

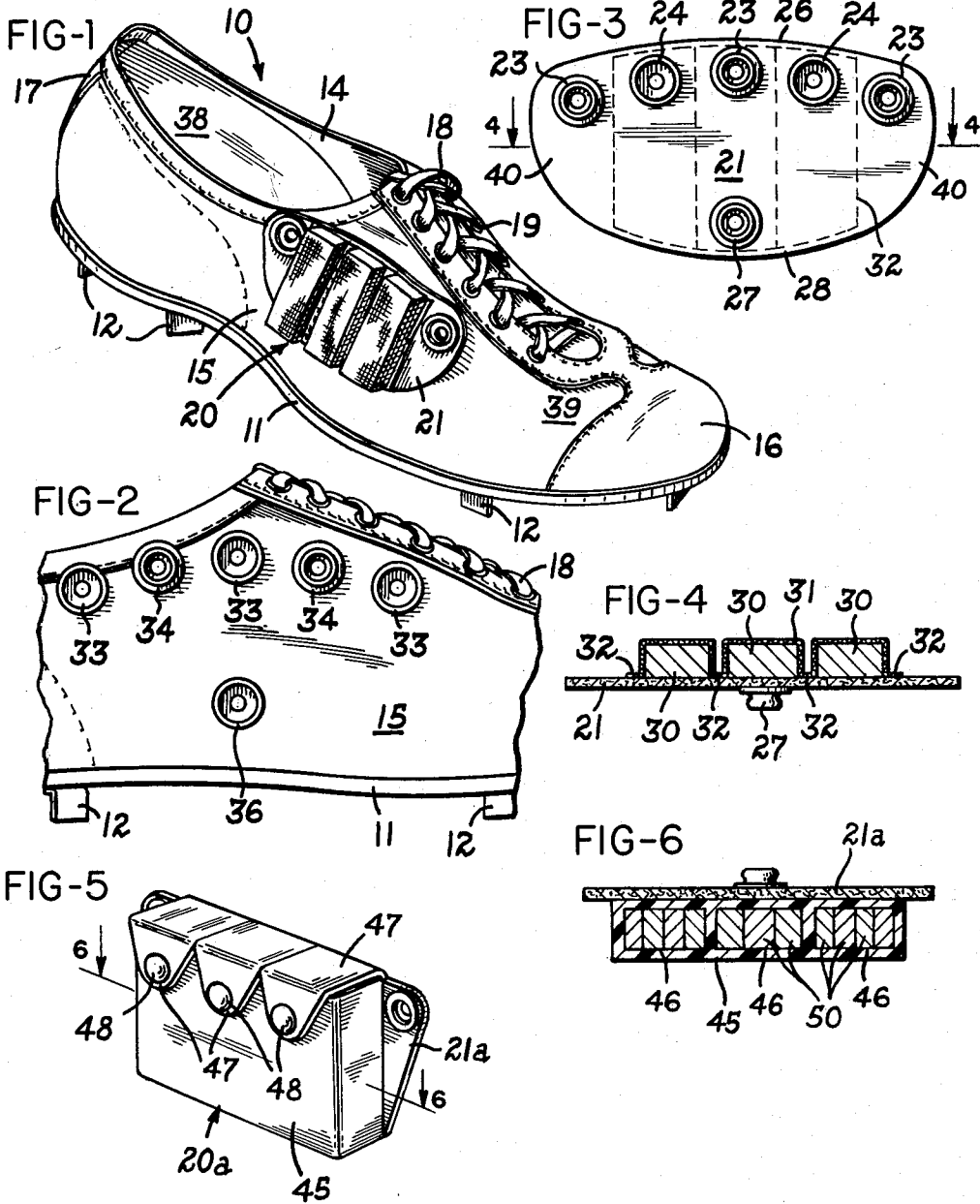
Dec. 24, 1963

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3,114,982

REMOVABLE WEIGHT FOR ATHLETIC SHOE

Filed Nov. 13, 1962



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3,114,982

REMOVABLE WEIGHT FOR ATHLETIC SHOE

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Filed Nov. 13, 1962, Ser. No. 237,240

6 Claims. (Cl. 36—2.5)

This invention relates to shoes, and particularly to weighted athletic shoes.

