Jan. 13, 1931. E. KLEVSTAD 1,789,182

ICE SKATE

Filed Oct. 7, 1929 2 Sheets-Sheet 1

Fig. 1.

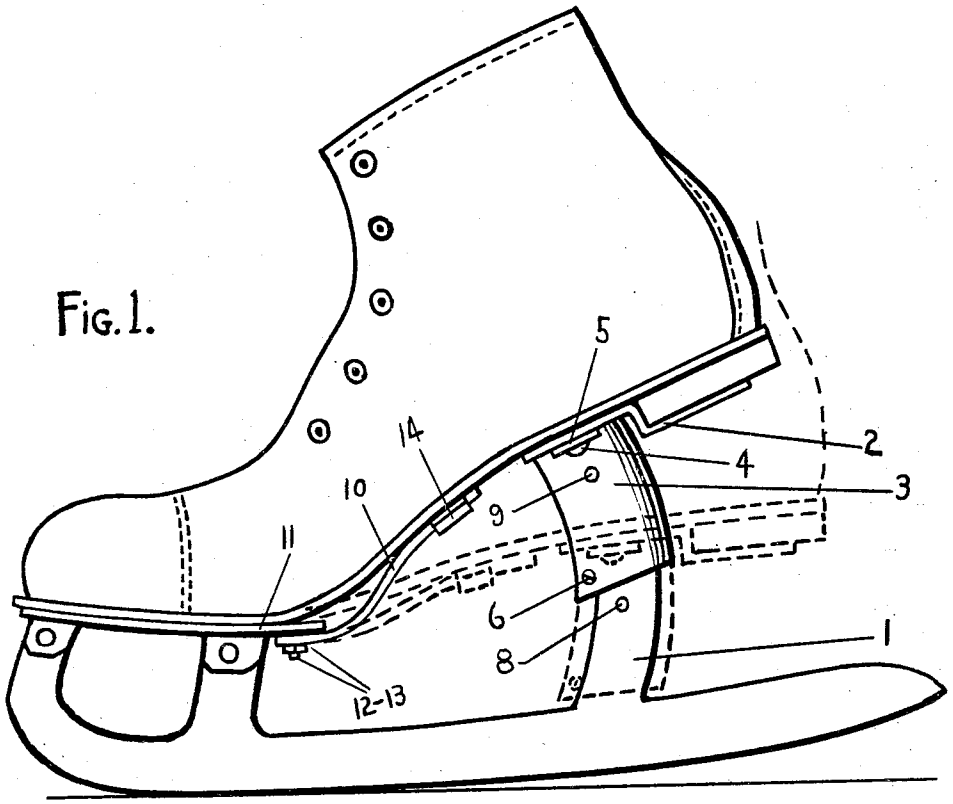
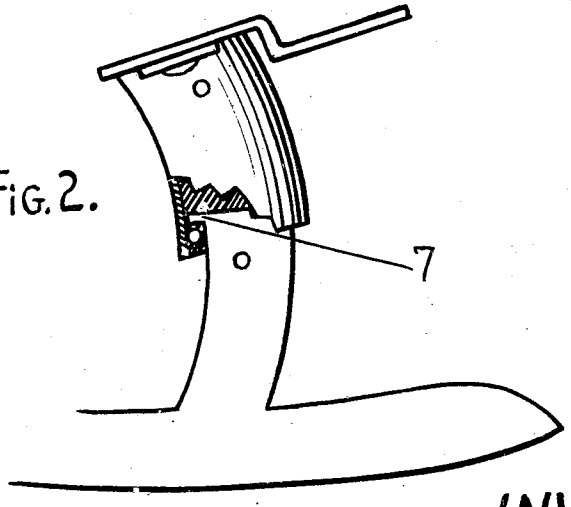


Fig. 2.



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Fig. 3.

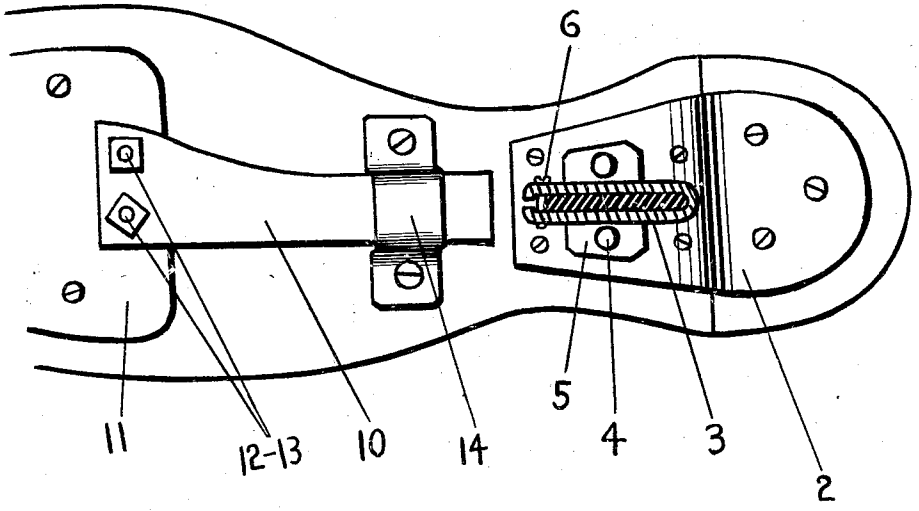
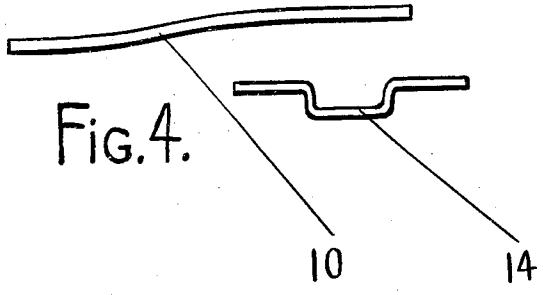


Fig. 4.



