April 6, 1943. I. SABEL ET AL 2,315,874

GOLF SHOE

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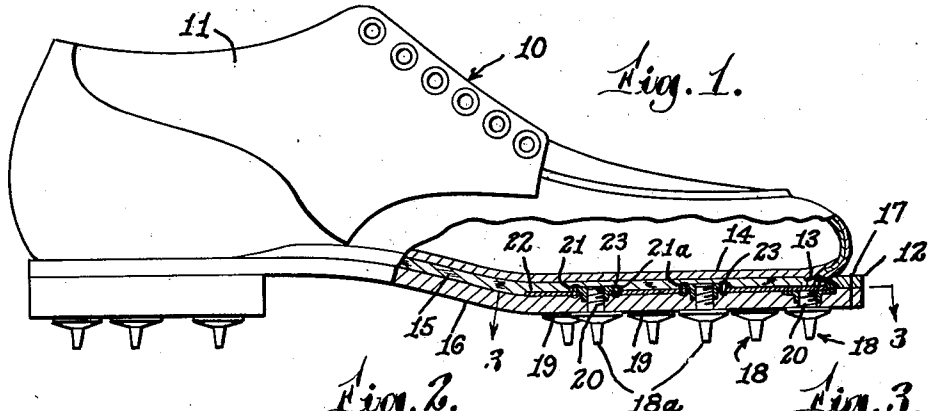


Fig. 1.

Fig. 2.

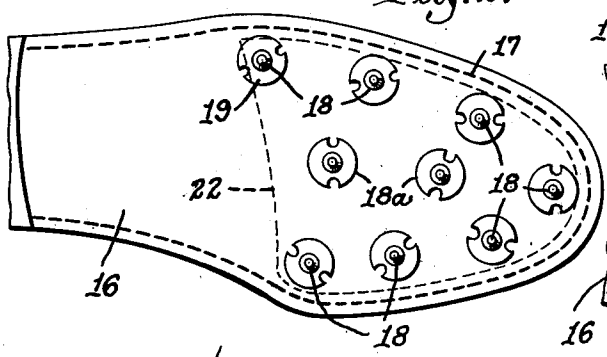


Fig. 3.

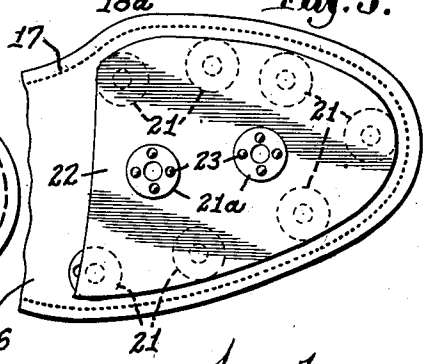


Fig. 4.

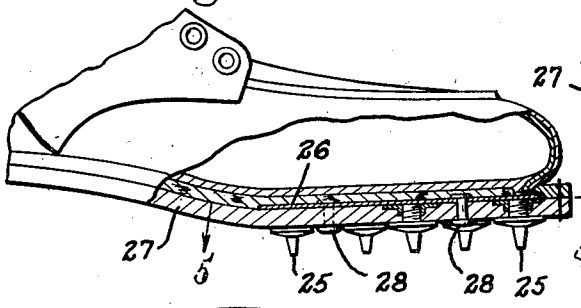
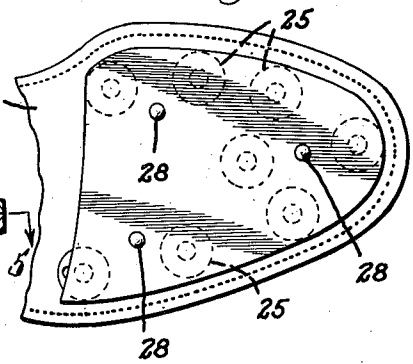


Fig. 5.



