March 25, 1924. 1,487,976

J. ROSSI ET AL

SHOE HEEL

Filed April 2, 1923

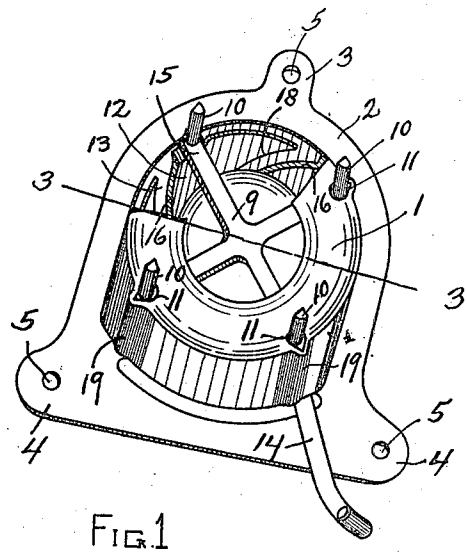


FIG. 1

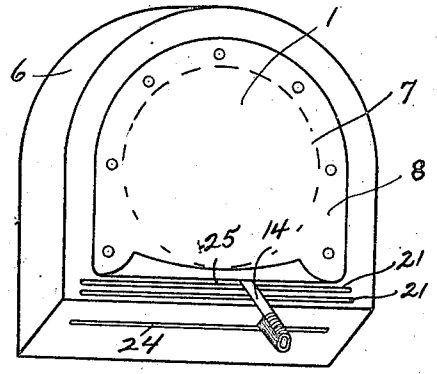


FIG. 2

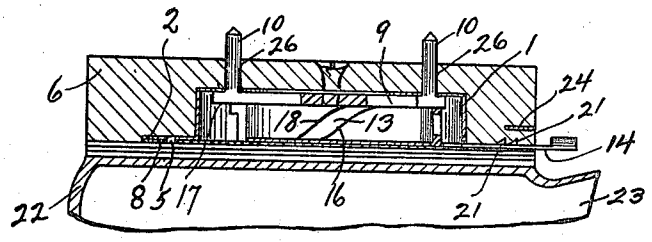


FIG. 3.

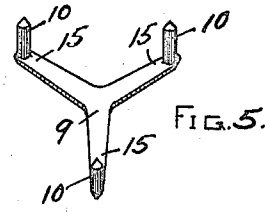


FIG. 5.

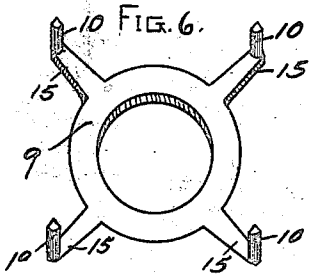


FIG. 6.

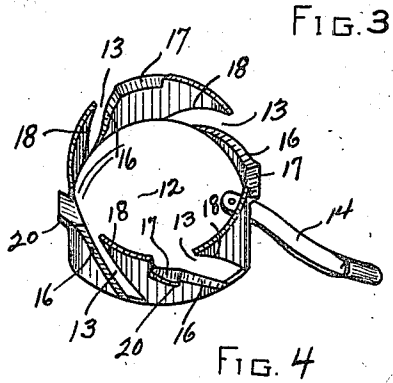


FIG. 4

Joseph Rossi and
John Jacobey INVENTORS

BY C. C. Harbinson
ATTORNEY

Patented Mar. 25, 1924. 1,487,976

UNITED STATES PATENT OFFICE.

JOSEPH ROSSI AND JOHN JACOBEY, OF YOUNGSTOWN, OHIO.

SHOE HEEL.

Application filed April 2, 1923. Serial No. 629,250.

To all whom it may concern:

Be it known that we, JOSEPH ROSSI and JOHN JACOBEY, citizens of the United States of America, residing at Youngstown, in the county of Mahoning and State of Ohio, have invented certain new and useful Improvements in Shoe Heels, of which the following is a specification.

This invention relates to heels for shoes. The principal object is to provide a heel that may be used under ordinary circumstances, and at the same time, provide a means for converting the heel into one, suitable for walking on ice or various slippery elements. This is done by providing a plurality of spikes which may be projected beyond the lower surface of the heel and when desired, may be easily withdrawn.

The drawing illustrates the preferred embodiment of the invention. However, it is to be understood that in adapting the same to meet different conditions, various changes in the form, and minor details of construction may be resorted to without departing from the nature of the invention as claimed and set forth in the drawings:—

Figure 1 is a perspective view with parts broken away, showing a portion of the device which is inserted within an ordinary rubber heel.

Figure 2 is a perspective view of the heel with the apparatus positioned within the heel.

