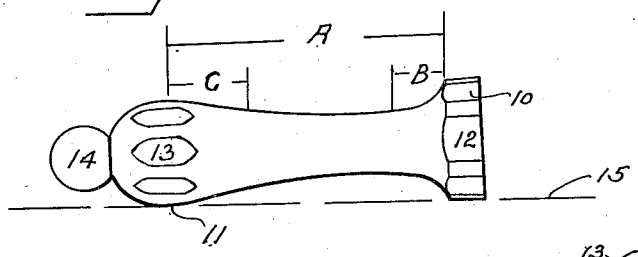
July 2, 1935. H. S. GARTNER 2,006,350

FOOT EXERCISER

Filed Dec. 14, 1933

Fig 1



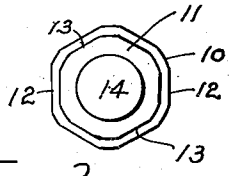


Fig 3

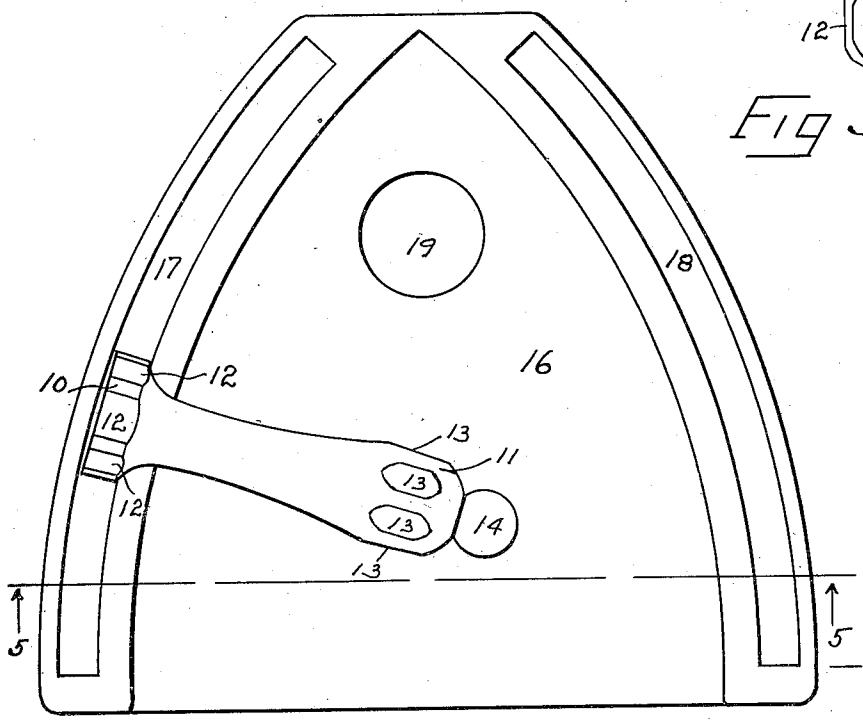


Fig 4

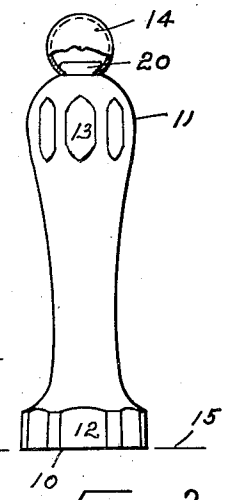


Fig 2

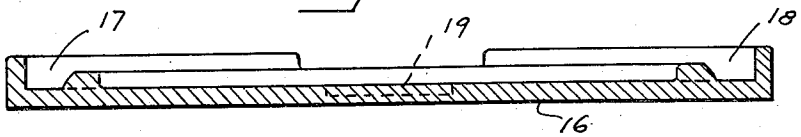


Fig 5

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FOOT EXERCISER

Henry Simon Gartner, Brooklyn, N. Y.

Application December 14, 1933, Serial No. 702,350

3 Claims. (Cl. 128—57)

The invention relates to therapeutic devices for treating the foot. It has for its main objects to provide a device for aiding in correcting deformities of the feet, such as, for example, falling arches; for aiding in strengthening and restoring strained and infeebled voluntary and involuntary muscles of the feet; and for aiding in loosening up adhesions and contractions, restoring correct articulation of all the parts of the feet, and stimulating circulation.

Another object is to construct the device so that various tendons and nerves in the leg will also be acted upon and exercised. A further object is to provide a device of simple construction, which can be manufactured at a very low cost.

These and various other objects and advantages will be readily understood from the following description and from the accompanying drawing of a preferred embodiment of the invention in which, however, modifications may be made without departing from the scope of the appended claims. In the drawing

Fig. 1 is a side view of the exerciser,

Fig. 2 a front elevation,

Fig. 3 a top view of Fig. 2,

Fig. 4 a plan view of a modified form of the exerciser together with a base plate which may at times be used with the exerciser, and

Fig. 5 a cross-section of this plate taken on line 5—5 of Fig. 4.

