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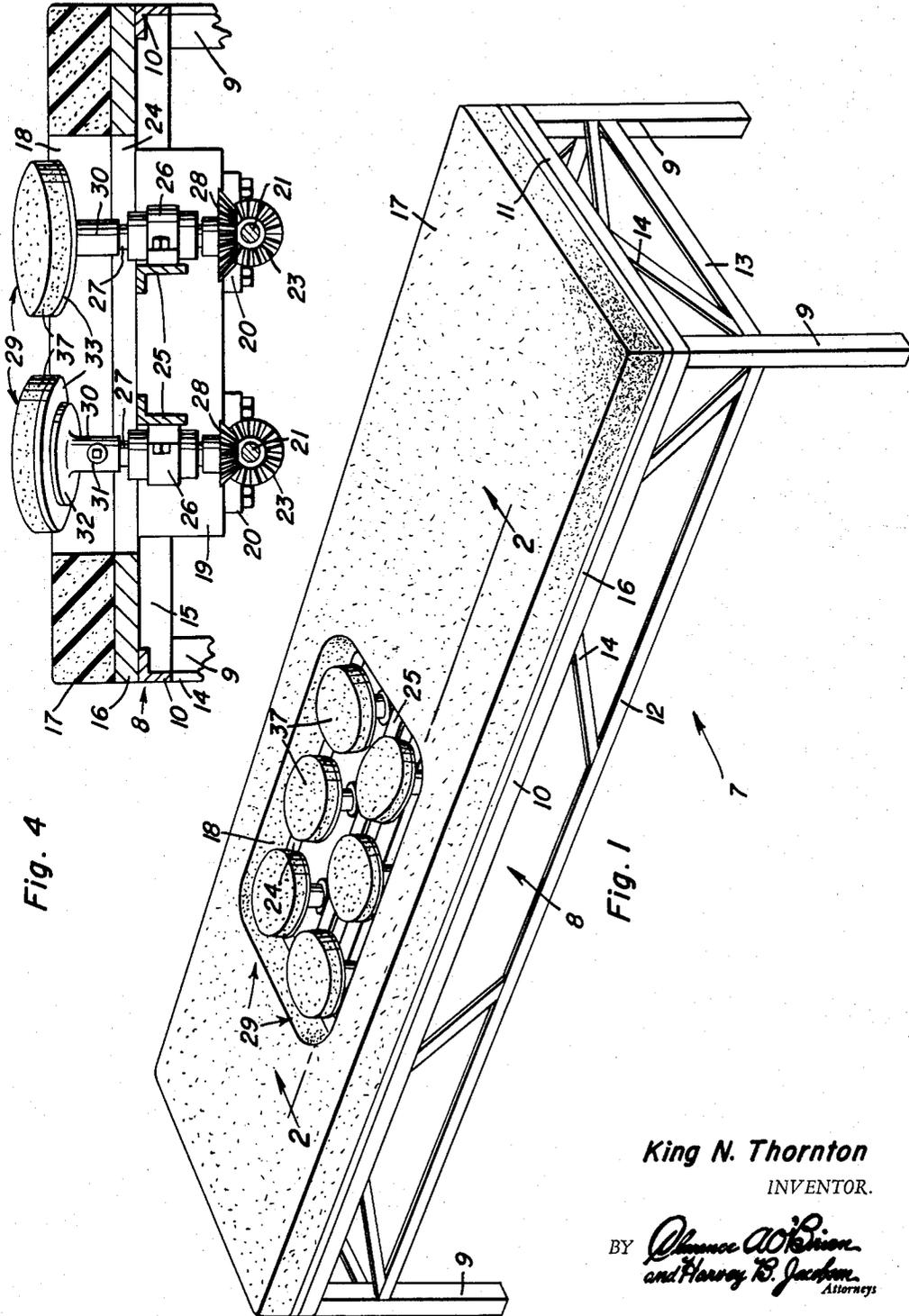
K. N. THORNTON

