March 27, 1934. F. A. ROGERS 1,952,608

DETACHABLE SHOE SOLE

Filed March 28, 1933

Fig. 1.

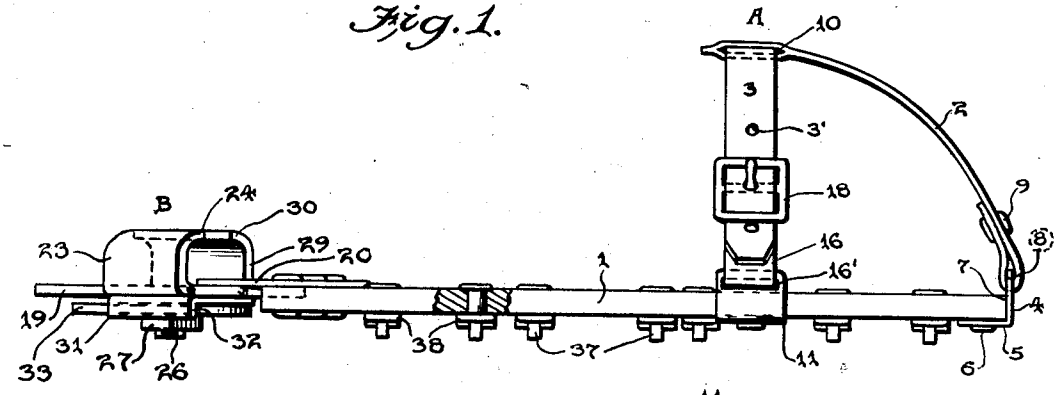


Fig. 2.

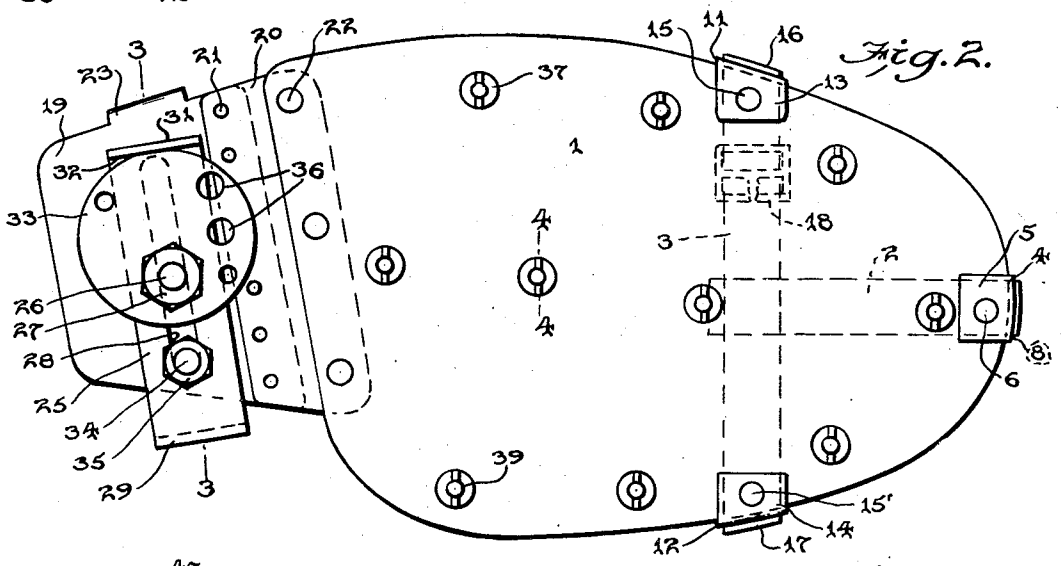


Fig. 3.

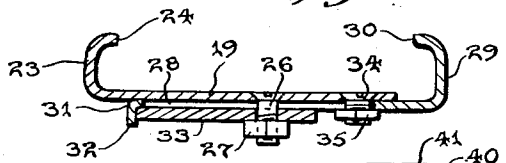


Fig. 4.

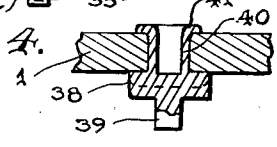


Fig. 5.