Referring now to Figs. 1, 2 and 3, the exerciser is preferably made of wood and in one piece, but may, of course, be made or molded of any other suitable material. It is made in the form of a roller which, when laid on a flat surface, rests on a flange 10 formed at one end and on enlargement 11 formed at the other end. The flange 10 is preferably of larger diameter than the enlargement 11. The reason for this will be explained later. The flange, as well as the tread of the enlargement, is provided with a plurality of flat faces 12 and 13. The object of these faces will also be explained later. The roller is curved in a particular manner between the flange and the enlargement, and a spherical knob 14 is formed on the end of the roller.

The exerciser is employed in the following manner. When it is desired to exercise the whole foot, the exerciser is placed on the floor 15, as shown in Fig. 1, and the user, while seated or standing, places the sole of the foot on top of the exerciser. When the exerciser is so placed that the outer side of the foot abuts against the flange 10, the curve A is counter-conformative to the transverse arch of the foot, the curve B to the outer arch, and the curve C to the longitudinal arch. If the foot is now moved back and forth, the exerciser will roll back and forth on the floor and back and forth under the foot. This imparts movement to every articulation in the foot.

As previously said, the tread-surfaces of the exerciser are provided with flat faces 12 and 13. As these faces pass over the floor, a vibratory motion is imparted to the exerciser, which motion, is in turn, transferred to the foot. This vibratory motion is very effective in restoring circulation, breaking up adhesions and generally restoring the foot to normal condition. It was also previously stated that the diameter of the flange is preferably made larger than the other tread surface. The flange being of larger diameter, it follows that it causes its end of the exerciser to move faster when the exerciser is rolled over the floor. In other words, it causes the exerciser to roll in a large arc and thus, at one extremity of its movements causes the foot to "toe-in" and at the other extremity to "toe-out". This is a very beneficial exercise for all the tendons and nerves in both the foot and the leg.

To particularly exercise the metatarsals and phalanxes, the ball of the foot is placed on the enlargement 11, while the exerciser is in the position shown in Fig. 1, and the heel allowed to rest on the floor. The metatarsal bones will conform themselves transversely to the curve of the enlargement 11. If the toes are now bent and stretched, both these and the metatarsal arch will be exercised.

To particularly exercise the toes, the exerciser is placed on the floor 15, in the upright position shown in Fig. 2. The toes are placed over the spherical knob 14 and "cupped" around this knob with the idea of gripping it and lifting the exerciser with the toes.

Referring now to Figs. 4 and 5. While the exerciser ordinarily is used directly on the floor, in some instances, as, for example, when the floor is covered with a soft carpet, the base plate 16 is used. This plate, which is preferably made of the contour shown, is provided with two arcuated tracks 17 and 18 in which the flange 10 is guided. The track 17 is used when the left foot is being exercised and track 18 when the right foot is being exercised. The base plate is also provided with a socket 19 in which the exerciser may be inserted to support it in the vertical position shown in Fig. 2.

While Figs. 1, 2 and 3 show the flat faces 12 and 13 aligned on the flange 10 and the enlarge-

ment 11, these faces may be staggered as shown on the exericser in Fig. 4. The knob 14, instead of being made integral with the exerciser, may be made of soft rubber, or similar material, and secured to an undercut boss 20, as plainly shown in Fig. 2. The exerciser might also be constructed with an inner recess in which, for example, foot powder might be stored, and the knob 14 used as a closure for this recess.

Having described my invention and its objects, what I claim as new and wish to protect by Letters Patent is:

1. A foot exerciser of the class described, consisting of a roller shaped to form arches counterconformative to the arches of the human foot and having a traction surface at each end, and a plurality of flat faces formed on said traction surfaces for causing vibratory motion to the foot when the exerciser is rolled over a hard surface by means of the sole of the foot.

2. A foot exerciser of the class described, consisting of a roller shaped to form arches counterconformative to the arches of the human foot and having a traction surface at each end, one of said traction surfaces made of larger diameter than the other so as to cause the exerciser to roll in an arcuated path when manipulated by the sole of the foot, and a plurality of flat faces formed on said traction surfaces to impart vibratory motion to the foot when the exerciser is rolled over a hard surface.

3. A foot exerciser of the class decribed consisting of a roller shaped to form arches counterconformative to the arches of the human foot and adapted to exercise the whole sole of the foot when being rolled over a surface by the foot, an enlargement formed on each end of the exerciser upon which it is rolled, one of said enlargements constituting an exerciser for the ball of the foot, a plurality of flat faces formed on said enlargements to cause vibratory movement to the foot as the exerciser is rolled.

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