

Dec. 19, 1950

P. BURNETT ET AL
FOOT MASSAGE APPARATUS

2,534,412

Filed June 28, 1948

2 Sheets-Sheet 1

FIG. 1.

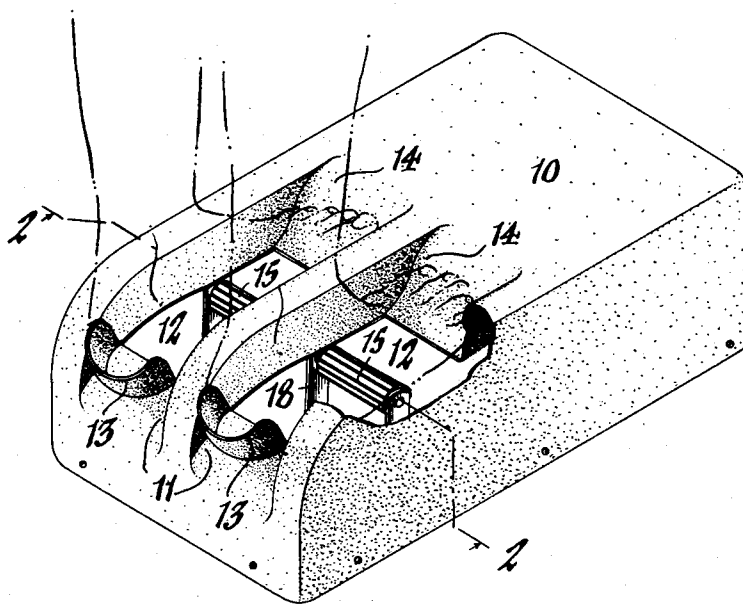
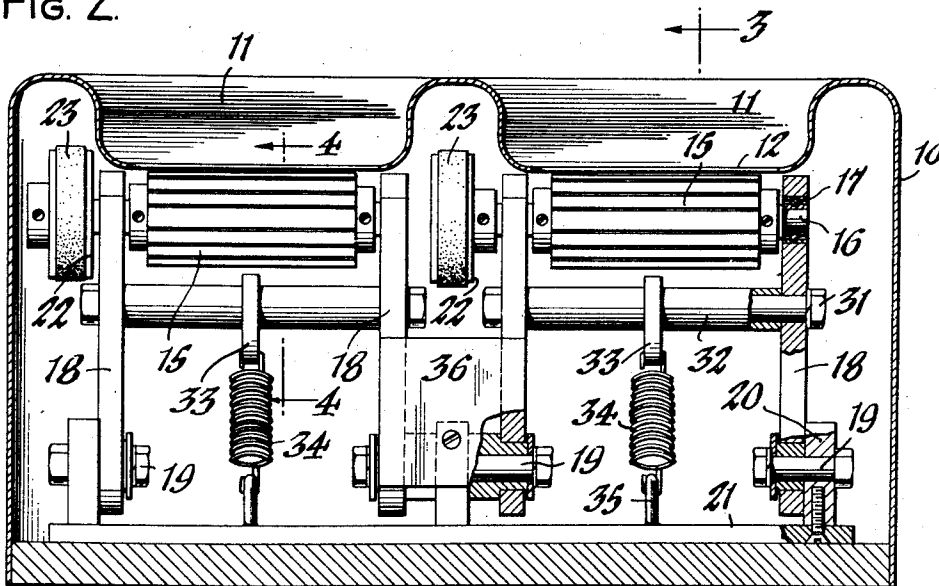


FIG. 2.



← 3

INVENTORS

Otto C. Buike

Peter Burnett

By Walter P. Luper

ATTORNEY.