Figure 3 is a cross section of the heel and shows a section of the apparatus within the rubber heel portion, as it would appear on line 3—3, of Figure 1.

Figure 4 is a detailed perspective view of a drum member provided with a plurality of inclined slots for actuating the movement of a spike frame member.

Figure 5 is a perspective view of one form of a spike frame member.

Figure 6 is another modification of the spike frame member.

Corresponding and like parts are referred to in the following description and indicated in the several views of the drawings by like reference characters.

By referring to Figure 1 it will be seen that the device embodies a casing 1 provided with an outer flange 2 secured thereto, having a rear lug 3 and two front lugs 4, each of said lugs provided with openings 5 for the reception of screws which pass through said openings 5 and are secured into a heel base portion in order to secure the heel proper to the base portion of the shoe.

By referring to Figure 2 it will be seen that the heel 6 is provided with a recess 7 for the reception of the casing 1.

By referring to Figures 2 and 3 it will be seen that there is a plate 8 resting directly underneath the outer flange 2, in order to more securely seal the recess 7 and the parts therein contained.

By referring to Figure 1 it will be seen that within the casing 1 there is a spike frame member 9 carrying a plurality of spikes 10 extending through the openings 11 at the upper outer circumference of the casing 1. In order to actuate this spike frame member 9 there is provided within the casing 1 a drum member 12 provided with a plurality of inclined slots 13. To the drum member 12 there is firmly secured an operating lever 14 which turns the drum member 12 within a casing 1, causing the arm ends 15 to travel upwardly on the inclined edges 16 carrying the spike frame member 9 to the top of the drum member 12 until the arm ends 15 rests upon the seat 17. This movement takes place when the operating lever 14 is moved from the left to the right. When it is desired to cause the spikes 10 to recede, the operating lever 14 is moved from right to left. When the upper edges of the arm ends 15 come in contact with the upper surfaces 18 of the slots 13 they carry the spike frame member 9 downwardly into the drum member 12.

In order to reduce friction and to provide for an easy operation of the device, and to keep the spike frame member 9 from turning, the casing 1 is provided with a plurality of grooves 19 in which the extreme ends of the arm ends 15 slide.

By referring to Figure 4 it will be seen that the drum member 12 is provided with a plurality of guide lugs 20 in order to facilitate the movement of this drum member 12.

By referring to Figures 2 and 3 it will be seen that the heel 6 is provided with a plurality of grooves 21 for the purpose of causing a close contact of the heel 6 when the same is secured to the base portion 22 of the shoe 23. In order to cause a close contact between the heel 6 and the base portion 22 of the shoe 23, I have also provided a flat spring 24 inserted in the heel 6 below

the grooves 21 in order to hold the rubber edges between the grooves 21 tight against the operating lever 14, thereby eliminating the possibility of getting snow, dirt, or moisture into the casing 1.

By referring to Figure 3 it will be seen that the portion of the operating lever 14 that slides underneath the flat spring 24 and the grooves 21, is extremely thin, in order to allow the rubber to close the slots 25.

By referring to Figure 3 it will be seen that the spikes 10 are projected through the openings 26 of the heel 6. When the spikes have been caused to recede by the movement above described, the ends of the spikes 10 do not completely withdraw through the openings 26, in order to keep said openings 26 closed so that moisture and foreign substances will not enter into the casing 1.

What we claim is:—

1. In a device of the class described, a recessed heel, a casing situated within said recess, a movable drum positioned within said casing, a plurality of inclined slots formed in the outer edges of said drum, a spike frame member actuated by said inclined grooves, substantially as described for the purpose set forth.

2. In a device of the class described, a recessed heel, a casing positioned within said recess, a plurality of spikes secured to a spike frame member for actuating said spike frame member, a movable drum within said casing, a lever attached to said movable drum, a plurality of grooves within the heel 6, located where the operating lever 14 swings, a flat spring inserted in said heel parallel to a slot through which the operating lever travels, substantially as described for the purpose set forth.

3. In a device of the class described, a casing adapted to be positioned within a heel, a movable drum within said casing, a plurality of inclined grooves formed in the outer circumferal wall of said drum, a plurality of grooves in said casing for the purpose of guiding and maintaining of spike frame member, a plurality of lugs formed on the outer circumference of the circumferal wall of the drum member, a plurality of seat members for the support of the spike frame member when the same has been projected upwardly and the spikes are extended beyond the lower surface of the heel, substantially as described for the purpose set forth.

In testimony whereof we affix our signatures.

JOSEPH ROSSI.
JOHN JACOBEY.

Witnesses:
C. A. HARPMAN,
L. A. OMLOR.