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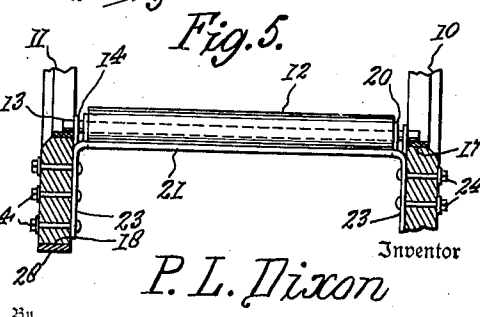
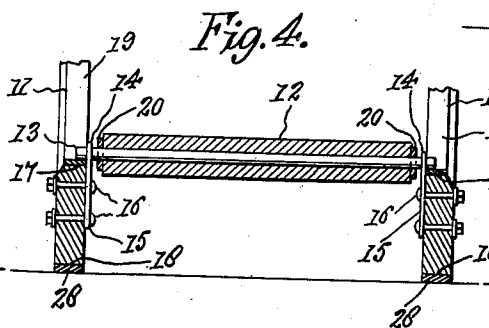
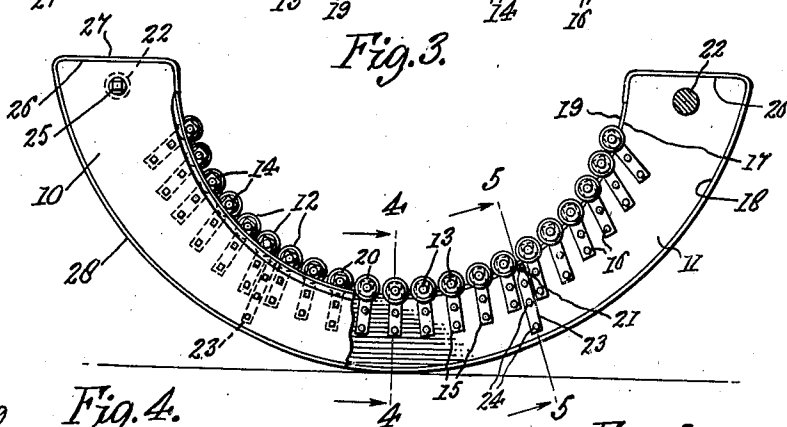
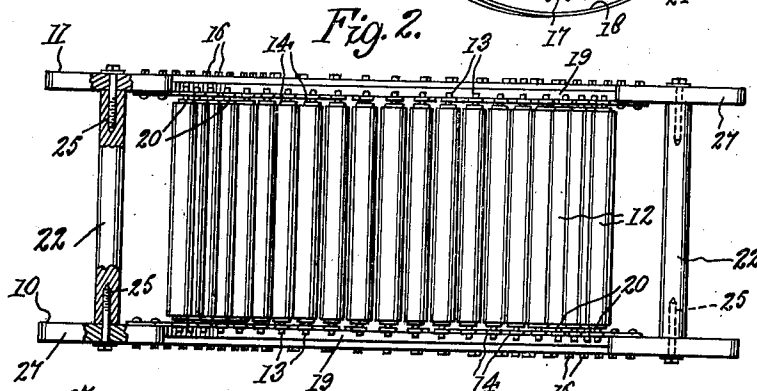
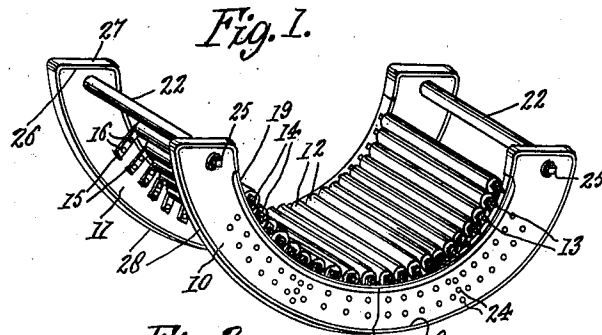
P. L. DIXON

