June 5, 1928. 1,672,506

T. W. THACKERY

SPRING SHOE

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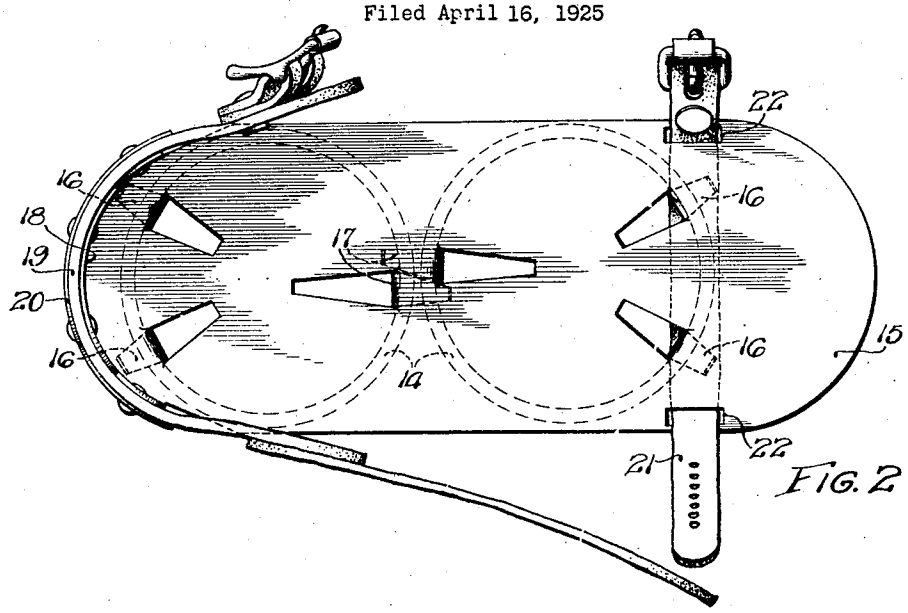


FIG. 2

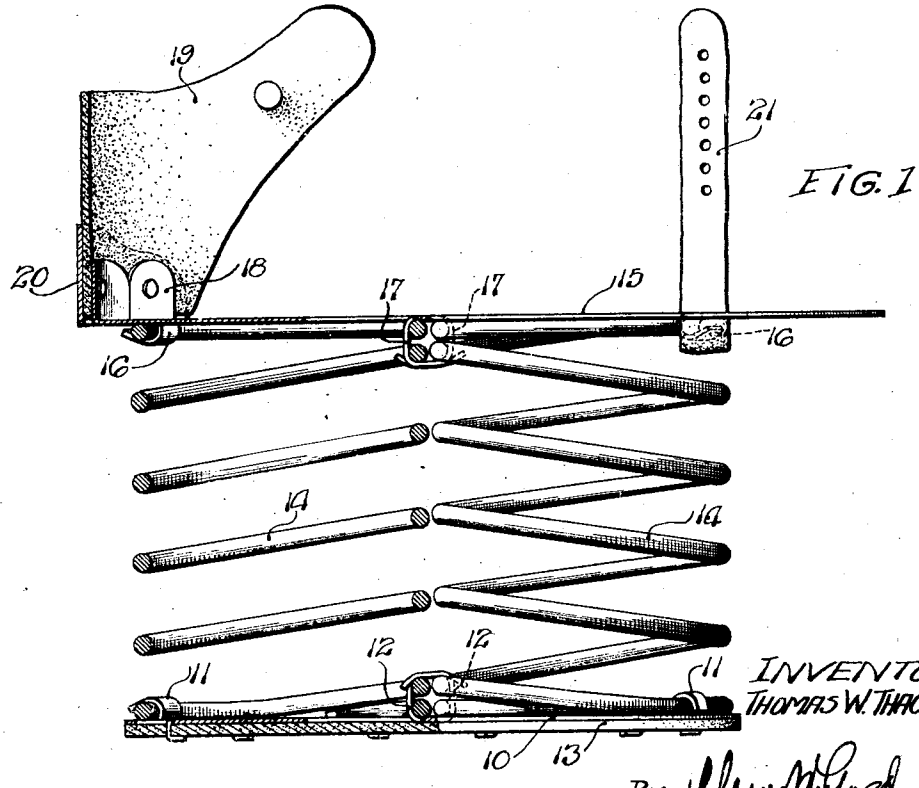


FIG. 1

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SPRING SHOE.

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The present invention has to do with a toy or amusement device providing novel exercise means for the wearer.

Among the objects of the invention, are the following:—

A device or scientific construction based on principles adapted to give to a wearer the greatest amount of pleasure with a minimum amount of danger;

A spring shoe comprising a plurality of properly proportioned members and intermediate springs of an improved design properly correlating the impacting face with the foot supporting member; and

A novel article of manufacture comprising an unique arrangement of supporting and impacting members of different sizes and intermediate parallel springs, the novelties of construction being adapted to provide simplicity of manufacture, sturdiness in construction, and means for scientifically exercising the body muscles while obtaining enjoyable and fascinating amusement.