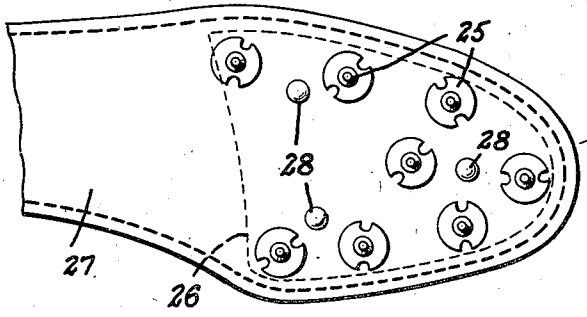


Fig. 6.

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GOLF SHOE

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3 Claims. (Cl. 36—2.5)

This invention relates to a golf shoe and more especially to a golf shoe or the like having spikes or calks attached to the outer sole thereof.

The usual calk for golf shoes is provided with an annular flange which abuts the bottom of the outer sole and a threaded stem which is sometimes screwed into the outer sole but more often is arranged to pass through the sole to be threaded into a disc-like nut or fastening element seated on the inner surface of the outer sole, the latter being clamped between the flange and nut of each calk.

We have found that, in golf shoes as heretofore constructed, there is a marked tendency of the outer sole to warp under the pressure of the calks, the edges of the soles curling upwardly and that there is a further tendency of the calks to tilt, these conditions being aggravated when the soles become damp through use in wet weather.

In addition, the construction of the usual golf shoe is such that the calks press upwardly into the filler and inner sole making the shoe uncomfortable to the wearer.

The general object of the present invention is to bring about a form of shoe wherein warping of the outer sole and tilting of the calks is avoided, and wherein there is no possibility of the calks or their fastening means pressing upwardly into the filler and inner sole and causing discomfort to the wearer.

A feature of the invention resides in a form of shoe wherein the above results are accomplished, but wherein the fore part of the shoe is left with the degree of flexibility necessary to the proper motions of the foot during walking and the swinging of a golf club.

To these and other ends, the invention consists in the novel features and combinations of parts to be hereinafter described and claimed.

In the drawing:

Fig. 1 is a side elevational view of a golf shoe in accordance with the invention, partly broken away to show details of the improved structure thereof;

Fig. 2 is a view of the bottom of the outer sole of the shoe shown in Fig. 1;

Fig. 3 is a sectional view taken along line 3—3 of Fig. 1;

Fig. 4 is a view similar to Fig. 1 but showing a modification;

Fig. 5 is a sectional view along line 5—5 of Fig. 4, and

Fig. 6 is a view of the bottom of the outer sole of the shoe shown in Fig. 4.

Referring to the drawing in which we have illustrated our invention by showing two preferred forms that the same may take and with special reference at present to that form of the invention shown in Figs. 1–3, inclusive, the reference numeral 10 indicates, in general, a golf shoe which, in this instance, is of the Goodyear welt type and includes an upper 11 turned in at its lower edges and secured to the welt 12 and lip 13 of the inner-sole 14 by the usual inseam stitches. The bottom of the inner sole is filled by the usual filler 15 and the outer sole 16 is fitted against the bottom of the inner sole and attached to the welt 12 by the usual stitches 17.

The calks, generally designated by the reference numerals 18, are herein each provided with an integrally formed flange or shoulder 19, seated against the bottom of the outer sole, and a stem 20 extending upwardly through the outer sole and threaded into a nut or fastening element 21 seated against the inside or upper face of the outer sole.

Interposed between the inner and outer soles, and thus between the nuts or fastening elements 21 and the filler 15, is a relatively thin flexible plate 22, preferably made out of fairly hard steel, the plate being shaped to correspond to the shape of the forepart of the outer sole and extending from the ball line up to the toe and transversely of the shoe substantially right up to the line of stitches joining the outer sole to the welt.

The calks may be placed at such points on the bottom of the forepart of the outer sole as desired, in this case there being a row thereof spaced inwardly from the marginal edge of the outer sole and extending around the sole from a point forwardly of the ball line, on one side of the sole, to the toe and thence along the opposite side to terminate just forward of the ball line. It will be noted that the plate 22 overlies or seats on the fastening elements 21 of each of these calks, that is to say, the plate is interposed between the calks and inner sole or filler, so that pressure on the calks will be transmitted to the plate rather than directly to the filler and inner sole.

