March 19, 1957 H. JOSEPH 2,785,481

OVERSHOE WITH SELF-SEALING SOLE AND HEEL FOR SPIKED OR CLEATED SHOES

Filed Dec. 13, 1955

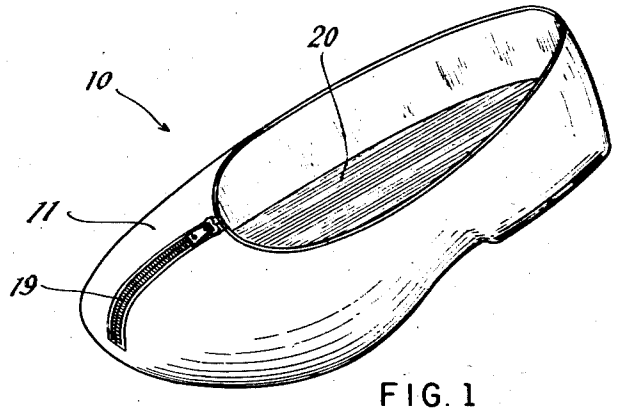


FIG. 1

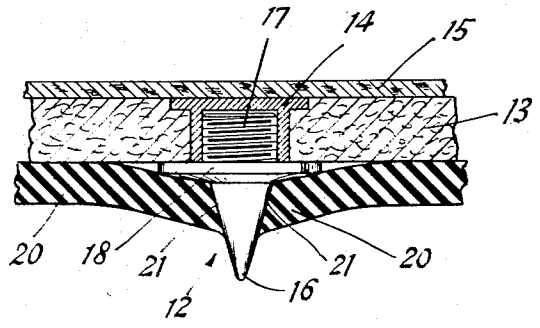


FIG. 2

INVENTOR.
Henry Joseph
BY Irving Deidman
ATTORNEY

United States Patent Office 2,785,481
Patented Mar. 19, 1957

2,785,481

OVERSHOE WITH SELF-SEALING SOLE AND HEEL FOR SPIKED OR CLEATED SHOES

Henry Joseph, New York, N. Y.

Application December 13, 1955, Serial No. 552,750

1 Claim. (Cl. 36—7.3)

This invention relates to overshoes, or overshoes commonly called "rubbers," the soles and heels of which are made of self-sealing "rubber" and which can be worn over spiked golf shoes.

Broadly, it is an object of the invention to provide a pair of rubbers which can be readily pulled over spiked golf shoes and which will permit the spikes on the soles and heels of the golf shoes to pass through the self-sealing rubber of the sole and heel of the rubber or overshoe sealing itself around the spikes creating a waterproof enclosure for the spiked golf shoes.

At the present time, it is the custom of golfers, who play in rainy weather or on damp or wet golf courses, or greens, to use rubbers or overshoes having the spikes attached to the soles or soles and heels of the rubbers, and such rubbers are used over their regular shoes having no spikes. Should it start to rain while a golfer is on the golf course wearing the usual spiked shoe, such golfer either has to go back to the club house to change to his regular shoes and then put on rubbers having spikes on the soles or soles and heels, since the regular spiked golf shoes are generally not waterproof.

Furthermore, the golf course is frequently wet with dew in the early morning, or during or after rain. Wet shoes are unhealthy and uncomfortable. If spikes are not used, a golfer is apt to slip on moist ground causing accidents and other disadvantages in play. If extra golf shoes are carried, the added weight is burdensome. If a golfer wears my rubbers and he finds no use for them on the golf course, he can place them in the golf bag, adding but little weight to his burden.

I have, therefore, provided a pair of rubbers for spiked golf shoes with a zipper down the central front of the vamp to permit wide opening of the front of the rubbers to accommodate the spiked golf shoes, the rubbers having self-sealing soles and heels permitting the spikes of the shoes to penetrate the self-sealing soles and heels of the rubbers or overshoes.

Rubbers of such construction could easily be carried in the golfer's golf bag at all times, do not take up much room and are light in weight. Carrying such rubbers would avoid the necessity of carrying a pair of spiked rubbers, or extra spiked golf shoes or street shoes to accommodate the spiked golf rubbers.

Another advantage of my rubbers with self-sealing soles and heels is that after the spikes of a particular pair of golf shoes have been used with a pair of my golf shoe rubbers, the spikes of the golf shoes will more easily penetrate the soles and heels of the rubbers and the rubbers will still be waterproof when worn over the golf shoes.

Still another advantage of my golf shoe rubbers is that if the golf shoes are resoled and the spikes are attached in different positions after the repair, the same golf shoe rubbers can be used since the newly positioned spikes will penetrate the self-sealing soles and heels of the rubbers in different places without impairing the effectiveness of the rubbers to keep rain and moisture away from the golf shoes.

Heretofore, rubbers for golf shoes have been patented containing preformed holes in the soles and heels to permit the spikes to pass through such preformed holes. In such case the spikes had to be positioned to coincide exactly with such preformed holes. If the golf shoe was resoled, the spikes had to be positioned in the exact same position which was time consuming and, therefore, expensive. If a new golf shoe was purchased with spikes, the spikes never matched the preformed holes in the rubbers.

In using my rubbers with self-sealing soles and heels any pair of spiked golf shoes of the same size can be used, whether new or resoled since the spikes can penetrate the sole and heel anywhere and still be effective against moisture.

Another object of the invention is to provide a waterproof rubber overshoe with self-sealing rubber soles and heels which is light in weight, can be manufactured at low cost, is durable and which can be used with different golf shoes in all kinds of weather.

Another object of the invention is to provide a pair of rubbers or overshoes having normally imperforate self-sealing soles and heels and which can be worn over shoes having ground gripping means projecting from the soles and heels of the shoes, such as spikes or cleats, and which can also be worn as regular rubbers.