These, and such other objects as may hereinafter appear, are obtained by the novel construction, combination, and arrangement of the several elements which constitute the device.

One embodiment of the invention is disclosed in the accompanying drawing, hereby made a part of this specification, and in which:—

Figure 1 is a vertical longitudinal section of one form of spring shoe embodying the invention;

Figure 2 is a top view of such embodiment.

Like reference characters are used to designate similar parts in the drawing and in the description which follows. The shoes are made in pairs, one for the right foot and another for the left. Only one shoe is illustrated.

The device as illustrated comprises a bottom plate 10 of metal having a plurality of ears stamped therein. At the ends, ears 11 are cut in the material and are adapted to be bent outwardly, while at the center of plate 10, staggered opposed ears 12 of greater dimension than the end ears 11 are similarly provided. A gripping surface or pad 13 of leather, rubber or other resilient material is secured to the under surface of said plate 10.

Two parallel coil springs 14 are secured to said bottom plate 10. Middle ears 12 are adapted to be articulated inwardly over two convolutions of both of said springs, while the end ears 11 are bent outwardly over a single convolution of a spring 14. The middle ears 12 are adapted to extend over continuous portions of convolutions of opposite springs 14.

A top plate 15 for the shoe of greater length than the bottom plate is provided. Bottom plate 10 is of such dimension that it merely forms a base to seat said parallel springs 14 and its end margins are flush with the perimeter thereof.

The front extension of the upper or top plate 15 projects further beyond the front spring 14 than the rear end projects beyond the rear section of rear spring 14. Ears 16 corresponding to the end ears 11 of the lower plate 10 are provided adjacent the front and back of the top plate 15 and these are bent over a single convolution of springs 14.

Two centrally situated and oppositely disposed ears 17, preferably staggered, of greater dimension than the front and back ears 16 just mentioned are adapted to be articulated downwardly and about two of the convolutions of each of the springs 14. The material of said ears 17 while not overlapping actually, extends over adjacent contiguous sections of the convolutions of both of said springs 14.

At the rear of the top plate 15 are three extension portions 18 adapted to be turned upwardly to provide flanges. To these flanges 18 the ankle portion of a strap 19, quite like that used on a roller skate, is secured. A curved heel plate 20 is formed about the rear or heel of the plate 15, and rivets or other suitable fastening means are provided and which extend through said heel plate 20, the leather of the strap 19, and said upturned flanges 18, thus securing said strap 19 to the device.

A front strap 21 is adapted to be secured to the top plate 15 through slots 22 in said top plate adjacent its edges and near the front thereof and by inserting the strap 21 therethrough.

The present form of invention is a decided improvement in a spring shoe. The lower plate 10 is of less dimension than the top plate 15 which has extension portions over the bottom plate 10 proportioned to properly balance the user so that his or her

weight is distributed in a manner suitable for walking, jumping or running while maintaining a perfectly balanced control.

Arranging the bottom plate 10 so that it corresponds to the periphery or perimeter of the springs 14 and disposing such springs 14 in parallel contiguous relation gives to the shoe an even balance not otherwise obtainable. A single spring is incapable of giving such balance and when the springs are separated, the user is required to bend the foot or ankle to keep a constant balance. Purposely the width of the two plates is kept substantially the same in order to give sufficient spread to the ground gripping surface, and to avoid any tendency of the foot to twist or turn.

I claim:—

1. A spring shoe comprising upper and lower plates, means for securing the upper plate to a shoe, and two coil springs secured between the plates by strips of metal partially severed from the plates and forming straps, extending around one convolution of the spring, the straps in the center of the plate extending around a convolution of both springs, said lower plate having its margins substantially flush with the outside periphery of said springs.

2. A spring shoe comprising superposed plates, intermediate parallel contiguous springs and means for fastening the uppermost of said plates to the foot, the uppermost of said plates overlapping the lowermost at each end, said lowermost plate being of a length substantially identical with the sum of the diameters of said springs.

3. A spring shoe comprising superposed plates, intermediate parallel contiguous springs and means for fastening the uppermost of said plates to the foot, the uppermost of said plates overlapping the lowermost at each end, said plates being formed from blanks of the same width, the end margins of the lower blank being flush with the periphery of said springs, and the upper plate extending over the lower plate a greater distance at the front than at the rear.

4. A spring shoe comprising superposed plates intermediate contiguous springs, and means for fastening the uppermost of said plates to the foot, the uppermost of said plates overlapping the lowermost plate at each end, said lowermost plate being of a length substantially identical with the sum of the diameter of said springs.

5. A spring shoe comprising superposed plates, intermediate contiguous springs, and means for fastening the uppermost of said plates to the foot, the uppermost of said plates overlapping the lowermost plate at each end, the end margins of the lower plate being flush with the periphery of said springs, and the upper plate extending over the lower plate a greater distance at the front than at the rear.

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