There is also provided one or more calks 18*a* spaced inwardly from the remaining calks and near the center of the forepart, the two calks shown being spaced from one another substantially along the medial line of the forepart, and it will be noted that the stems of these two calks are threaded into fastening elements 21*a* secured to the plate 22 by rivets 23.

Inasmuch as the plate 22 is secured tightly to the sole by the calks 18*a*, the plate will prevent the sole from warping and, through the contact

of the fastening elements therewith, will prevent the calks from tilting. However, since the plate is not attached to the calks or sole, except at the central part thereof, the sole may be flexed during walking or the like, and the plate, upon bending, may slide over the inner surface of the sole to permit both sole and plate to flex readily. If all of the calks were fastened directly to the plate, the warping of the sole and tilting of the calks would be prevented, but such attachment of the calks would tie the plate to the sole substantially over the entire area of the plate so that there could be no sliding movement by the plate and sole. Under these conditions the forepart of the shoe would be extremely stiff and would not have that degree of flexibility necessary for easy walking and swinging of a golf club.

In the form of the invention shown in Figs. 4, 5 and 6, none of the calks **25** is attached to the plate **26**, but in this case the plate **26** is attached to the outer sole **27** by means of rivets **28**, the rivets **28** passing through the outer sole and plate. Three rivets are used in the form shown, these rivets being triangularly disposed with respect to one another and spaced inwardly from the marginal edges of the plate **26**, beyond the calks **25**. It will be apparent that the rivets permit sufficient relative sliding movement between the outer sole and plate to bring about the desired flexibility in the forepart of the shoe, while holding the plate tightly against the outer sole to prevent warping of the same or tilting of the calks, the fastening elements of which abut against the lower face of the plate but are not attached thereto.

While we have shown and described a preferred form of the invention, it will be readily understood that it is not to be limited to the details shown, but is capable of modification and variation within the spirit of the invention and the scope of the appended claims.

What we claim is:

1. The combination in a golf shoe of an outer sole including a forepart, a plurality of calks on said forepart, each calk having a stem extending upwardly through the sole, certain of said calks being positioned adjacent the marginal edges of the forepart and others of said calks being positioned near the center of the forepart, fastening elements at the inside of the outersole and cooperating with the stems to hold the calks on the outer sole and a relatively thin flexible metallic plate on the inside of the sole overlying all of the calks, the fastening elements for the calks near the center of the forepart being attached to the plate, the remaining fastening elements being unattached to said plate.

2. In a golf shoe, an outer sole having a forepart, a plurality of calks mounted upon the outer sole to project from the tread face thereof, at least a majority of said calks being disposed adjacent the marginal portion of the forepart of the outer sole, said calks having stems extending through the outer sole, fastening elements disposed at the inside of the outer sole cooperating with the stems to secure the calks to the outer sole, a relatively thin flexible metal plate on the inside of the outer sole engaging the stems of all of said calks and overlying the projecting portions of said calks, means disposed centrally of the forepart of the outer sole and within said marginally disposed calks for rigidly securing the plate to the outer sole, the aforesaid marginally disposed calks being detached from said plate.

3. In a golf shoe, an outer sole having a forepart, a plurality of calks mounted upon the outer sole to project from the tread face thereof, at least a majority of said calks being disposed adjacent the marginal portion of the forepart of the outer sole, said calks having stems extending through the outer sole, fastening elements disposed at the inside of the outer sole cooperating with the stems to secure the calks to the outer sole, a relatively thin flexible metal plate on the inside of the outer sole engaging the stems of all of said calks and overlying the projecting portions of said calks, at least one of said plurality of calks being disposed centrally of the forepart of the outer sole and having a stem projecting through the outer sole and secured to said plate for rigidly securing the plate to the outer sole, the marginally disposed calks being detached from said plate.

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