Aug. 16, 1938. E. R. MONROE 2,127,132

OSTEOPATHIC MACHINE

Filed Aug. 17, 1936 2 Sheets-Sheet 1

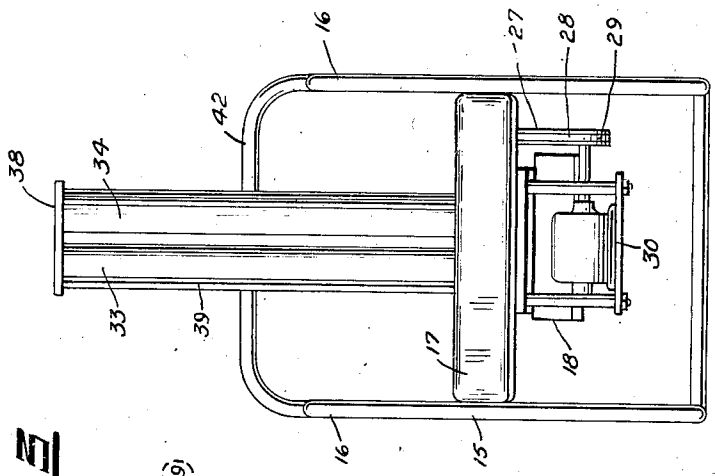



Fig. 2

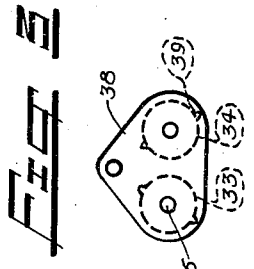



Fig. 3

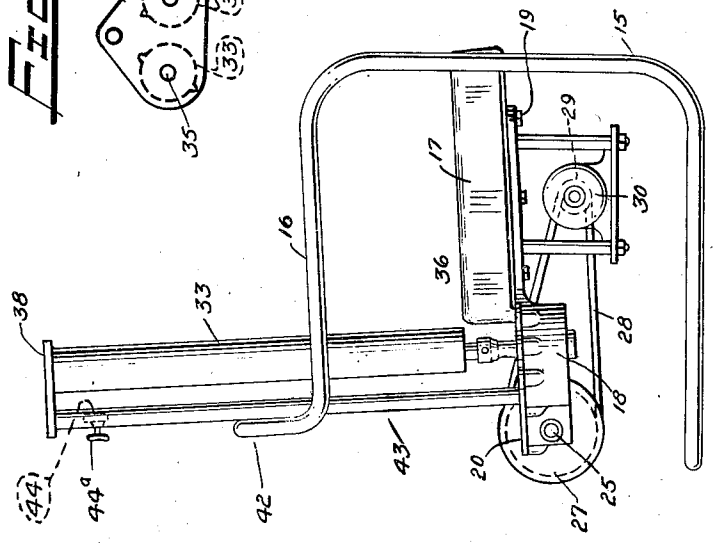



Fig. 1

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OSTEOPATHIC MACHINE

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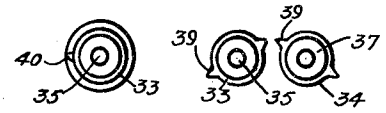