3,207,152

MASSAGE COUCH

Filed July 23, 1962

3 Sheets-Sheet 1



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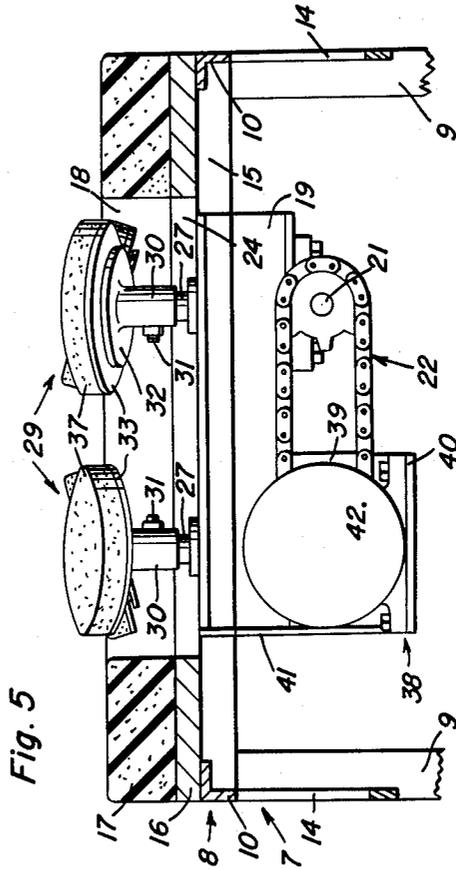
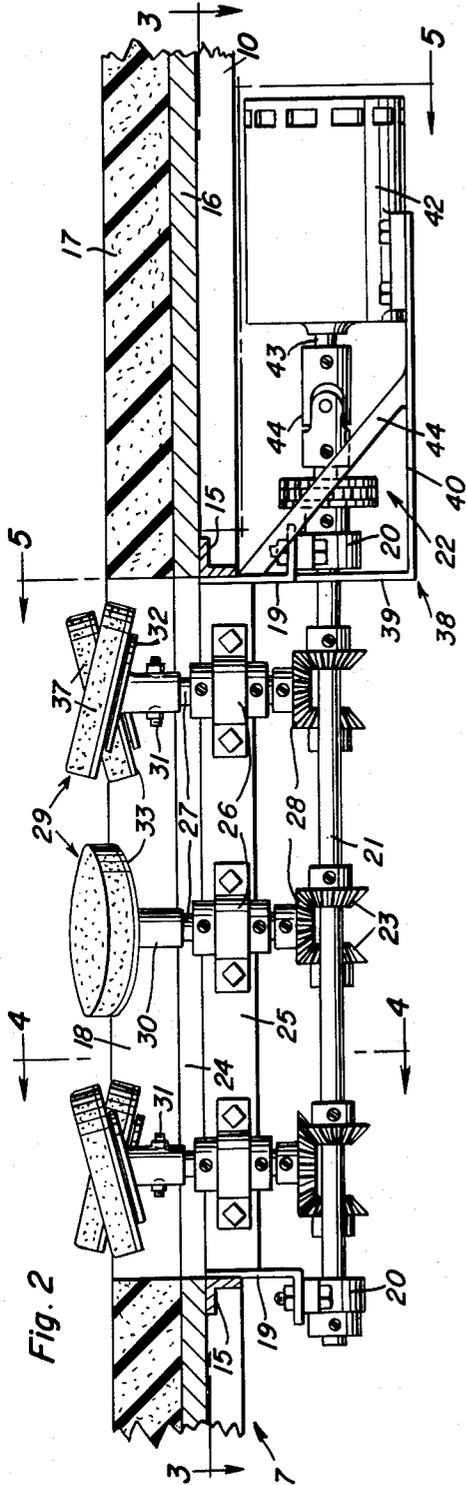
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MASSAGE COUCH

