Sept. 8, 1925.

1,552,832

J. A. FARREN

RUBBER SOLE TREAD

Filed Jan. 25, 1922

Fig. 1

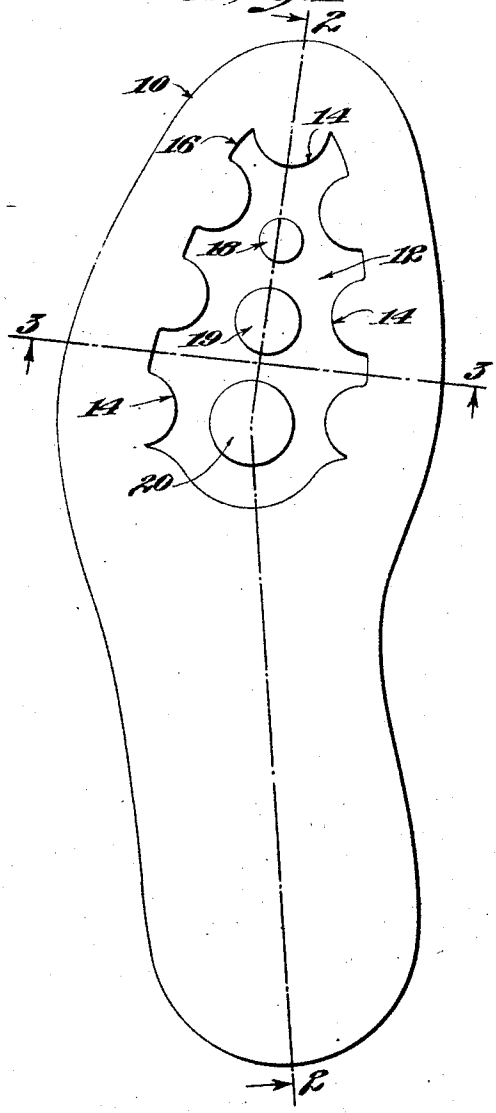


Fig. 2

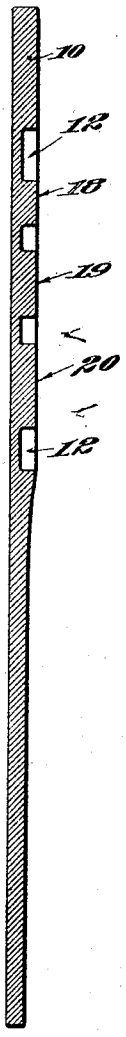


Fig. 3



Witness

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UNITED STATES PATENT OFFICE.

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RUBBER-SOLE TREAD.

Application filed January 25, 1922. Serial No. 531,712.

To all whom it may concern:

Be it known that I, JOSEPH A. FARREN, a citizen of the United States, residing at Newton, in the county of Middlesex and State of Massachusetts, have invented certain new and useful Improvements in Rubber-Sole Treads; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

The present invention relates to treads and more particularly to rubber sole treads embodied in sport shoes.

The object of the present invention is to provide a tread more particularly in connection with rubber soles which shall have the requisite wearing qualities, which affords a firm foundation for the foot, and at the same time shall effectually prevent slipping relative to the ground in any direction. In addition to the desired anti-slipping qualities, the present tread is free from depressions or recesses of a character which will cause caked mud to be picked up by the tread and carried by the wearer.

With this object in view a feature of the present invention contemplates the provision of a sole of rubber or rubber composition having an elongated recess of substantial depth formed in the ball portion and corresponding in contour generally to the outline of the ball portion of the sole. The edge of this recess consists of a series of circular projections connected by substantially straight portions to form a scalloped edge for the depression which effectually resists slipping in any direction, either lengthwise or transversely of the tread. Such a tread is particularly desirable in connection with golf shoes, where it has been found difficult to provide a form of tread which will firmly hold the feet in position during the swinging of the club, in this position one of the feet being partly tipped with the weight supported upon either the inner or outer edge of the tread. Located in the central portion of the tread are a series of flat-topped supporting plugs extending upwardly from the bottom of the depression and terminating at substantially the level of the outer edge of the tread, these plugs increasing in diameter from the toe toward the ball portion of the sole. This construction provides an ideal form of tread in that it furnishes the desired anti-slipping qualities which persist throughout substantially the entire life of the sole and at the same time avoids the very great objection incident to the use of separated recesses of one form or another which pick up cakes of mud and subsequently deposit these cakes of dried mud from the shoes of the wearer. In the present construction if mud collects in the elongated recess the flexing of the sole as the wearer walks causes the mud to be ejected from the recess almost immediately.

In the accompanying drawings illustrating the preferred form of the invention, Fig. 1 represents a plan view of a sole embodying the features of the invention; Fig. 2 represents a longitudinal section of the sole taken upon the line 2—2 of Fig. 1; and Fig. 3 is a cross section of the sole taken upon the line 3—3 of Fig. 1.

Referring to the illustrated embodiment of the invention it will be observed that a sole 10 of rubber or composition is provided in the tread face of the ball portion with an elongated recess 12 having the same general contour as the sole itself. The edges of this recess or depression are made up of a series of projecting circular portions 14 connected by slightly curved portions 16, the whole forming in effect a scalloped edge bounding each side of the recess. Located centrally of the recess and extending lengthwise of the sole are a series of flat top supporting plugs, indicated respectively at 18, 19 and 20 which increase progressively in diameter, the plug nearest the toe portion of the sole having the smallest diameter and the plug adjacent the ball line having the largest diameter. The tread faces of these plugs are at the level of the tread margin of the sole and serve to firmly support the foot of the wearer without interfering with the anti-slipping qualities of the recess 12. The recess or depression extends approximately half-way or more through the sole and accordingly the anti-slipping features of the sole persist throughout substantially the entire life.

It has been found in actual practice that a recess having a scalloped edge of this character is superior in its anti-slipping qualities to any other form of construction

now known and this ideal form of recess when coupled with the supporting plugs located therein provides a sole having the desired wearing and non-slipping features. At the same time the sole is of such a character that it does not mar the surface with which it contacts either when employed on the turf of a golf course or upon the rugs or floors of a house.

While it is preferred to employ the specific construction and arrangement of parts shown and described it will be understood that this construction and arrangement is not essential except so far as specified in the claim and may be changed or modified without departing from the broader features of the invention.

The invention having been described, what is claimed is:

A sole tread of rubber composition having an elongated recess of substantial depth formed in the ball portion and corresponding in contour generally to the outline of the ball portion of the sole, the side edges of the recess comprising a series of circular projections connected by substantially straight portions to form a scalloped edge, and a plurality of alined flat top supporting plugs gradually increasing in diameter from the toe toward the ball line of the tread and located in the recess and extending lengthwise thereof, the plugs being spaced a substantial distance from the side edges of the recess.

JOSEPH A. FARREN.