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UNITED STATES PATENT OFFICE

EDWARD KLEVSTAD, OF GRAND RAPIDS, MICHIGAN

ICE SKATE

Application filed October 7, 1929. Serial No. 397,993.

The object of the invention is to enhance the pleasures of ice skating by providing a skate which will allow the foot to bend, and thereby bring more muscles of the foot and leg into play, maintain blood circulation, and obviate the unpleasant strain on the instep incident to ordinary skating.

The principal feature of the invention is that it allows of the bending of the foot without having a pivotal joint in the blade.

In the drawings, Figure 1 is a side view of an ice skate constructed in accordance with my invention shown attached to a shoe and illustrating where the blade will engage the ice when the heel is raised to the highest position, providing the blade has a curved edge. The dotted lines show the heel in the normal position.

Figure 2 is a side view of the rear stanchion with the heel raised and a part of the upper section of the rear stanchion being broken away.

Figure 3 is a bottom view of the upper section of the rear stanchion and of the spring.

Figure 4 is a side view of the spring and a front view of the clamp.

Referring to the drawings, 1 is the lower section of the rear stanchion preferably arc-shaped and forming a part with the blade.

2 is a heel plate extending forwardly beyond the front of the heel and shaped to fit into the corner described by the heel and the sole.

3 is the upper section of the rear stanchion extending downwardly and being secured to the heel plate 2 by the rivets 4, which pass through the heel plate and the lugs 5 on each side, said lugs being formed part with the upper section 3 and turned outwardly at right angles thereto.

The upper section 3 is shaped to form a sheath adapted to receive and to guide the lower section 1 in a sliding engagement, thereby permitting the heel of the shoe to be raised arcuately in relation to the blade without transverse displacement of the blade in relation to the heel.

6 is a screw passing through holes in both walls of the upper section 2 and arranged to make contact, when the heel is raised to the highest position, with a lug 7 projecting forwardly from the top of the lower section 1 of the rear stanchion thereby checking the upward movement of the heel; said screw 6 is also arranged to adjust the sliding engagement by contracting or separating the two walls of the upper section 3.

8 and 9 are holes passing through both sections of the rear stanchions. It will be noticed that by passing a pin through the holes 8 and 9 when the heel is lowered, the skate is locked in a normal position.

10 is a flat spring having the forward end rigidly atached to the rear end of the sole plate 11 by the bolts 12 and 13.

14 is a clamp rigidly attached to the rear part of the sole of the shoe and shaped to receive the rear end of the spring 10 in a longitudinal sliding engagement.

When the heel is raised in relation to the blade, the spring acts to draw the rear end of the blade toward the heel to a normal position.

I am aware that prior to my invention, skates have been patented which allow of the bending of the foot by having a pivotal joint in the blade, but it is obvious that such a joint hinders the skater in making certain common maneuvers, and from long experience in skating, I find that the special arrangement of my invention, together with a spring to lift the rear part of the blade back to a normal position when the skate is lifted from the ice, makes a novel and pleasing result.

A special feature of the skate is that the mechanism can be locked very easily, thus making it equivalent to an ordinary skate, should it be so desired.

The special design and arrangement of the invention makes it economical and simple of construction.

I claim:

1. In an ice skate, the combination of a heel plate designed to be rigidly attached to the heel of a shoe and shaped to extend beyond the front of the heel engaging a part of the sole, a rear stanchion having an upper and a lower section, said lower section

being arc-shaped, forming a part with the blade and extending upwardly, said lower section having a lug projecting forwardly at the top thereof and a transverse hole near the top, the upper section being rigidly attached to the heel plate extending downwardly and being shaped to form an arc-shaped sheath adapted to receive and to guide the said lower section in an arcuate sliding engagement, said upper section having a pair of holes in the opposite walls thereof near the top corresponding transversely with each other and with the said hole in the lower section, and having a second pair of holes in the opposite walls near the bottom and the forward edge thereof corresponding transversely with each other and a screw passing through said second pair of holes.

2. In an ice skate having a non-hinged blade and a heel plate, an arc-shaped post extending upwardly from the blade, a downwardly extending socket attached to the heel plate and adapted to receive said post in a sliding engagement permitting the heel of the shoe to be raised arcuately from the blade, means preventing withdrawal of said post from said socket, and means for interlocking said post and said socket.

3. In an ice skate having a non-hinged blade, a heel plate and a sole plate, the combination of an arc-shaped post extending upwardly from the blade, a downwardly extending socket attached to the heel plate and being adapted to receive said post in a sliding engagement, means preventing withdrawal of said post from said socket, means for interlocking said post and said socket, a flat spring, means for attaching the forward end of said spring to the sole plate, and means for slidably attaching the rear end of said spring to the sole of a shoe.

EDWARD KLEVSTAD.