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3 Sheets-Sheet 2



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MASSAGE COUCH

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3 Sheets-Sheet 3

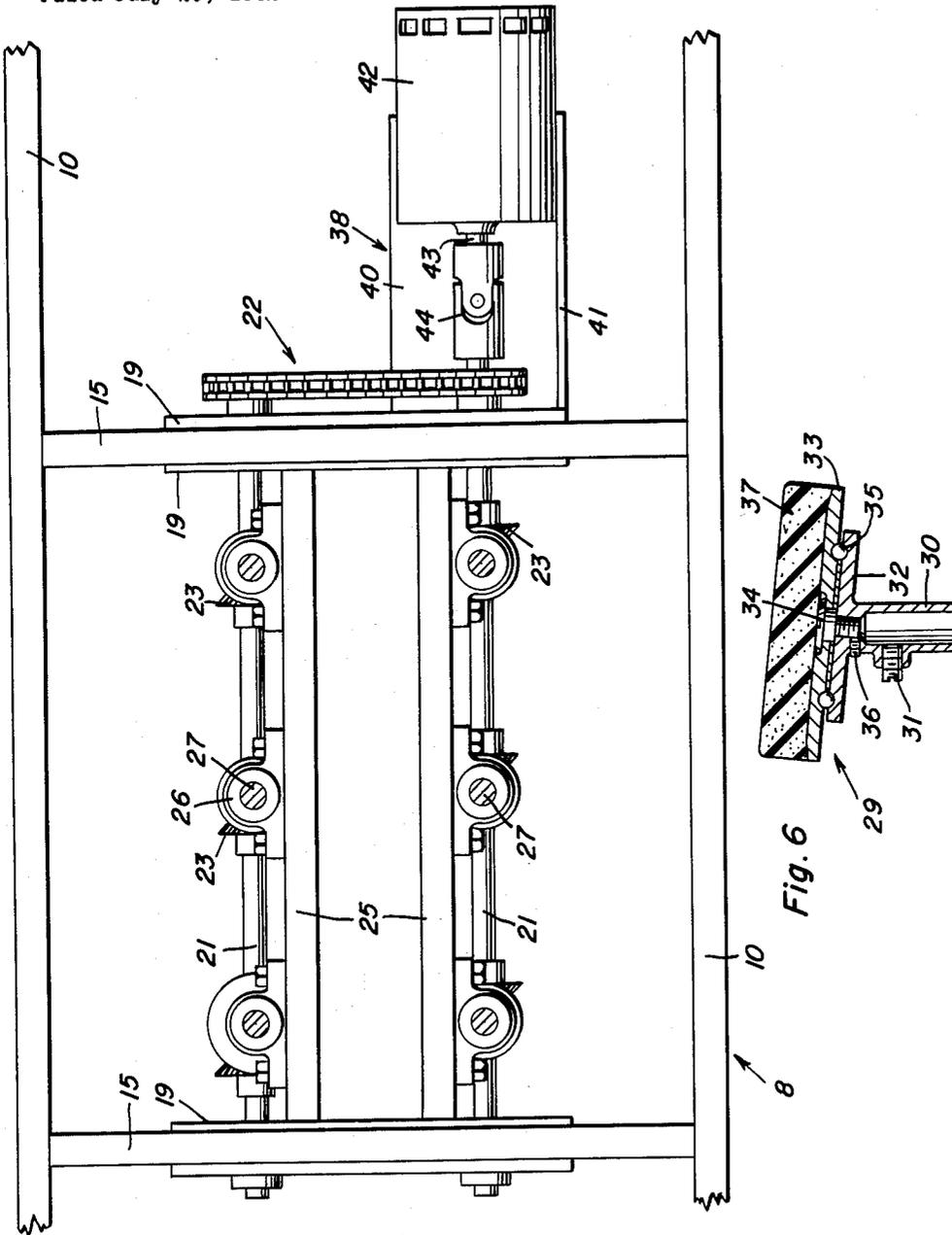


Fig. 3

Fig. 6

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MASSAGE COUCH
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 4 Claims. (Cl. 128—33)