Fig 9 Fig 7

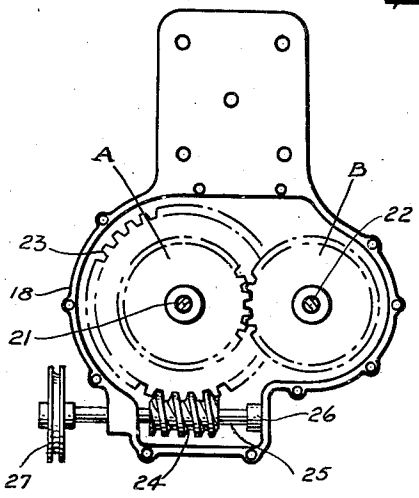



Fig 5

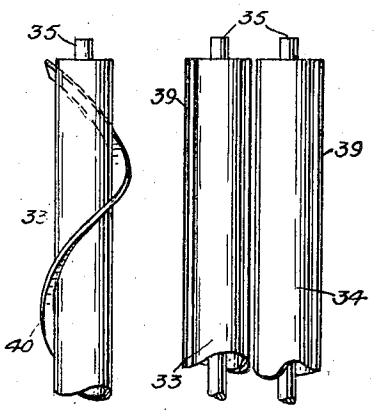



Fig 8 Fig 6

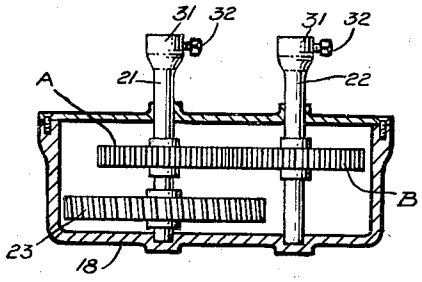



Fig 4

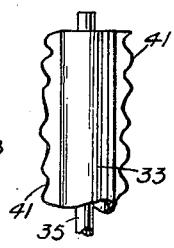



Fig 10

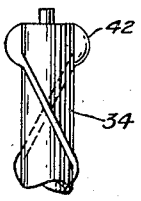



Fig 11

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2,127,132

# UNITED STATES PATENT OFFICE

2,127,132

## OSTEOPATHIC MACHINE

Edward R. Monroe, Black River, Mich., assignor, by direct and mesne assignments, to Osteo Vitalizer Company, Chicago, Ill.

Application August 17, 1936, Serial No. 96,379

7 Claims. (Cl. 128—57)

This invention relates to osetopathic machines and more especially to a power driven machine designed to be placed in a practitioner's office for the treatment of patients in general.

One of the prime objects of the invention is to design an osteopathic machine, provided with spaced apart, kneading rolls or knuckles, so arranged that the patient is treated when seated in the chair on which the apparatus is mounted.

Another object is to design an osteopathic apparatus, the chair frame of which is slightly resilient, so that contact of the kneading knuckles, rolls, or wings, will be cushioned either by the flexibility of the frame and/or by a slight rolling movement of the patient's body.

A further object is to provide a very simple, practical and economical apparatus which can be readily manufactured and assembled, which comprises but few parts, all of substantial construction, and which is so designed that the kneading mechanism can be easily and quickly removed and/or replaced.

A still further object is to design an apparatus which is of neat and pleasing appearance, which is efficient in operation and which thoroughly massages and/or kneads the neck and back of the patient.

With the above and other objects in view, the present invention consists in the combination and arrangement of parts, hereinafter more fully described, illustrated in the accompanying drawings, and more particularly pointed out in the appended claims, it being understood that changes may be made in the form, size, proportion and minor details of construction, without departing from the spirit or sacrificing any of the advantages of the invention.

In the drawings:

Fig. 1 is a side elevational view of my osteopathic apparatus.

Fig. 2 is a front elevational view.

Fig. 3 is a detail plan showing the upper bearing assembly.

Fig. 4 is an enlarged vertical sectional view through the gear case.

Fig. 5 is a top plan view with the cover removed.

Fig. 6 is an enlarged fragmentary front view of the kneading rolls.

Fig. 7 is a top plan view thereof.

Fig. 8 is a fragmentary view showing a roll having a spiral rib.

Fig. 9 is a top plan view thereof.

Fig. 10 is a fragmentary view showing an alternate roll construction, the knobs or projections serving as knuckles.

Fig. 11 is also an alternate view of a roll with special wings for massaging the neck.

Referring now particularly to the drawings in which I have shown one embodiment of my invention, the numeral 15 indicates the frame of the chair, this is preferably formed of tubing and is provided with arms 16 as usual, and the tubing is so formed that no rear legs are required, thus providing for a certain degree of resiliency when a person is seated in the chair, a seat 17 being hung in said frame in any desired manner.

The osteopathic apparatus proper includes a gear case 18 which is secured to the under side of the seat by means of bolts 19, this gear box being formed as clearly shown in Figs. 4 and 5 of the drawings, and a cover plate 20 forms a closure for the upper end so that grease or other lubricant is retained therein.

Spaced apart, vertically disposed shafts 21 and 22 respectively are journaled in this case and a worm wheel 23 is mounted on the shaft 21, said worm wheel meshing with and being driven by a worm 24 which is mounted on the horizontally disposed shaft 25, this shaft being in turn journaled in suitable bearings 26 provided in the case. A sheave 27 is also mounted on the shaft 25, and a belt 28 serves to gear said sheave to a similar sheave 29 which is provided on the motor 30, said motor being connected to any suitable source of electrical power. Gears A and B are provided on the shafts 21 and 22 so that the shafts are simultaneously driven and identically similar sockets 31 and set screws 32 are provided as shown and for a purpose to be presently described.

The kneading rolls 33 and 34 respectively are formed as clearly shown in Figs. 6 and 7 of the drawings, each roll being hollow and identically similar, shafts 35 extend therethrough, the ends of the shafts being slotted as at 36 to engage the set screws 32 so that the kneading rolls may be properly set with relation to each other, discs 37 forming a closure for the ends of the rolls, the upper ends of said shafts projecting slightly beyond the discs and are journaled in a bearing plate 38 as shown, the lower ends of these shafts being mounted in the sockets 31 and the set screws 32 serve to rigidly secure them in position, and permitting quick and easy removal when desired for changing rolls, repairs, or for any other purpose.