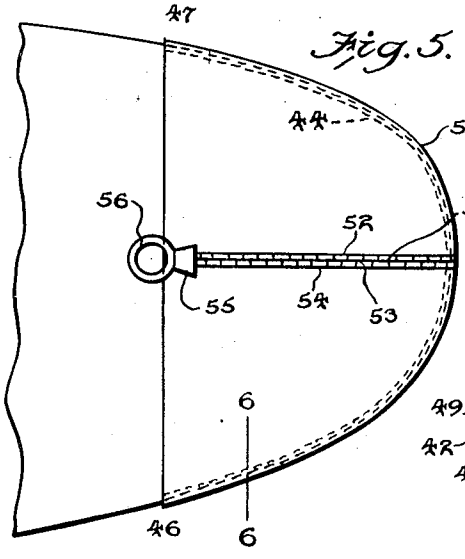
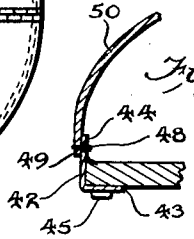


Fig. 6.



Inventor

Foreman A. Rogers,

By James M Earnest

Attorney

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DETACHABLE SHOE SOLE

Foreman A. Rogers, Auburn, Ala.

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3 Claims. (Cl. 36—7.7)

This invention relates to a detachable shoe sole structure.

In the playing of athletic games or the like wherein the use of anti-slipping devices associated with the footwear is necessary, considerable inconvenience has been experienced in that the customary practice has been to provide an additional pair of shoes having cleats or the like, to be used during participation in the athletic game. In golf playing, for instance, the player cannot in the nature of things wear the playing shoes to and from the course or in case an automobile is used, the cleats or spikes of the conventional sport shoe render the manipulation of the control pedals quite difficult. The present invention comprehends the use of a detachable shoe sole structure which provides all of the attributes of an athletic shoe or the like and which obviates the above and other difficulties experienced by those wearing shoes of the nature stated.

One object of the invention, therefore, is the provision of a detachable shoe sole structure which may be effectively secured to ordinary foot wear and which provides the advantages of a sport shoe or the like, without necessitating the removal of the ordinary foot wear.

Another object of the invention is to provide a detachable shoe sole structure of this character which is equipped with anti-slipping devices such as spikes, cleats, hobnails or the like, and which is adapted for use in athletic sports, such as golf playing and the like but which likewise may be used by miners, lumber-jacks, farm hands and various other laborers.

Another object of the invention is the provision of a detachable shoe sole structure which may be quickly applied and removed and which is provided with securing means adapted to fit shoes of different sizes.

A further object of the invention resides in the provision of a device of this character which is provided with a flexible cap portion adapted to secure the structure to the toe portion of the shoe of the wearer and to completely cover and protect the toe of the shoe.

A still further object of the invention lies in the provision of a detachable shoe sole structure which is of light weight, simple in construction, durable and efficient in operation and yet comparatively inexpensive of manufacture.

The novel features that I consider characteristic of the invention are set forth with particularity in the appended claims. The invention itself both as to its construction and use, together with additional objects and advantages thereof, will be understood from the following description when read in connection with the accompanying drawing, in which:

Figure 1 is a side elevation of a detachable sole constructed in accordance with the invention.

Fig. 2 is a bottom plan view of the same.

Fig. 3 is a transverse section of the clamping device taken on line 3—3 of Figure 2.

Fig. 4 is a transverse section taken on line 4—4 of Figure 2 and showing a preferred embodiment of the anti-slipping device.

Fig. 5 is a top plan view showing a modification of the invention, wherein a flexible cap is substituted in lieu of the flexible securing means shown in Figures 1 and 2.

Fig. 6 is a transverse section taken on line 6—6 of Figure 5.

Referring to the drawing in detail, wherein is shown in Figures 1 to 4, inclusive, a preferred form of my invention, 1 designates the detachable shoe sole which is made of a suitable flexible material such as leather or the like.

The detachable sole is adapted to be applied to ordinary footwear by flexible securing means A at the front portion thereof and rigid clamping means B at the rear portion thereof.

The flexible securing means A which serves to removably and adjustably secure the front portion of the detachable sole to the cap portion of the shoe of the wearer consists of a curved rearwardly extending flexible strap 2 and a curved flexible cross strap 3 associated therewith.

The outermost front edge portion of the detachable sole 1 is provided with a substantially right angled lug 4 having an inwardly directed flange 5 secured thereto by means of a rivet 6. The projecting end 7 of the lug is provided with a horizontally extending strap-receiving opening 8. One end of the flexible strap 2 is looped through the opening 8 of the lug 4 and then suitably secured as at 9 and the other end at its rear portion is provided with longitudinally extending slits such as shown at 10 for the reception of the curved cross strap 3.