This invention relates to new and useful improvements in massage machines of the couch or chair type particularly although by no means necessarily, for spinal treatment, and has for its primary object to provide, in a manner as hereinafter set forth, an apparatus of this character comprising a multiplicity of padded, power-driven manipulating heads having a unique wobbling but non-rotating motion, said heads being actuated in unison and so arranged that a highly beneficial frictionless, undulating kneading action is had for effecting spinal manipulation, the wobble also producing the sensory effect of a circular movement similar to the action of the hands on the body in the administration of a Swedish massage.

Another important object of the present invention is to provide an improved massage apparatus of the aforementioned character comprising novel means for driving the heads.

Still another object of the invention is to provide a massage machine of the character described wherein the treatment may be taken in a supine position for massage of the posterior or in a prone position for massage of the anterior portion of the body.

Other objects of the invention are to provide a massage couch of the character set forth which is comparatively simple in construction, strong, durable, compact, of light weight and which may be manufactured at low cost.

These together with other objects and advantages which will become subsequently apparent reside in the details of construction and operation as more fully hereinafter described and claimed, reference being had to the accompanying drawings forming a part hereof, wherein like numerals refer to like parts throughout, and in which:

FIGURE 1 is a perspective view of a massage couch constructed in accordance with the present invention;

FIGURE 2 is a fragmentary view in vertical longitudinal section on an enlarged scale through an intermediate portion of the machine, taken substantially on the line 2—2 of FIGURE 1;

FIGURE 3 is a view in horizontal section through an intermediate portion of the device, taken substantially on the line 3—3 of FIGURE 2;

FIGURE 4 is a view in transverse section, taken substantially on the line 4—4 of FIGURE 2;

FIGURE 5 is a view in transverse section, taken substantially on the line 5—5 of FIGURE 2; and

FIGURE 6 is a detail view in vertical section through one of the wobbling heads.

Referring now to the drawing in detail, it will be seen that the embodiment of the invention which has been illustrated comprises a couch of suitable metal which is designated generally by reference numeral 7. The couch 7 includes a rectangular angle iron frame 8 of suitable dimensions, said frame having depending from its corner portions supporting legs 9. The frame 8, which is horizontal, comprises longitudinal side members or bars 10 and transverse end members or bars 11. The couch 7 further includes longitudinal side and transverse end struts 12 and 13, respectively, extending between the legs 9 in spaced parallelism with and below the members 10 and 11. To rigidify the assembly, bridging 14 is provided between the frame 8 and the members 12 and 13. As shown to advantage in FIGURE 3 of the drawing, the frame 8 still further includes parallel cross members 15 which extend between the side bars 10 of said frame at longitudinally spaced points.

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The couch 7 further comprises a rectangular slab, plate or top 16 of suitable material which is mounted on the frame 8. Mounted on the top 16 of the couch 7 is a mattress or cushion 17 of foam rubber or other suitable resilient material. The portion of the cushion 17 which extends between the cross members 15 of the frame 8 has formed longitudinally therein an opening 18 the purpose of which will be presently set forth.

Affixed to the cross members 15 and depending therefrom is a pair of generally L-shaped hangers 19. Secured beneath the hangers 19 are pairs of bearings 20. The end portions of a pair of spaced, parallel, longitudinal shafts 21 are journaled in the bearings 20. A chain and sprocket drive 22 on one end thereof operatively connects the shafts 21 for rotation in unison in the same direction. Fixed at longitudinally spaced points on the shafts 21 are oppositely facing beveled gears 23.

