Jan. 4, 1927. 1,613,538

A. C. SCHAD

ATHLETIC SPRING EXERCISER

Filed Oct. 30, 1925

Fig. 1.

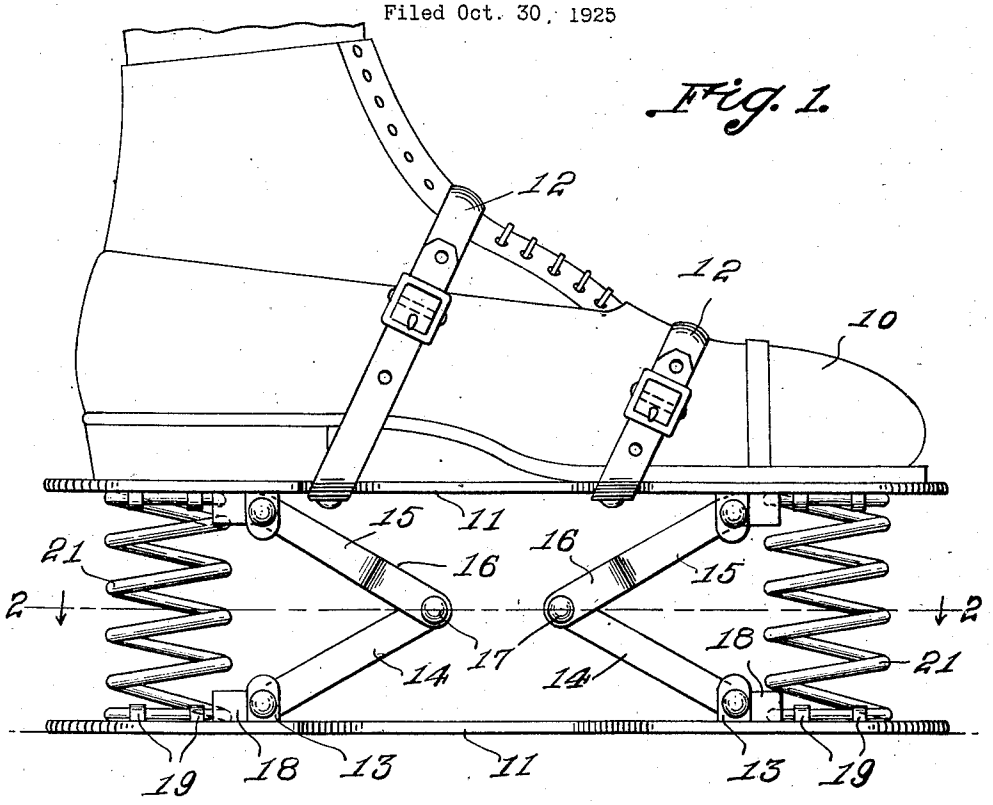
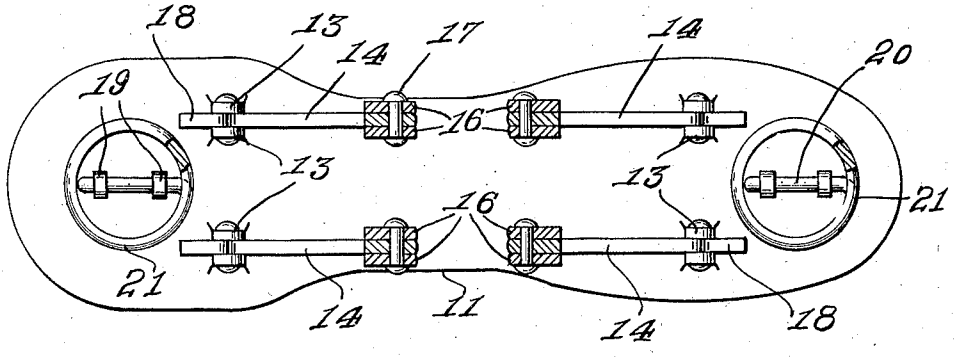



Fig. 2.