2,219,624

EXERCISING MACHINE

Filed Dec. 5, 1939

2 Sheets-Sheet 1



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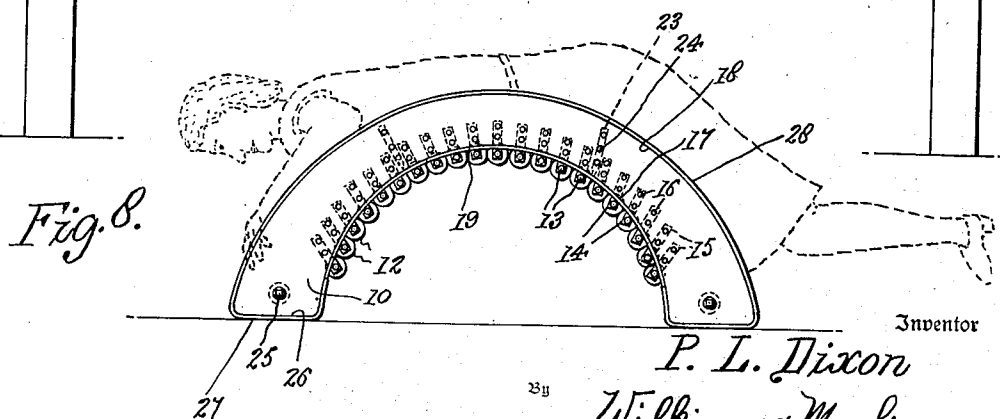
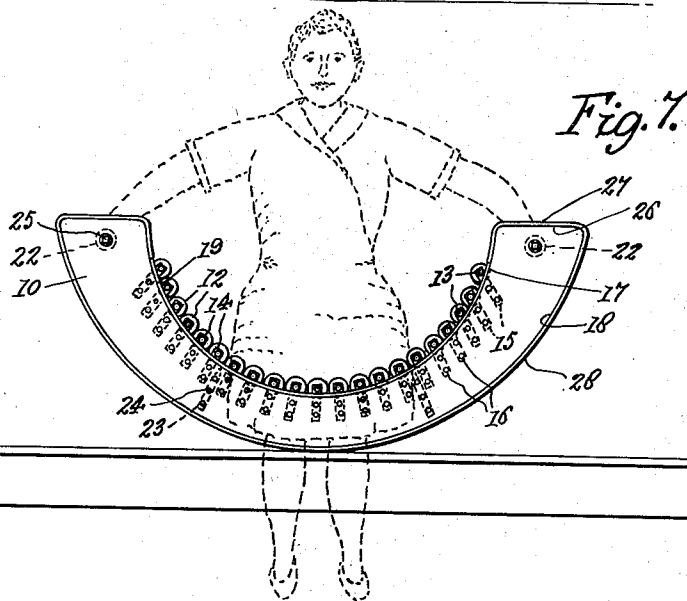
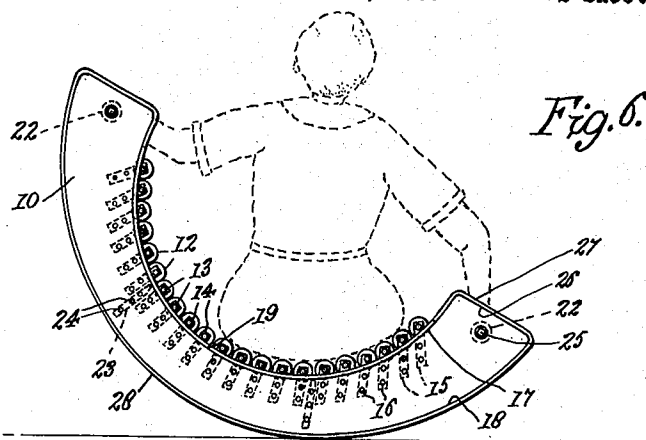
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EXERCISING MACHINE

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2 Sheets-Sheet 2



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## UNITED STATES PATENT OFFICE

2,219,624

## EXERCISING MACHINE

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Application December 5, 1939, Serial No. 307,702

11 Claims. (Cl. 272—57)

The present invention relates to improvements in exercising machines and has for an object to provide an improved machine for massaging the human body to reduce and eliminate corpulency and fatty tissues as well as to promote healthy muscular development.

