Aug. 5, 1930. O. WOELFER 1,772,333

ROLLER SKATE

Filed Sept. 10, 1927

Fig. 1.

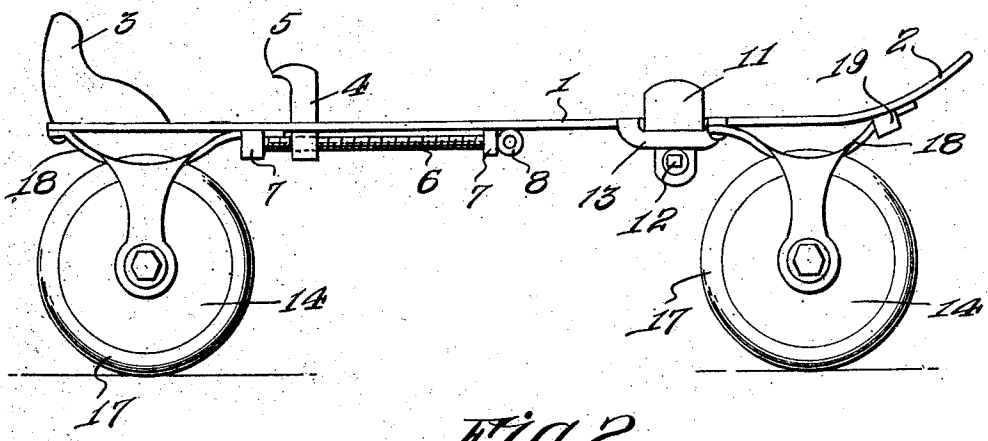


Fig. 2.

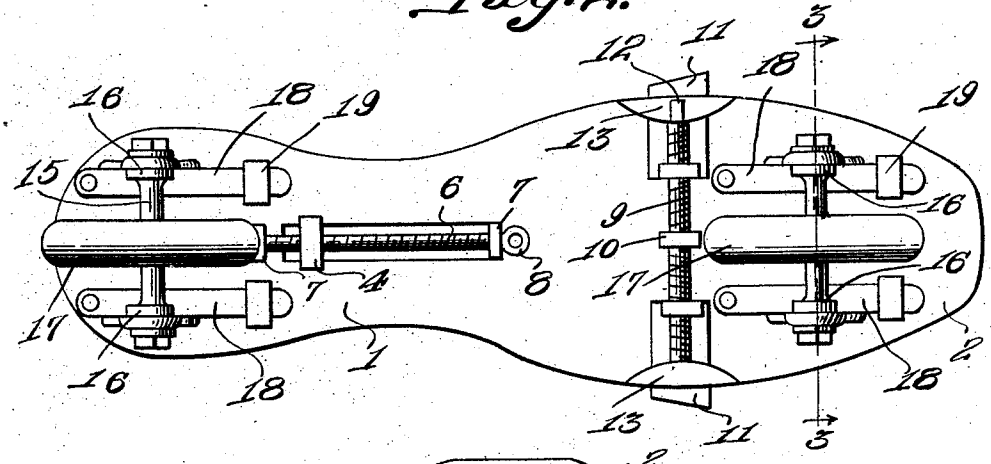
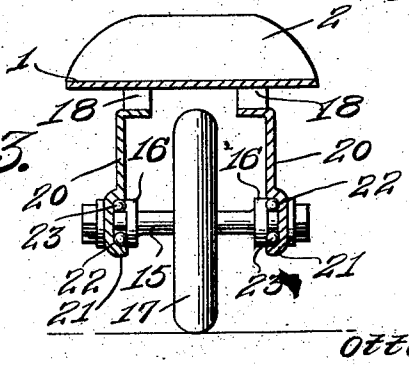


Fig. 3.



Otto Woelfer, INVENTOR

BY Victor J. Evans

ATTORNEY

WITNESS:

Patented Aug. 5, 1930 1,772,333

UNITED STATES PATENT OFFICE

OTTO WOELFER, OF GARY, INDIANA, ASSIGNOR OF ONE-HALF TO JAMES MALAS, OF GARY, INDIANA

ROLLER SKATE

Application filed September 10, 1927. Serial No. 218,717.

The invention relates to skates, and its general object is to provide roller skates that include heel and toe clamping means for securing the same to the feet of the wearer, with the result, ankle straps and like securing means are eliminated, and the skates are securely fixed to the wearer in a manner so that no discomfort is experienced.

A further object of the invention is to provide roller skates that have their rollers resiliently mounted with respect to the foot plates thereof, and by mounting the rollers in accordance with my invention, shocks and the like will be absorbed before reaching the wearer.