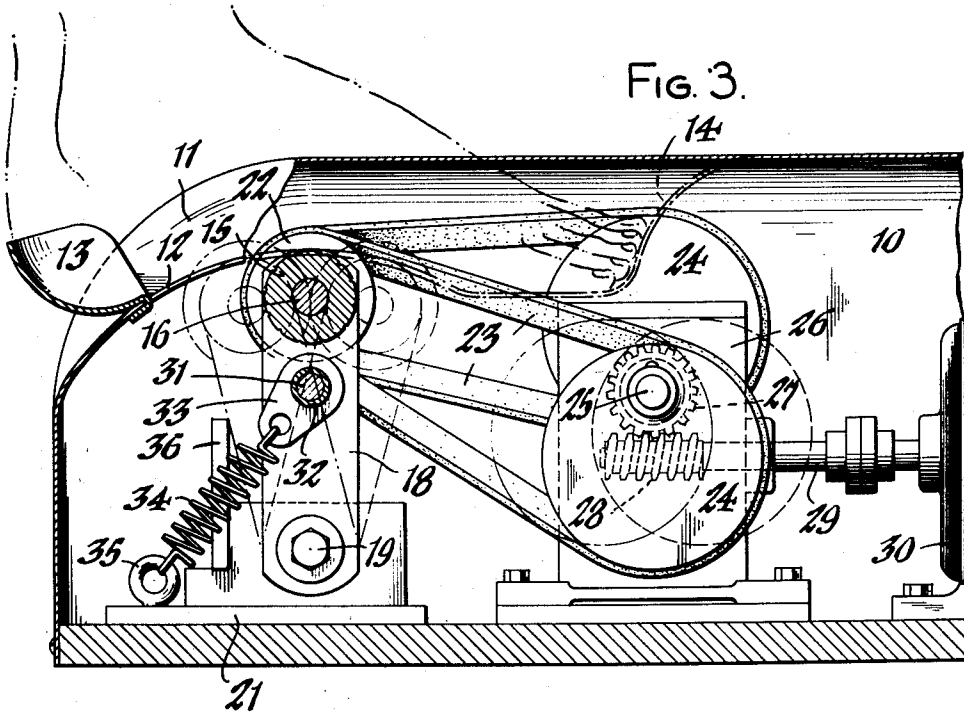
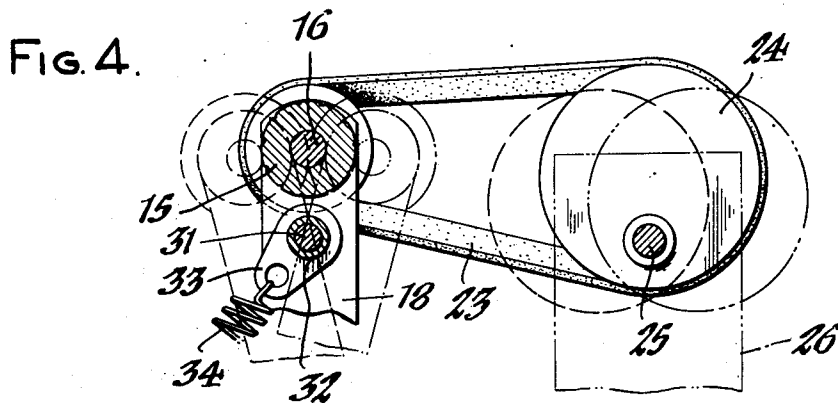
Dec. 19, 1950

P. BURNETT ET AL
FOOT MASSAGE APPARATUS

2,534,412

Filed June 28, 1948

2 Sheets-Sheet 2



INVENTORS,
Otto C. Baiker,
Peter Burnett
BY *Walter P. Geyer*
ATTORNEY.

UNITED STATES PATENT OFFICE

2,534,412

FOOT MASSAGE APPARATUS

Peter Burnett and Otto C. Buike,
Tonawanda, N. Y.

Application June 28, 1948, Serial No. 35,706

6 Claims. (Cl. 128—25)

1

This invention relates to a foot massage apparatus and more particularly to a motor driven apparatus adapted for home or professional use.

It has for one of its objects to provide an apparatus of this character which is so designed and constructed as to effectually massage one's feet and stimulate circulation therein and wherein the frictional pressure is directly controlled by the patient himself to produce the massaging action desired.

Another object of the invention is to provide a motor-driven massaging apparatus which combines both a rolling and reciprocating motion-contact with the bottoms of the feet to exert a massaging action thereon and strengthen the muscles and arches of the feet.

A still further object is to provide a massaging apparatus which is simple, compact and inexpensive in construction, which is positive and reliable in operation, and which affords a treatment as determined by the desire of the patient.

Other features of the invention reside in the construction and arrangement of parts herein-after described and particularly pointed out in the appended claims.

In the accompanying drawings—

Figure 1 is a perspective view, partly broken away, of the massaging apparatus embodying our invention. Figure 2 is an enlarged cross section thereof taken on line 2—2, Figure 1. Figure 3 is a vertical section taken on line 3—3, Figure 2. Figure 4 is a fragmentary sectional view taken on line 4—4, Figure 2.

Similar characters of reference indicate corresponding parts throughout the several views.

In the preferred embodiment of the invention shown in the drawings, our massaging apparatus comprises a suitable casing 10 in which the operating mechanism is housed, the same being provided in its top side adjacent the front end thereof with longitudinal recessed portions 11, 11 disposed side by side to receive the patient's feet for proper positioning during a massaging treatment. The bottoms of these recessed portions have openings 12 therein to expose the bottoms of the feet for treatment while rests 13 are provided to properly receive the heels of the patient's feet and the front ends of the recessed portions are shaped, as indicated at 14, to support the toes. By this arrangement, the patient sits comfortably in a chair with the bottoms of his feet bridging or spanning the openings 12 while the heels and toes are firmly supported on their companion rests.