Another object of the invention resides in providing an improved machine in which a mechanical massage is afforded for maintaining local areas and the figure generally youthful and of good form.

A further object of the invention is to provide an improved exercising machine in which recreational features of the machine divert the mind from the work characteristic and thus promote freer use of the machine with a greater percentage of its advantages in health and well being.

A still further object of the invention is to provide an improved exercising machine which is convertible to upright and inverted positions, in one of which positions the machine being adapted to rock back and forth with facilities for manually rocking the same by the person using the machine and with physical characteristics of the rockers which will also tend to automatically, as by momentum, continue the rocking operation, once it is started.

With the foregoing and other objects in view, the invention will be more fully described hereinafter, and will be more particularly pointed out in the claims appended hereto.

In the drawings, wherein like symbols refer to like or corresponding parts throughout the several views,

Figure 1 is a perspective view of an improved exercising machine constructed according to the present invention.

Figure 2 is a top plan view of the same, with parts broken away and parts shown in section.

Figure 3 is a side elevation of the machine with parts broken away and parts shown in section.

Figure 4 is a transverse section taken on the line 4—4 in Figure 3.

Figure 5 is a similar view taken on the line 5—5, also in Figure 3.

Figure 6 is a side elevation of the machine showing one position and method of its use.

Figure 7 is a similar view with the machine supported on an elevated surface showing another position and manner of its use, and

Figure 8 is also a side elevation of the ma-

chine in an upright non-rocking position showing a third position and manner of use.

Referring more particularly to the drawings the machine is composed of two side members or rockers 10 and 11 made of any appropriate material and carrying in any desired manner a series or set of rollers 12.

In the drawings, which show only one form or embodiment of the invention, the rollers 12 are shown to be made of wood of about an inch or an inch and a half in diameter and being highly polished or varnished and having trunnions 13 extending out from the ends thereof to be received into the perforated bearing ends 14 of brackets 15 bolted or otherwise secured to the rocker members 10 and 11 as indicated at 16.

The brackets 15 may lie along the inside surfaces of the rocker members 10 and 11 but the perforated bearing ends 14 desirably project inwardly of the inner circles 17 of the rocker members to expose the surfaces of the rollers 12 on an inside arc so that a person may sit upon such inside concave arc in the manner indicated in Figures 6 and 7 without interference from the inner rocker edges 17.

Such inner rocker edges are preferably not concentric with the outer rocker edges 18. The inner circle 17 is struck from one center while the outer circle 18 is struck from a different center.

Looking at Figure 3 the center from which the outer circle 18 is struck will be higher than the center from which the inner circle 17 is struck thus causing the rockers to be wider or deeper at their upper free ends than they are at their central portions. This gives a rather sharp roundness to the intermediate curvilinear portions of the outer circle 18 and flattened arcs at the outer portions of the rockers.

Metallic or other wear strips 19 preferably face the inner circles 17 adjacent the rotating trunnions 13 to protect the adjacent portions of the rockers from the destructive action of the rotating trunnions 13. Washers 20 may be placed on the trunnions 13 between the brackets 15 and the ends of rollers 12 to protect the rollers from wear and to facilitate general ease in rotation.

As shown more particularly in Figure 5, braces 21 may extend across between the rockers 10 and 11 at suitable spaced points although the hand-grips 22 may possibly be sufficient to this purpose. The braces 21 may be of metal or other appropriate material preferably being so rounded and so diminished cross-sectionally, indicated in Figure 3, to fit unobtrusively into the bights be-

tween adjoining rollers 12 and well within the circle which is circumscribed by the outer peripheries of the rollers 12; whereby a person in the attitude shown in Figure 8, and rolling back and forth over the convex arc of the rollers will not appreciably notice the presence of the braces 21.