Another object of the invention is to provide roller skates of the character as above set forth, that are simple in construction, inexpensive to manufacture and efficient in operation and service.

This invention also consists in certain other features of construction and in the combination and arrangement of the several parts, to be hereinafter fully described, illustrated in the accompanying drawings and specifically pointed out in the appended claims.

In describing my invention in detail, reference will be had to the accompanying drawings wherein like characters denote like or corresponding parts throughout the several views, and in which:

Figure 1 is a side elevation of a skate constructed in accordance with the present invention.

Figure 2 is a bottom plan view thereof.

Figure 3 is a sectional view taken approximately on line 3—3 of Figure 2, looking in the direction of the arrows.

Referring to the drawings in detail, the reference numeral 1 indicates the foot plate for the skate which as shown is shaped to conform to the shape of a foot, and has its toe portion bent upwardly upon itself as at 2.

Secured to the foot plate at its rear end and following the curvature thereof is a heel plate 3. Co-operating with the heel plate for clamping the heel of a shoe of the wearer to the foot plate is a clamping member which includes an upright 4 having a rearwardly disposed penetrating pointed portion 5. The upright 4 is mounted through a slot formed in the foot plate, and is formed with a threaded opening in its lower portion which extends below the foot plate. Received in the threaded opening is a screw 6 which is swivelly mounted in ears 7 depending from the bottom of the foot plate as best shown in Figure 1 of the drawings. The screw 6 has formed on its forward end an eye 8 adapted to receive a pointed instrument for rotating the screw so as to cause the upright 4 to travel on the screw in accordance with the rotation thereof as will be apparent.

The toe clamping means is of the usual construction and includes a screw 9 swivelly mounted in an ear 10 depending from the plate as shown. The screw is provided with left and right hand threads and mounted upon the respective threads for movement on the screw 9 are the usual toe clamping lugs 11. The screw 9 terminates in square cross section ends 12 to receive a key for operating the screw and the toe clamping lugs accordingly. The toe clamping lugs are mounted for slidable movement through substantially U-shaped brackets 13 depending from the opposite sides of the foot plate for that purpose.

It will be noted that the skate which forms the subject matter of the present invention includes only two rollers, one of which is disposed at the heel portion of the skate while the other is arranged at the toe portion, and each of these rollers which are indicated by the reference numeral 14 includes a shaft 15 which has formed adjacent its ends collars 16. The rollers are of course fixed to their shafts and may be provided with metallic or elastic treads 17. The shafts 15 are resiliently secured to the foot plate 1, through the instrumentality of curved spring members 18 which are arranged in pairs and have one of their ends riveted or otherwise secured to the underside of the foot plate, while the opposite ends of the spring members are mounted for movement through substantially U-shaped brackets 19. Formed with the spring members and depending from the opposed sides thereof are strips 20 which terminate at

their lower ends in apertured enlarged portions 21 having their edges curved toward each other to provide ball races 22. The apertured enlarged portion receives the ends of the shafts 15 as shown, and disposed between the collar 16 and the apertured enlarged portions 21 are anti-friction balls 23.

From the above description and disclosure of the drawings, it will be obvious that I have provided a skate which has its rollers resiliently mounted with respect to the foot plate thereof, with the result the mounting which as referred to includes the spring members 18, will absorb shocks and jars before reaching the wearer, and due to the novel means for clamping the skate to the foot of the wearer, it will be apparent that no discomfort will be experienced by this clamping means, as the clamping lugs 11 secure the skate securely fixed to the toe of the shoe of the wearer, while the pointed portion of the upright 4 and heel plate 3 secure the skate to the heel.

It is thought from the foregoing description that the advantages and novel features of my invention will be readily apparent.

I desire it to be understood that I may make changes in the construction and in the combination and arrangement of the several parts, provided that such changes fall within the scope of the appended claims.

What I claim is:

1. A skate of the character described comprising a foot plate, resilient members having one of their ends secured to the underside of said foot plate and their opposite ends mounted for slidable movement, strips depending from the spring members, shafts mounted for rotation in said strips and a roller secured to each shaft.

2. A skate of the character described comprising a foot plate, curved spring members arranged in pairs and having one of their ends fixed to the underside of the foot plate, strips formed with said curved spring members and terminating in enlarged portions having confronting curved flanges formed thereon, shafts mounted in openings in the enlarged portions, collars on said shafts, balls between said collars and enlarged portions, and a roller for each shaft.

3. A skate of the character described comprising a foot plate, spring members secured thereto and having free ends, brackets carried by the foot plates and slidably receiving the free ends for engagement with said foot plate, and rollers having connection with the spring members.

In testimony whereof, I affix my signature.

OTTO WOELFER.