Housed within the casing and disposed in op-

2

erating planes for registration with the openings 12 of its foot-receiving portions 11 are massaging rollers 15, 15 which are mounted to reciprocate in an arcuate path for frictional contact with the bottoms of the feet in the area of the arches and which are also rotated about their axes. The degree of pressure to be exerted on the feet is governed by the will of the patient. It is preferred that these rollers reciprocate in opposite directions, but otherwise each is similarly mounted and a description of each mounting will therefore suffice for both. Each roller is fixed on a horizontal shaft 16 journaled in suitable bearings 17 applied to the upper ends of laterally-spaced rock arms 18 fulcrumed at their lower ends for vertically-swinging movement on horizontal pivot-bolts 19 applied to blocks 20 rising from a base plate 21. A grooved pulley 22 is fixed on one end of each shaft and is connected by a transmission belt 23 to a companion eccentrically-mounted pulley 24, shown in Figures 3 and 4, fixed on the companion end of a transverse driven shaft 25 journaled in a speed reducer unit 26. As shown in Figure 3, the eccentric pulleys are disposed at substantially 180° apart to effect the reciprocation of the massaging rollers 15 in opposite directions. The shaft 25 has a worm wheel 27 thereon meshing with a worm 28 applied to a drive shaft 29 connected to an electric motor 30 contained in the rear end of the casing 10. By this construction, reciprocating motion is not only transmitted to the respective roller mountings, but the rollers themselves are rotated at a comparatively slow uniform speed to effectually massage the bottoms of the feet. The surface of the rollers may be grooved as shown to augment the massaging treatment. Furthermore, it will be noted in Figure 2 that the roller mounting mechanism including the pulleys and belts are shrouded within the casing and the rollers 15 are the only elements exposed through the openings 12.

The companion roller-supporting rock arms 18 are joined below the roller by a tie rod 31 on which a sleeve 32 is mounted having a radial arm 33 to which one end of a spring 34 is connected, the other end thereof being connected to an eye bolt 35 attached to the base plate 21. This spring urges the rock arm assembly in a forward direction and a stop plate 36 is disposed in the forward-swinging path of the inner rock arms of both pairs to limit such forward movement.

While manifestly simple, compact, durable and inexpensive in construction, this massaging apparatus is so designed that it is not liable to get out of order, and it effectually and efficiently per-

3

forms massaging treatments to those parts of the feet which require strengthening and correction.

We claim as our invention:

1. An apparatus for massaging feet, comprising a casing having foot-receiving portions in its top side defining heel and toe supports and openings between the latter to expose the bottoms of the feet to the interior of said casing, massaging elements mounted in said casing in the registering plane of its openings for contact with the bottom of the feet, and means operatively connected to said elements for reciprocating them fore and aft relative to the feet and simultaneously rotating them in one direction.

2. An apparatus for massaging feet, comprising a casing having foot-receiving portions in its top side defining heel and toe supports and openings between the latter to expose the bottoms of the feet to the interior of said casing, vertically-swinging rock arms fulcrumed at their lower ends in said casing, massaging elements rotatably mounted in the upper ends of said rock arms, and drive means operatively to the said elements for simultaneously revolving them in one direction and transmitting reciprocating motion to said rock arms.

3. An apparatus for massaging feet, comprising a casing having foot-receiving portions in its top side defining heel and toe supports and openings between the latter to expose the bottoms of the feet to the interior of said casing, vertically-swinging rock arms fulcrumed at their lower ends in said casing, massaging elements rotatably mounted in the upper ends of said rock arms, a driven shaft, and means mounted on said shaft and operatively connected to said massaging elements for individually causing their rotation in one direction and the fore and aft swinging of said rock arms.

4. An apparatus for massaging feet, comprising a casing having foot-receiving portions in its top side defining heel and toe supports and openings between the latter to expose the bottoms of the feet to the interior of said casing, vertically-swinging rock arms fulcrumed at their lower ends in said casing, massaging elements rotatably mounted in the upper ends of said rock arms,

4

means connected to said rock arms for yieldingly urging them to swing in one direction, a driven shaft, and means mounted on said shaft and operatively connected to said massaging elements for individually causing their rotation in one direction and the fore and aft swinging of said rock arms.

5. An apparatus for massaging feet, comprising a casing having foot-receiving portions in its top side defining heel and toe supports and openings between the latter to expose the bottoms of the feet to the interior of said casing, vertically-swinging rock arms fulcrumed at their lower ends in said casing, massaging elements rotatably mounted in the upper ends of said rock arms, pulleys associated with said massaging elements, a driven shaft, and eccentrically-disposed pulleys mounted on said shaft and belt-connected to the companion massaging element pulleys.

6. An apparatus for massaging feet, comprising a casing having foot-receiving portions in its top side defining heel and toe supports and openings between the latter to expose the bottoms of the feet to the interior of said casing, vertically-swinging rocker arm units fulcrumed at the lower ends in said casing in the registering plane of its openings, shafts journaled in the upper ends of said rocker arm units and each having a massaging roller and pulley fixed thereon, springs connected to said rocker arm units for yieldingly urging them to swing in one direction, a driven shaft, and eccentrically-disposed pulleys mounted on said driven shaft and belt-connected to the companion massaging roller pulleys.

PETER BURNETT.
OTTO BUIKE.

REFERENCES CITED

The following references are of record in the file of this patent:

UNITED STATES PATENTS

Number	Name	Date
2,041,693	Boltz	May 26, 1936
2,045,814	Werler	June 30, 1936
2,114,322	Shafer	Apr. 19, 1938