As shown in Figure 5, the braces have arms 23 extending at substantially right angles radially outward therefrom and lie along the inside faces of the rockers to which such arms are attached as by the bolts 24 or other appropriate fastenings. The handgrips 22 may be of any suitable material and are connected across between the rockers 10 and 11 near the outer ends thereof. These hand-grips 22 are fastened in any suitable manner as for instance by the bolts or screws 25 shown in Figure 2.

It will be noted that the wide free end portions of the rockers 10 and 11 are all struck off flat and parallel with one another to provide the feet 26 on which the device immovably rests when in the upright position shown in Figure 8. These feet are preferably covered with pads 27 and the outer surfaces 18 of the rockers are preferably lined with a facing 28 of rubber, canvas or a composition of the two or some other appropriate facing material which will avoid marring of the floor, table tops or of the furniture generally, and which will also minimize noise in the operation of the machine and thus avoid its being a nuisance to other dwellers in the same household.

It will be noted that the hand-grips or hand-holds 22 are spaced slightly away from the feet 26 in order, at all times, to elevate these hand-grips above the floor or supporting surface, as indicated in Figure 8, so that the fingers may pass freely under the hand-holds when it is desired to lift the machine from the position shown in Figure 8, as by inverting it to the position shown in Figures 6 and 7.

The hand-grips or hand-holds 22 form spacing members, as shown in Figure 2, for maintaining the rockers 10 and 11 the requisite distance apart. By removing the screws 25 and the bolts 24 the rockers 10 and 11 could be moved apart and the rollers 12 separated therefrom for the purpose of dismantling the machine for shipment and the like or for replacing worn or broken rollers.

It will be noted that the wooden or other rollers 12 are carried by the rockers and that they turn independently of each other.

In the use of the device for reducing the hips and thighs by mechanical massage of the rollers, the machine is set up either upon the floor, as indicated in Figure 6, or upon an elevated surface, as upon a table top indicated in Figure 7. The hand-grips 22 are taken one in each hand. The occupant should sit well back in the machine with feet raised above the floor and rock back and forth over the entire set of rollers by pulling on the hand-grips 22. Momentum is quickly gathered and the rolling motion is maintained easily due to the arrangement of the inner and outer circles 17 and 18.

The rocker tends to continue rocking once it is started due to the long outside circle 18 and the shorter off-center inside circle 17. Due to the long outside circle 18 the machine will not roll over, for instance like a hoop or wheel, but it reverses its motion. In other words the rockers oscillate freely and have a tendency to reverse their motion when rolled to one end. Therefore a person sitting in this machine can easily roll from one extreme to the other in an upright

position with very little effort and receive the maximum massage.

As a matter of fact the machine may be propelled back and forth substantially beneath the person sitting therein who may continue to occupy substantially the same vertical position, the rollers 12 rolling back and forth under the hips and thighs and thus subjecting these areas to a roller mechanical massage in constantly recurring opposite sequence; or the person may slide up and down the rising and falling curvilinear walls of the roller set for the purpose of creating a relative movement of the hips and thighs over the rollers. When a person is seated in the machine and has begun to rock, momentum carries the load up right and left inclines and gravity returns it to the center of rocker. This might be likened to a pendulum motion.

As shown in Figure 7, the machine may be used on a bench or table allowing the feet to hang down. In addition to the vibrating massage of thighs and hips there is a decided exercising of the muscles of the abdomen and arms in the rocking process, but as it is easy to do it simulates play or recreation rather than work, and for this reason will be particularly appealing to those having need of its reducing characteristic.

Referring more particularly to Figure 8, the machine may be placed in an upright position and the body drawn back and forth over the outer arc of the rollers 12, thus affording active massage of the abdomen.

When used in the manner set forth in Figures 6 and 7 the rollers move under the body rather than the body over the rollers, so that there is no swinging or rocking motion of the body which sometimes causes giddiness or stomach sickness. This condition is sometimes brought on by rolling on the floor, an exercise that is recommended by some authorities. Therefore an unique cooperation between the rollers and the rockers is that the rocking motion of the rockers enables the rollers to be translated back and forth under a substantially immovable occupant or subject, the rollers during the movement of translation also rotating about their individual axes to produce the massaging action upon the occupant or subject without requiring any movement of the occupant or subject.

