative adjustment of said roll adjusts the cradle portion of the band vertically, and means for securing said roll in its adjusted position.

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