P. G. KNIZEK.

DETACHABLE SOLE FOR SHOES.

APPLICATION FILED MAR. 19, 1921.

1,406,657. Patented Feb. 14, 1922.

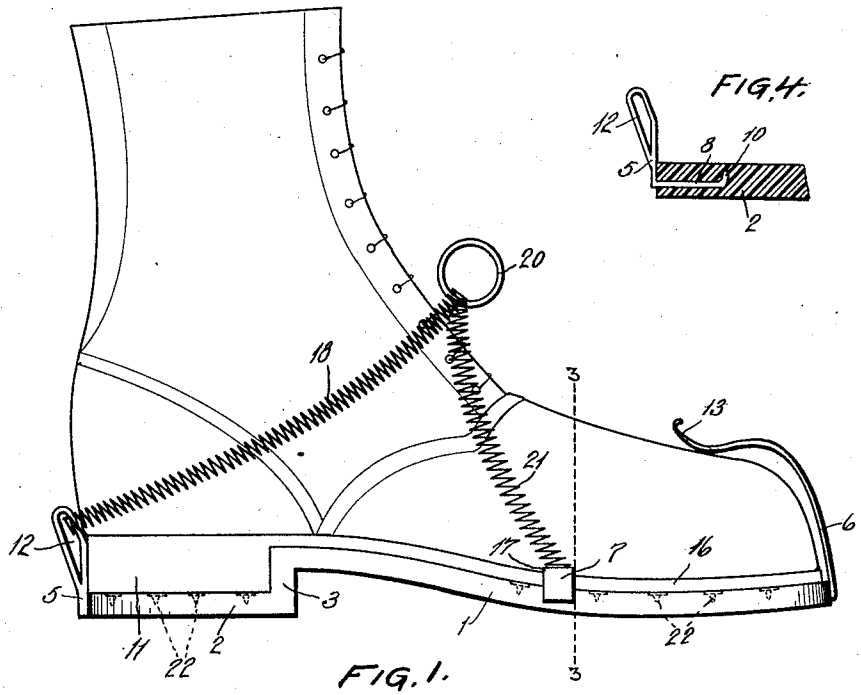


FIG. 1.

FIG. 4.

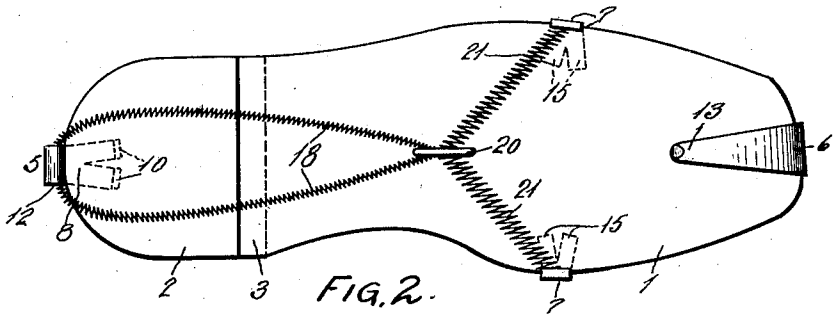


FIG. 2.

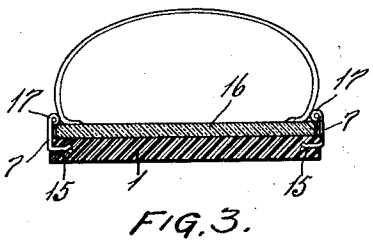


FIG. 3.

INVENTOR,
PROKOP G. KNIZEK.

BY,
Horace Barnes,
ATTORNEY.

UNITED STATES PATENT OFFICE.

PROKOP G. KNIZEK, OF CHEHALIS, WASHINGTON.

DETACHABLE SOLE FOR SHOES.

1,406,657. Specification of Letters Patent. Patented Feb. 14, 1922.

Application filed March 19, 1921. Serial No. 453,682.

To all whom it may concern:

Be it known that I, PROKOP G. KNIZEK, a citizen of the United States, and a resident of Chehalis, in the county of Lewis and State of Washington, have invented a new and useful Improvement in Detachable Soles for Shoes, of which the following is a specification.

This invention relates to improvements in detachable soles for shoes.

The object of the present improvement is to provide a simple and inexpensive device that may be attached to shoes or boots having calks or hob-nails, so that one may walk on cement or stone pavements with comfort and which will protect wooden floors, linoleum and other floor coverings from being cut by such projections from shoes. At the present time loggers and woodsmen who wear such projecting nails in their boots to keep from slipping on the logs are inconvenienced and often unwelcome in buildings, on boats, automobiles and cars from the destructive effects of the shoe-calks worn by them. My present invention makes it a simple and expeditious matter to put on or off a protecting sole that will obviate all difficulty in wearing shoes with calks or hob-nails even in fine automobiles or on hard-wood floors.

The invention consists in the novel construction, adaptation and combination of a sole for shoes and means for readily attaching and detaching the same from a shoe, as will be fully described in the following specification, illustrated in the accompanying drawings, and finally pointed out in the appended claims.

In the said drawings, Figure 1 is a view in side elevation of a detachable shoe-sole embodying my invention, shown in operative position on a shoe.