It is obvious that various changes and modifications may be made in the details of construction and design of the above specifically described embodiment of this invention without departing from the spirit thereof, such changes and modifications being restricted only by the scope of the following claims:

What is claimed is:

1. In an improved exercising machine, rockers, a set of rollers carried by said rockers and positioned above the rockers to receive an occupant in the concave arc of the rockers and the rollers carried thereby, and hand-holds or hand-grips on the rockers moving with the rockers for oscillating the rockers and the rollers.

2. In an improved exercising machine, rockers having inner and outer circles struck from different centers, a curvilinear set of rollers on the rockers and extending inwardly of the inner circle to form a concave seat for an occupant, and means on the rockers for causing the rockers to oscillate.

3. In an improved exercising machine, rockers having inner and outer circles struck on different centers with the rockers deeper at the free ends

thereof and narrower in the central parts, hand-grips connected between the rockers at their outer deeper ends, and a set of independently rotatable rollers carried by the rockers in a curvilinear arrangement with their concave peripheries set inwardly of the inner circle whereby to receive an occupant in sitting posture with hands engaging said hand-grips.

4. In an improved exercising machine, rockers, means for holding said rockers in spaced apart relation, a curvilinear set of independently rotatable rollers carried by said rockers with the concave arc of the rollers lying inwardly of the innermost portions of the rockers to receive an occupant in a sitting posture, and feet on said rockers for holding the rockers in an upright position to receive on the convex arc of said rollers an occupant confined by the rockers, said rockers affording hand-holds for the occupant to propel such occupant back and forth over the convex arc of the rollers.

5. In an improved exercising machine, rockers, brackets carried thereby having bearings, rollers having trunnions loosely received in said bearings, and means for holding said rockers in a predetermined spaced condition to hold the bearings upon such trunnions and permitting of the bearings being separated from the trunnions when such means is dismantled.

6. In an improved exercising machine, rockers, rollers carried by said rockers, and braces secured to said rockers and extending across in substantial parallelism with the rollers and of a size and cross-sectional dimension to lie substantially within the confines of the bight between adjacent rollers.

7. In an improved exercising machine, rockers having inner and outer circles struck upon different centers with the outer circles more round centrally with flattened outer edges, said rockers having substantially flat parallel feet for resting upon a supporting surface in a non-rocking upright position, brackets secured to said rockers and lying substantially coincident with radii of either circle, said brackets having perforated bearings projecting inwardly of the inner circle, a curvilinear set of independently rotatable rollers each having trunnions freely fitted in said bear-

ings, braces secured to the inner portions of said rocker and extending across with said rollers on the convex arc sides of the rollers, said braces being of a size and cross-sectional dimension to fit within the bights of adjacent rollers, hand-grips near but spaced from said feet and positioned between the rockers for spacing the same apart, and means for detachably connecting said hand-grips to the rockers.

8. An improved exercising machine comprising a rocking support having an upper concavity, a plurality of rollers carried by said rocking support, said rollers projecting upwardly into said concavity for freely receiving a person in a sitting posture, said rollers being arranged substantially arcuately for movement back and forth beneath the body of the person seated on the rollers while the body remains substantially erect.

9. An improved exercising machine comprising a rocking support having an upper concavity, a plurality of rollers carried by said rocking support, said rollers projecting upwardly into said concavity for freely receiving a person in a sitting posture, said rollers being arranged substantially arcuately for movement back and forth beneath the body of the person seated on the rollers while the body remains substantially erect, and hand holds on the end portions of said support for receiving both hands of the occupant adapted to enable the occupant to rock the support beneath such occupant.

10. An improved exercising machine comprising an invertible rocking support having feet for maintaining said support from rocking when upright, and a substantially arcuate row of rollers carried by said support and presenting at opposite sides of the support convex and concave rolling surfaces.

11. An improved exercising machine comprising an invertible rocking support having feet for maintaining said support from rocking when upright, a substantially arcuate row of rollers carried by said support and presenting at opposite sides of the support convex and concave rolling surfaces, and hand holds on the end portions of the rocking support.

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