H. T. BRANT AND H. M. TURNER.

PROPELLING DEVICE.

APPLICATION FILED APR. 26, 1919.

1,331,952.

Patented Feb. 24, 1920.

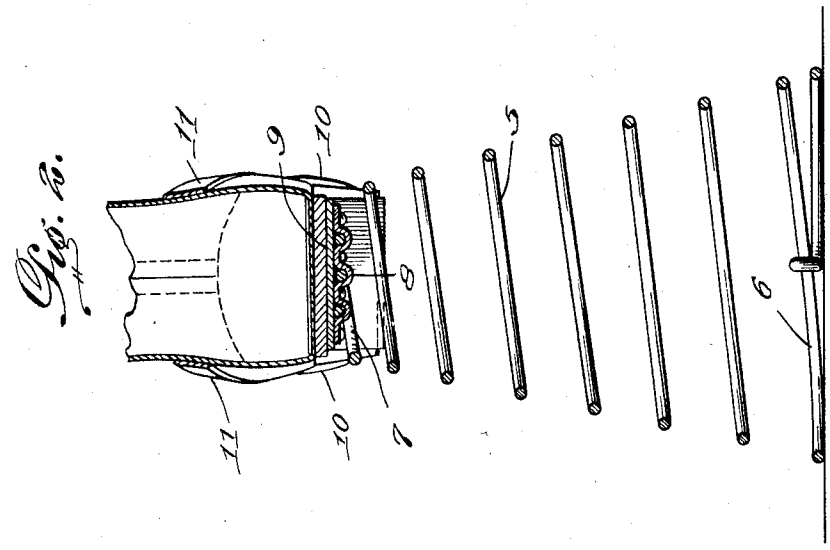


Fig. 2.

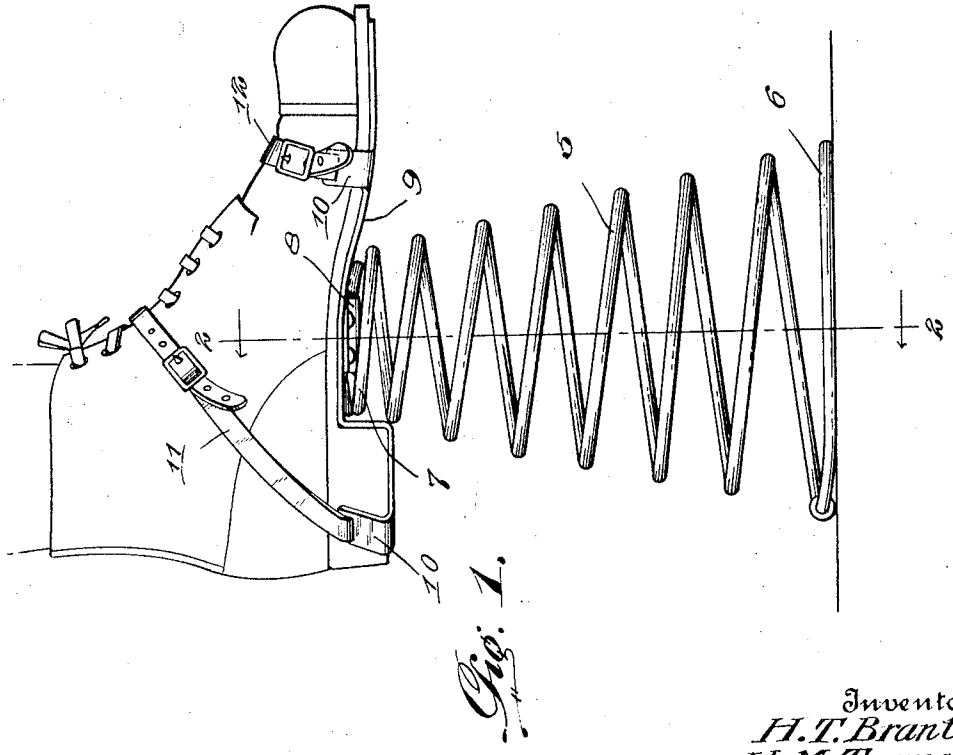


Fig. 1.