Fig. 2 is a top plan view of the sole.

Fig. 3 is a view in cross-section on line 3—3 of Fig. 1.

Fig. 4 is a fragmentary view in longitudinal section of a detail of the invention.

Referring to said views, the reference numeral 1 indicates the sole-portion of my improved detachable shoe-sole and 2 the heel portion with a connecting part 3 affording a homogeneous and integral sole composed, preferably, of rubber composition vulcanized in the form shown.

The sole is attached to the shoe by means of spring-clips 5 and 6 at the heel and toe of the shoe, respectively, and by spring-clips 7 at each side of the sole. The heel clip 5 is formed with a horizontally extending bifurcated tongue 8 that may be embedded in the rubber composition, or as shown, may have its lower surface flush with the lower face of the heel portion 2 while its ends 10 may be turned inward at an angle to obtain a better grip and connection with the rubber material. The clip extends upwardly to above where it engages the heel 11 of the shoe and is formed with a loop 12 which forms a relatively stiff spring to engage the heel of the shoe.

Clip 6 at the toe of the shoe is anchored in the sole-material similarly to the heel-clip and extends upwardly and rearwardly in curved directions to engage the toe of a shoe and is turned upwardly at its extremity 13 so that the clip will rest upon the shoe without discomfort to the wearer.

Side clips 7 are bifurcated as indicated where they are embedded in the shoe-material and bent in opposite directions at the tips 15. The upper portion of said side clips are arranged to have a spring-tension against the sole 16 of the shoe and said upper portion terminates in a rolled eye 17.

18 indicates an endless flattened wire coil-spring band that passes through the loop 12 and also through a ring 20. A flattened wire coil-spring band 21 is connected at its opposite ends to the eyes 17 of clips 7 and at its middle portion passes through said ring 20.

In use the shoe is slipped through the spring-band 18 and under the band 21 so that the clips 5 and 6 engage the heel and toe, respectively, and the side clips 7 press against the sole 16 of the shoe while the rolled loop or eye 17 of said clips catch over the shoe-sole. The ring 20 is held by the fingers to stretch the springs 18 and 21 when putting on a shoe and when the sole is positioned in proper place on the shoe the ring 20 is released and said springs engage the shoe and assist in holding the sole on with safety and comfort.

The projecting calks or hob-nails 22 embed themselves in the soft material of the attached sole and assist in maintaining the sole on the shoe. The holes thus made by the calks will receive the calks the next time the sole is worn.

The invention is quite simple and inexpensive to manufacture and its many advantages have been heretofore explained.

It is obvious that changes may be made in the construction and material described in the specification within the scope of the claims without departing from the spirit of the invention.

What I claim as my invention, is—

1. A detachable sole for shoes, consisting in a sole of rubber composition, a heel-clip arranged to yieldingly engage the heel of a shoe, an endless wire coil-spring band arranged to extend from said heel-clip around the shoe, a spring-clip on each side of the sole arranged to grasp the shoe-sole, a wire coil-spring band connected at its opposite ends to said side clips, a ring through which both said spring-bands extend, and a toe-clip.

2. A detachable sole for shoes, consisting in a sole having an integral heel-portion offset downwardly therefrom, a heel-clip arranged to yieldingly engage the shoe-heel, a wire coil spring band connected to said heel-clip, a clip on each side of the sole arranged to grasp the shoe-sole, a wire coil spring band connected at its opposite ends to said side clips, respectively, a ring through which both said spring bands extend, and a toe-clip.

3. A detachable sole for shoes, consisting in a sole of rubber composition, a heel-clip formed with a loop and arranged to yieldingly engage the heel of a shoe, an endless wire coil-spring band extending through said loop, and around the shoe, a spring-clip on each side of the sole arranged to grasp the shoe-sole, and having an upper extremity affording an eye, a wire coil spring band connected at its opposite ends to the eyes of said side-clips, respectively, a ring through which both said spring bands extend, and a toe clip.

4. A detachable sole for shoes, consisting in a sole of rubber composition, a heel-clip formed with a loop and arranged to yieldingly engage the heel of a shoe, said heel-clip having a lower bifurcated portion embedded in the sole-material, an endless wire coil spring band connected to said heel-clip and extending around the shoe, a spring-clip on each side of the sole arranged to grasp the shoe-sole, and having an angularly bent portion extending into said sole-material, a wire coil spring band connected at its opposite ends to said side-clips, respectively, a ring through which both said spring bands extend, and a toe clip.

5. A detachable sole for shoes, consisting in a sole of rubber composition, a heel-clip formed with a loop and arranged to yieldingly engage the shoe-heel, said heel-clip having a lower bifurcated portion embedded in the sole-material, an endless flattened wire coil spring band extending through said loop and around the shoe, a spring clip on each side of the sole arranged to grasp the shoe-sole and having an angularly bent portion extending into said sole-material, a flattened wire coil spring band connected at its opposite ends to said side clips, respectively, a ring through which both said spring bands extend, and a toe clip.

Signed at Chehalis, Washington, this 19th day of March, 1921.

PROKOP G. KNIZEK.