The front portion of the detachable sole 1 is further provided with similar lug members 11 and 12 having inwardly directed flange portions 13 and 14, respectively, which are secured to the bottom of the sole 1 in any conventional manner, as by rivets 15 and 15'. The projecting ends 16 and 17 of the lugs 11 and 12, respectively, are provided with horizontally extending strap-receiving openings as shown at 16'. The flexible strap 3 has connection with these strap-receiving openings

and may be adjusted by means of the buckle 18 and the cooperating apertures 3' in the free end thereof.

It will be noted that by the arrangement of the flexible strap-securing means as described, the forward portion of the detachable sole may be effectively and securely held in operative position relative to the shoe of the wearer and that the securing means is readily adjustable to conform to the forward or cap portion of shoes of various sizes and contours.

The rear portion of the detachable sole 1 is adapted to be adjustably and removably secured to the shank of the shoe sole of the wearer by means of the clamping device B which comprises a stationary clamping hook, an adjustable clamping hook and means for adjusting the latter.

The stationary, rigid clamping member 19 is secured to a relatively flexible member 20 by rivets 21 or the like, which flexible member is secured to the rear portion of the detachable sole 1, as by rivets 22, but if desired, the interposed flexible member 20 may be dispensed with and the stationary clamping member mounted directly on the rear portion of the detachable sole. The stationary clamping member 19 is provided at one side edge thereof with an integrally connected, upstanding clamping hook 23, the upper portion of which has an inwardly directed lip portion 24. The clamping hook 23 is designed to embrace and hook over one edge of the shank of the shoe sole on which the detachable sole is worn. An adjustable clamping member 25 is secured to the stationary clamping member 19 by means of a bolt 26 and nut 27. The bolt passes downwardly through a suitable aperture in the stationary clamping member 19 and extends through the transversely extending opening 28 in the adjustable clamping member 25. The adjustable clamping member 25 is provided on one end with upstanding clamping hook 29, the upper portion of which has an inwardly directed lip portion 30. The clamping hook 29 is complemental with respect to the clamping hook 23 and is designed to embrace and hook over the opposite edge of the said shank portion. The other end of the adjustable member 25 is provided with a depending lug 31 forming an abutment 32.

A camming member which is shown in the form of an eccentric disk 33 is disposed beneath the lower side of the adjustable clamping member 25 and is adjustably and pivotally secured to the stationary clamping member 19 by means of the bolt 26 and nut 27. The camming member or eccentric disk 33 is adapted to revolve about its pivotal point to engage the abutment 32 of the adjustable clamping member 25 to impart an inward movement to the adjustable clamping member 25, thereby bringing the clamping hook 29 into clamping engagement with one edge of the shank sole.

In order to guide the adjustable clamping member 25 so as to prevent any appreciable amount of lateral movement when the clamping hook 29 is moved into clamping position, there is provided a bolt 34 which passes downwardly through a suitable aperture in the stationary clamping member 19 and extends through the transversely extending opening 28 in the adjustable clamping member 25 after which the nut 35 is applied. If desired, the bolt may be upset so as to lock the nut on the bolt.

The curved camming member or eccentric 33 is provided near its peripheral edge with a plurality of spaced openings 36 of varying size. It will be apparent that the nut 27 of the bolt 26 may be removed and the bolt inserted in any of the various openings 36 as may be desirable in order to regulate the length of throw of the curved camming member with respect to its pivotal point.

After the clamping hook 29 has been brought into engagement with the shank sole of the shoe so that the shank sole is securely held between the clamping hooks 23 and 29, the bolt 26 may be tightened to lock the camming member 33 in position to thereby hold the clamping hooks in operative position.

In the specific embodiment of the invention as shown, the bottom of the sole 1 is provided near its side and front edges with a row of anti-slipping devices or metallic cleats 37 and a third row extending longitudinally of the sole and being substantially equi-distant from opposite edges of the sole. The cleats 37 are so arranged that when viewed in either a longitudinally or transversely extending plane, they are in staggered relationship with respect to each other. As shown, these cleats comprise an abutment 38 having a depending cylindrical portion 39 and an upwardly extending hollow shank portion 40 which is passed through the sole from the outside of the shank and then riveted down upon the top of the sole, as shown at 41, to securely fasten the cleats in place.