Witnesses
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UNITED STATES PATENT OFFICE.

HARRY T. BRANT AND HENRY M. TURNER, OF CHARLESTON, SOUTH CAROLINA.

PROPELLING DEVICE.

1,331,952. Specification of Letters Patent. Patented Feb. 24, 1920.

Application filed April 26, 1919. Serial No. 292,846.

To all whom it may concern:

Be it known that we, HARRY T. BRANT and HENRY M. TURNER, citizens of the United States, residing at Charleston, in the county of Charleston and State of South Carolina, have invented new and useful Improvements in Propelling Devices, of which the following is a specification.

This invention has reference to an attachment for the feet of a person to facilitate running, jumping and vaulting.

The improvement is in the nature of a spring member designed to be secured upon the feet of the user which, when subject to the weight of the person will yield in a downward direction, and when the foot of the person is partly raised will facilitate the further raising thereof, thus materially assisting the user in walking, running, jumping and vaulting.

A further object of the invention is to produce a device of this character which shall be of an extremely simple construction, which may be easily attached to or removed from the foot of the user and which will perform the functions for which it is devised with ease, accuracy and certainty.

The foregoing objects, and others which will appear as the nature of the invention is better understood, may be accomplished by a simple construction, combination and operative arrangement of parts, such as illustrated by the drawings.

In the drawings:

Figure 1 is a side elevation illustrating the application of the improvement.

Fig. 2 is a sectional view approximately on the line 2—2 of Fig. 1 and looking in the direction of the arrows.

In the showing of the drawing the device includes a helical spring 5 which has its convolutions gradually reduced from its outer to its inner convolution, the outer convolution, indicated by the numeral 6, being arranged flat or straight with respect to the foot of the user on which the device is arranged. The inner end convolution 7 of the spring is received in a clamp 8 secured upon the under face of a foot plate 9. This plate has its edges, adjacent to its toe portion and at its heel portion provided with oppositely disposed outstanding ears 10, the said ears being slotted to receive therethrough straps 11 and 12. These straps, as illustrated in Fig. 1 of the drawings are arranged upon the foot of the user, the said straps being adjustable. The inner and smaller convolution 7 of the spring 5 is, similar to the outer convolution 6, arranged in a straight line with respect to the foot plate 9, and upon a downward yielding of the spring the respective convolutions thereof will be received one in the other. Two of the devices are employed, one upon each foot of the user, and the elastic nature of the springs 5 permits of a partial compression of the coils thereof when the weight of the user is applied thereon, and thereafter the spring will expand, thus materially assisting the user in walking, running, jumping and vaulting. In jumping and vaulting the device serves as a shock absorber, and it is believed, from the foregoing description, when taken in connection with the drawings, that the simplicity of the construction and the advantages thereof will be apparent.

By reference to the drawings it will be seen that the clamping plate 8 is grooved upon its upper face and the said grooves receive therein the upper and reduced convolution of the helical spring.

Having thus described the invention, what is claimed as new is:—

1. In a device for the purpose set forth, a foot plate having its edges provided with outstanding ears receiving straps, a clamping plate on the under face of the plate, a helical spring having its convolutions gradually decreasing in size from the outer to the inner convolution and the inner convolution being flat and received by the said clamp and secured thereby to the foot plate, and the outer convolution being flat or in a line with the longitudinal plane of the foot plate.

2. In a device for the purpose set forth, a plate corresponding in shape to the under face of the sole and heel portions of a shoe, both the sole and heel of the said plate having their edges formed with upstanding flanges which are slotted to receive securing straps whereby the plate may be secured upon the sole of a shoe, said plate, at the instep portion thereof having secured upon

its under face a clamping plate which is grooved on its upper face, a helical spring having one of its end convolutions received in the grooves of the said plate, and said spring having its convolutions gradually increasing in size from its inner to its outer end convolution and its said outer convolution being flat and arranged in a line parallel to the longitudinal plane of the foot plate.

In testimony whereof we affix our signatures.

HARRY T. BRANT.
HENRY M. TURNER.