For a fuller understanding of the nature and objects of the invention reference is had to the following detailed description, in connection with the accompanying drawing, in which:

Fig. 1 is a perspective view of a rubber or overshoe for use with a spiked shoe and is shown for illustrative purposes only.

Fig. 2 is an enlarged fragmentary sectional view of the sole or heel portion of a golf shoe with the point of the golf shoe spike penetrating the self-sealing rubber sole or heel of the rubber or overshoe.

Referring to Fig. 1, numeral **10** represents a rubber or overshoe and may be formed in any of the well-known shapes heretofore used. It is desirable that the upper or portion above the sole and heel be of comparatively thin material, such as rubber, or rubber construction, or rubber and fabric, to reduce the weight of the upper and to permit of better stretchability. The lower or sole, arc and heel portion **20**, is made of self-sealing rubber, or of a synthetic "rubber" known under the trade names such as Butaprene, Chemigum, Hycar, and Perbunan. Government plants classify this type as GR–A. The original designation was buna, "bu" being the first syllable of butadiene, and "na" being taken from natrium, that is the sodium originally used as a catalyst in the polymerization of buna rubbers. Such rubber materials are self-sealing and have a high degree of strength and resistance. Butyl may also be used to good advantage since it has a high degree of stretch, has good resistance and is impermeable to air and moisture. GR–S is a copolymer produced by the polymerization of about three parts of butadiene with one part of styrene and may also be used as a self-sealing rubber for the sole, shank and heel portion of my overshoe.

The vamp portion **11** of the overshoe is provided with a slide fastener or zipper **19**, as shown, which permits the overshoe to be opened far enough to insert the spiked shoe, such as a golf spiked shoe and to disengage the spikes from the overshoe when it is desired to remove the golf shoe from the overshoe.

In Fig. 2, there is shown one tapered spike **12** of a plurality of spikes. Such spikes are well-known in the art and may be of the detachable or permanent type

and may be attached to the sole, or sole and heel of the shoe, such as a golf shoe. The type of spike shown in Fig. 2 is pictured for illustrative purposes only and any of the other types may be used so long as the end **16** is sufficiently pointed or sharp to penetrate the self-sealing rubber of the sole and heel **20** of the overshoe. In Fig. 2 the sole **13** is provided with an internally threaded sleeve **14** covered by an insole **15** and receives the threaded shank **17**. The flange **18** may have indentations (not shown) which may be engaged by a special tool for removing or inserting the spike within the sleeve **14**. Of course, if cleats (not shown) are used in place of spikes, such as on a baseball shoe, such cleats should be sufficiently sharp to penetrate the self-sealing rubber of the sole and heel **20** of the overshoe **10**.

In use with a spiked shoe, such as a golf shoe, it is best to place the overshoe **10** upon a soft surface such as the earth or grass; the zipper **19** of the overshoe **10** is opened to admit the spiked golf shoe and the shoe is then pressed down by the foot so that the points **16** of the spikes **12** penetrate the self-sealing rubber sole and/or heel **20** of the overshoe **10**. The edges **21** of the rubber **20**, where the tapered spike **12** has penetrated, hug the conical circumferential face of the spike seating itself snugly around the entire tapered circumference of the spike and against the sole **13** of the shoe to prevent any moisture from coming in contact with the shoe. When the shoe is firmly and completely seated within the overshoe **10**, the zipper **19** is closed.

When it is desired to remove the overshoe **10**, the zipper **19** is opened and the overshoe is "peeled" from the shoe. The spikes **12** readily become disengaged from the self-sealing rubber sole and heel **20**, the openings sealing themselves when the spikes leave the sole and heel **20**.

It is obvious that my rubbers may be used over other types of athletic shoes worn in different sports containing not only spikes but also cleats having edges of sufficiently sharp to penetrate the self-sealing rubber sole or sole and heel of the rubber overshoe, such as in hiking shoes, shoes used for mountain climbing, etc.

It is also obvious that the rubber overshoes may be made of different designs and may have different arrangements to open the rubber or overshoe other than the front zipper shown in the drawing to permit the overshoe or rubber to be readily and quickly placed upon the shoe without departing from the general spirit of the invention.

While I have mentioned self-sealing rubber for the soles and heels, I mean that term to be taken in the broad sense and to include synthetics of all kinds which have desirable self-sealing properties.

It is also within the scope of my invention to make my overshoe with the sole only of a self-sealing rubber while the rest of the overshoe may be of the well-known composition commonly used for "rubbers" or overshoes, or with the sole and heel of self-sealing rubber, or the entire sole, arch and heel of self-sealing rubber.

It is also obvious that certain changes and modifications may be made in the details of construction and arrangement of parts without departing from the main construction of my invention in using a self-sealing rubber for the sole and heel of the overshoe to permit penetration and removal of spikes or cleats and retain the waterproof properties of the overshoe.

I claim:

For use with a shoe having a plurality of ground gripping means projecting therefrom, an overshoe comprising an upper and a sole and heel portion, said sole and heel portion of a normally imperforate self-sealing rubber permitting penetration therethrough of said ground gripping means upon placement of said shoe within said overshoe, said sole and heel portion thicker than said upper and of a thickness less than the length of said ground gripping means whereby when said ground gripping means penetrate said sole and heel portion, the walls of the openings created by said ground gripping means exactly conform to the surfaces of said ground gripping means preventing moisture from coming in contact with said shoe and when said overshoe is removed from said shoe, the openings made by said ground gripping means will automatically seal themselves.

References Cited in the file of this patent

UNITED STATES PATENTS

2,260,138	Feinberg	Oct. 21, 1941
2,454,486	Stanton	Nov. 23, 1948