When the device is placed upon a shoe, the riveted heads 41 of the shank 40 provide a frictional engagement with the shoe and serve to retard relative movement between the same.

In Figures 5 and 6, there is shown a modification of the invention which may be substituted in lieu of the flexible securing means A, for securing the front portion of the detachable sole to the cap portion of the shoe of the wearer as set forth in Figures 1 to 4, inclusive, it being understood, of course, that the modified flexible securing means is intended to be used in conjunction with the clamping structure B, as above described, for securing the rear portion of the detachable sole to the shank sole of the shoe.

As shown in Figures 5 and 6, the modification comprises an arcuate-shaped lug member 42 having an inwardly directed flange 43 and an upstanding flange 44, the former of which engages the forward portion of the detachable sole 1 adjacent its edge and is secured thereto by rivets 45 or the like, and the latter of which engages the outer edge of the detachable sole and projects beyond the top thereof. The arcuate-shaped lug member 42 extends from a point 46 on one side of the detachable sole adjacent its forward end clear around the tip thereof to an opposite point 47 on the other side of the sole.

The projecting flange 44 is provided with a plurality of perforations, as shown at 48, to facilitate the securing of the lower edges 49 of the cap portion 50 to the projecting flange 44, as by sewing thereby giving a neat and finished appearance to the article.

The cap portion 50 is provided with a longitudinally extending opening, which opening is adapted to be closed by means of a separable fastener comprising a fastener element 51 secured to one of the marginal edges of the opening as at 52 and a similar fastener element 53 in oppositely disposed relationship as at 54 and a cooperating slidable closure member 55 operable by the member 56, the device being commonly known as a "zipper".

It will be apparent that this device facilitates the ready application of the cap-securing means

to the toe portion of the shoe of the wearer, and that the cap in addition to providing a securing means, serves further to completely cover and protect the toe of the shoe against hard usage.

Although I have shown and described specific embodiments of my invention, I am fully aware that many modifications thereof are possible. My invention, therefore, is not to be limited or restricted except insofar as is necessitated by the scope of the appended claims.

What is claimed is:

1. A detachable shoe sole for athletic sports or the like, means for securing the front portion thereof to the forward portion of the shoe of the wearer, means for securing the rear portion thereof to the shank sole of the shoe, said last mentioned means comprising a stationary clamping member provided with an upstanding clamping hook, an adjustable clamping member carried on and by said stationary clamping member, said adjustable clamping member being provided on one end with a complemental upstanding clamping hook, and on the other end with a depending abutment, and a pivotally mounted camming member having engagement with said abutment for adjusting said adjustable clamping hook.

2. A detachable shoe sole for athletic sports or the like, said detachable sole being provided with a plurality of anti-slipping devices, means for securing the front portion thereof to the forward portion of the shoe of the wearer, means for securing the rear portion thereof to the shank sole of the shoe, said last mentioned means comprising a stationary clamping member having integrally connected thereto an upstanding clamping member, the upper portion of which has an inwardly directed lip, and an adjustable clamping member carried on and by said stationary clamping member, said adjustable clamping member being provided on one end with a complemental upstanding clamping hook, the upper portion of which has an inwardly directed lip and on the other end with a depending abutment, a pivotally mounted camming member having engagement with the said abutment, the arrangement being such that when the camming member is moved into extended position the shank of the shoe is effectively and securely held between said clamping hooks, and means, when this clamping engagement is thus effected, for holding the camming member in extended position, to thereby hold the said clamping hooks in operative position.

3. A detachable shoe sole for athletic sports or the like and having anti-slipping devices projecting from its lower face, means for securing the front portion of said sole to the forward portion of the shoe of the wearer, a relatively narrow transversely disposed element secured to the rear end of said sole and having its ends converging rearwardly, and means for securing the rear portion of said sole to the sole of the shoe of the wearer comprising a stationary clamping member secured to the rear edge of said narrow element and provided with an upstanding clamping hook, an adjustable clamping member provided on one end with a complemental upstanding clamping hook and on the other end having a depending abutment, and a cam device operable against said abutment to adjust the adjustable clamping hook, and means for securing the cam device in operative position after such adjustment has been made in order to maintain said adjustable hook in operative position on the sole of the wearer's shoe.

FOREMAN A. ROGERS.