The top 16 of the couch 7 has formed therein a rectangular opening 24 in registry with the cushion opening 18. Extending longitudinally between the hangers 19 and having their ends affixed thereto is a pair of spaced, parallel angle iron bars 25. Mounted at longitudinally spaced points on the bars 25 are vertical bearings 26. Vertical stub shafts 27 are journaled in the bearings 26. Beveled gears 28 are fixed on the lower end portions of the shafts 27 and are meshed with the gears 23.

Removably and rotatably adjustably mounted on the upper end portions of the shafts 27 are wobbling kneading heads 29. The heads 29 include inverted sockets or caps 30 which are secured on the shafts 27 by setscrews 31. Formed integrally with the upper ends of the sockets 30 are inclined disks 32. Circular plates or disks 33 are rotatably secured by pivot screws 34 on the disks 32 with ball bearings 35 therebetween, setscrews 36 being provided for locking said pivot bolts in position. Affixed to the circular plates or disks 33 are circular pads 37 of foam rubber or other suitable material.

Affixed as by welding to one of the hangers 19 is an angular bracket 38 of suitable metal comprising vertical and horizontal legs 39 and 40, respectively, having a brace 41 extending therebetween. Mounted on the lower horizontal portion or leg 40 of the bracket 38 is a suitable electric motor 42. The shaft 43 of the electric motor 42 is aligned with one of the shafts 21 and operatively connected thereto by a flexible coupling or universal joint 44. Thus, the motor 42 is operatively connected to the heads 29.

It is thought that the operation of the machine will be readily apparent from a consideration of the foregoing. Briefly, the openings 18 and 24 in the cushion 17 and couch top 16, respectively, accommodate the heads 29. As shown to advantage in FIGURE 4 of the drawing, the heads 29 are operable in the upper portion of the cushion opening 18 and rise somewhat above the upper surface of said cushion. It also will be noted that the construction and arrangement of the drive mechanism is such that the longitudinal rows or series of heads 29 rotate in opposite directions. The heads 29 are rotatably adjusted on their respective shafts 27 to the positions shown relatively to each other and secured by the setscrews 31. The user or patient to be treated lies on the mattress or cushion 17 in a manner to traverse the openings 18 and 24 thus contacting the heads 29 with the back or other portion of the body. For spinal treatment the patient lies on the back with the spine extending between the rows of heads 29. When the electric motor 42 is energized the disks 32 on the sockets 30 rotate with the vertical shafts 27 thus imparting a wobbling action to the kneading pads 37 on the circular plates or disks 33. As also shown to advantage in FIGURE 4 of the drawing, the adjacent gears 28 are of different sizes whereby the corresponding wobble heads 29 will be actuated at different speeds for

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more closely producing the action of a pair of hands while giving a Swedish massage. However, body contact frictionally retains the units 33, 37 against rotation. If desired, the machine of the present invention may be incorporated in a reclining chair.

The foregoing is considered as illustrative only of the principles of the invention. Further, since numerous modifications and changes will readily occur to those skilled in the art, it is not desired to limit the invention to the exact construction and operation shown and described, and accordingly all suitable modifications and equivalents may be resorted to, falling within the scope of the invention as claimed.

What is claimed is new is as follows:

1. A massage machine comprising a couch including 15
an elongated horizontal frame and a cushion mounted thereon, said cushion having an opening therein, spaced parallel bars mounted longitudinally on the frame beneath the opening, series of vertical shafts journaled at longitudinally spaced points on the bars and operable in the 20
opening, means for actuating the shafts, and wobble heads mounted at an inclination on the upper ends of the shafts for operable engagement with an occupant of the cushion.

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2. The combination of claim 1, said wobble heads being rotatable on said shafts.

3. The combination of claim 2, wherein said shaft actuating means includes means for rotating the series 5
of shafts in unison but in opposite directions.

4. The combination of claim 3, said shaft rotating means including a pair of parallel drive shafts on the frame, oppositely facing series of beveled gears fixed on said drive shafts, beveled gears on the lower end portions 10
of the vertical shafts meshed with the first-named gears, and means connecting the drive shafts for rotation in the same direction.

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