Raised kneading ribs 39 are provided on each

roll, and engage the patent's back on opposite sides of the spinal column as the apparatus is driven, and these ribs can be of any desired shape and/or design. In Figs. 8 and 9 I have shown a spirally formed rib **40** which I find operates in a very satisfactory manner, and in Fig. 10 I have shown rounded projections or knobs **41** which are similar to a man's knuckles, and in Fig. 11 I have shown projections **42** which are designed to engage and massage the patient's neck when treatment is being given, these projections **42**, projecting beyond the face of the ribs formed on the remainder of the rolls, and this is due to the fact that the spinal column is slightly curved at the point where there would be contact with the patient's neck, and consequently, the projections must extend further in order to engage.

A vertically disposed rod **43** projects from the gear case to the bearing plate **38** and serves to reinforce the roll assembly and prevent its turning, said rod being welded or otherwise secured to the back frame member **42** which forms a part of the chair, the upper end of the rod **43** being turned as at **44** and is inserted in the rod **43** so that a quickly detachable connection is provided, a set screw **44***a* holding it in position.

A control switch (not shown) is provided on one of the arms of the chair and in close proximity to the patient's hands so that the motor is easily controlled by the patient in the chair.

In practise, the patient dressed only in light undergarment, sits in the chair with his or her back directly against the kneading rolls **33** and **34**, the motor is then energized, the rolls are then driven so that the ribs **39** contact with the back on either side of the spinal column, the action being such that the rub or pressure is away from the spinal column, these ribs are smoothly rounded and the resiliency of the chair frame provides for a smooth, even kneading action, which forces the blood to the various organs of the body.

The kneading can be as strenuous as desired and is controlled by the patient who exerts as much pressure as desired against the rolls.

The guard (not shown) is provided around the kneading rolls to eliminate the danger of injury to hands or fingers or the catching of clothing when the apparatus is in operation.

From the foregoing description it will be obvious that I have perfected a very simple, practical and economical osteopathic machine for treating use by osteopaths and physicians in general.

What I claim is:

1. In a machine of the character described and comprising a chair including a seat, centrally disposed, vertical, detachable kneading rolls mounted on and forming the back of the chair said rolls extending from the seat to the top of the machine and engaging the back of the person being treated, and means for driving said rolls.

2. In an osteopathic machine of the character described comprising a chair, having a seat a pair of vertical, spaced apart, kneading rolls directly adjacent the back of the seat and extending from the seat to the top of the machine, said rolls forming the back of said chair, projections formed on said rolls, and means mounted on said seat for driving said kneading rolls.

3. In an osteopathic machine of the character described comprising a chair including a seat, a pair of centrally disposed, vertical, kneading rolls mounted on said chair and extending from the seat to the top of the machine, said rolls being formed with projecting ribs extending the entire length of the rolls and adapted to knead a patient's back, means for driving said rolls, and means for detaching said rolls.

4. An osteopathic apparatus of the character described and comprising a chair having a resiliently mounted back frame and seat, a pair of centrally disposed, vertical, kneading rolls mounted on said seat and in position to engage the back of the patient, said rolls extending from the seat to the upper end of the machine, means projecting from the face of said rolls for kneading the patient's back, and means for driving said rolls.

5. An osteopathic machine of the character described and including a chair having a resiliently mounted back and seat frame, a pair of vertically disposed, kneading rolls mounted thereon in the center of the back frame and in spaced apart relation said rolls extending from the seat to the upper end of the machine for engaging a patient's back on either side of the spinal column, projections on the face of said rolls, and means for driving said rolls.

6. An osteopathic machine of the character described and including a chair having a resiliently mounted back and seat frame, a pair of vertically disposed, kneading rolls mounted thereon and in position to engage a patient's back on either side of the spinal column, a gear box mounted on the chair seat frame and in which the lower ends of the shafts are journaled, gears on said shafts, and driving means connected to said shafts for acuating said driving rolls.

7. An osteopathic machine of the class described and including a chair having a resiliently mounted back and seat frame, a vertically disposed, kneading assembly mounted on the seat frame and adapted to engage a patient's back on either side of the spinal column, a gear box, gears mounted therein and connecting the rolls in driving relation, means for detaching said rolls, and a motor mounted on the seat frame for driving said roll assembly.

EDWARD R. MONROE.