WITNESS:

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Patented Jan. 4, 1927. 1,613,538

# UNITED STATES PATENT OFFICE.

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## ATHLETIC SPRING EXERCISER.

Application filed October 30, 1925. Serial No. 65,839.

This invention relates to improvements in spring supporting means for shoes, the general object being the provision of spring members disposed between companion plates, one of which being adapted for engagement with a ground surface and the other for association with the sole of a shoe, whereby the operator may attain a great rate of speed in racing, walking and jumping owing to the spring action giving a momentum equivalent to that obtained from the springiness experienced in walking.

A further object of my invention resides in the provision of arms pivotally mounted upon the inner sides of the plates and having their remaining ends correspondingly associated to attain the desired spring and rebound.

With the above and other objects in view, the invention further consists of the following novel features and details of construction, to be hereinafter more fully described, illustrated in the accompanying drawing, and pointed out in the appended claims.

In the drawing:

Figure 1 is a side elevation of my invention as applied.

Figure 2 is a longitudinal sectional view taken on line 2—2 of Figure 1.

Referring to the drawing in detail, wherein like characters of reference denote corresponding parts, the reference character 10 indicates a shoe of the usual and well known construction which forms no part of the present application for latest patent but which is merely shown for purposes of illustration in bringing forward the novel advantages of the above entitled invention when used in conjunction therewith. The invention resides in the provision of companion plates 11 constructed after the manner and closely resembling the formation of a shoe sole, one of which is secured to the shoe 10 by strips 12.

Mounted for pivotal movement between spaced parallel apertured ears 13 carried upon the inner sides upon the companion plates 11 are arms 14 and 15 respectively. The arms 14 are relatively flat and extend upwardly from the upper side of the lowermost of the plates 11 and terminate in apertured portions upon their free ends, the purpose of which will be presently apparent. The adjacent ends of the arms 15 are reversely disposed and terminate to provide bifurcated portions 16 upon the free ends thereof and which receive the apertured ends of the arms 14 therein. Pivot pins 17 carried by said bifurcated portions 16 pivotally associate the adjacent ends of the arms. Both sets of arms provide extensions 18 which are arranged at an inclination with respect to the normal positions of the arms and which are adapted to engage the corresponding inner sides of the companion plates 11 to normally position the latter as illustrated in Figure 1 of the drawing and to check the rebound action of the plates in a manner to be presently described. Pairs of spaced aligned clips 19 are carried upon the inner opposed faces of the plates and which are adapted to receive therein the respective ends 20 of compression springs 21. Said springs are of sufficient size, weight and proportions to give a desired spring action relevant to the weight of the person employing the device.

In the mode of operation of the invention, subsequent to application upon a shoe and upon alternately compressing the springs 21 and relatively moving the plates one toward the other a spring action while walking and spring rebound while jumping will take place, whereby a great rate of speed may be attained through the use and operation of the above entitled invention.

The invention is susceptible of various changes in its form, proportions and minor details of construction, and the right is herein reserved to make such changes as properly fall within the scope of the appended claims.

Having thus described my invention what is claimed is:

1. A spring support for use upon shoes comprising companion plates, one of said plates having means for attachment to the sole of the shoe, spaced parallel apertured ears carried upon the inner sides of the plates, arms pivotally mounted between said ears and having their opposite ends disposed in juxtaposition, one set of arms terminating in bifurcated end portions for pivotally connecting the adjacent end of a companion arm, and compression springs interposed between the companion plates.

2. A spring support for use upon shoes comprising companion plates corresponding to the configuration of the soles thereof, one of said plates having means for attachment to the sole of the shoe, ears carried upon the opposed faces of the plates, arm members

pivotally connected with said ears adjacent the outer ends thereof, the free ends of one set of arms terminating in bifurcations for pivotally associating the adjacent end of the companion arm therewith, compression springs interposed between said plates, and angularly disposed extensions carried upon the first mentioned ends of the arms adjacent their association with the ears and adapted to engage the inner sides of the plates to restrict the rebound of the device while in use.

In testimony whereof I affix my signature.

ANTHONY C. SCHAD.