Athletes in training often employ weight devices for building their leg muscles so that they are capable of running with increased speed and power. Such devices are, however, generally limited to the gymnasium and are not suitable for use on the athletic field since the bulk involved makes them cumbersome and unwieldy. These weight devices are usually secured to the foot or leg of the wearer so that running or walking is not permitted or is greatly impaired, and substantial time is required to put on or take off the weight device. Additionally, exercising apparatus of this type is often expensive and completely separate from the athletic shoes worn during competition so that they cannot be worn simultaneously. They also do not readily permit adjustment in the weight thereof as required to avoid the muscle strain which may occur when too much weight is used at the beginning of training.

Accordingly, an important object of this invention is to provide improved apparatus for building the leg muscles which is free from the above disadvantages and which is quickly attached to and removed from a conventional athletic shoe.

Another object of this invention is to provide apparatus for securing a predetermined mass to an athletic shoe in such a manner that it will not affect movements of the wearer regardless of whether the mass is attached or removed, and particularly to provide apparatus of the aforesaid type which can be instantaneously removed from the shoe in such a manner that the shoe loses none of its properties and is capable of unrestricted competitive use.

A further object of the invention is to provide an inexpensive removable weight assembly for mounting on an athletic shoe which does not interfere with the wearer's activities during practice, and particularly to provide a device of the aforesaid type wherein the mass can be varied to allow a gradual increase thereof as the training progresses so that the wearer's leg muscles are gradually strengthened.

Other objects and advantages of the invention will be apparent from the following description and the appended claims.

In the drawing—

FIG. 1 is a perspective view of a conventional athletic shoe having the exercising weights secured thereon;

FIG. 2 is an enlarged fragmentary side view of the shoe shown in FIG. 1 with the weights removed;

FIG. 3 is an elevation view of the rear side of the weight holding pad illustrating the snap members thereon;

FIG. 4 is a sectional view taken essentially along the line 4—4 of FIG. 3;

FIG. 5 is a perspective view of another embodiment of the weight holding apparatus; and

FIG. 6 is a sectional view taken essentially along the line 6—6 of FIG. 5.

Referring to the drawings wherein a preferred embodiment of the invention is illustrated, FIG. 1 shows a baseball shoe 10 for the right foot comprising a sole 11 having attached thereto the cleats 12 which aid the wearer in obtaining traction as he maneuvers on the baseball field. In the usual manner, the sole 11 has sewn thereon the inner or left and the outer or right side walls 14

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and 15 which are attached to cooperate with the toe and heel portions 16 and 17 for surrounding the ankle of the wearer. The conventional laces 18 interconnect the holes 19 provided in the sides for the purpose of securing the shoe 10 to the wearer's foot in the usual manner. The various components of the shoe are preferably made of soft flexible leather although other known equivalents can be used without departing from the scope of the invention.

On the outer side wall 15 of the shoe is secured the weight member 20 which is utilized by the player during practice for exercising and building his leg muscles. This member includes an oval shaped base pad 21, preferably leather, having a plurality of male and female snap members 23 and 24, respectively, secured thereto along the top edge 26 substantially as shown in FIG. 3. The pad 21 also has an anchor snap member 27 secured along the lower edge 28 thereof.

Three weights 30 (FIG. 4) preferably of lead or other heavy material are secured to the base pad 21 by the cover member 31, preferably of a canvas material, which is sewed along the lines 32 to the base pad 21 to hold the weights 30 against movement. These weights have sufficient mass to give the wearer the necessary exercise, as well as a sensation that his feet are much lighter when the weight member 20 is removed. It is contemplated that weight members having different weights will be available so that various age groups may utilize the invention, and so that the amount of weight can be gradually increased from a very small amount to a comparatively large amount.

The complementary female and male snap members 33 and 34 are secured to the outer side wall 15 of the shoe 11 in a configuration similar to the arrangement of the members 23 and 24 on the weighted member 20, as shown in FIG. 2. Thus the snap members 23 and 24 are in alignment with the snap members 33 and 34, respectively, so that the pad 21 can be securely fastened to the shoe 10 by merely engaging these snap members. Likewise, the complementary anchor snap member 36 secured below the snap members 33 and 34 engages the snap member 27 for holding the lower portion of the base pad 21 to the shoe 10 although this connection does not support any substantial amount of weight since the snaps along the upper edge 26 of the pad 21 support the vertical weight of the member 20.

The weight member 20 is thus mounted on the shoe 10 between the heel receiving portion 38 wherein the ankle pivots and the toe portion 39 wherein the toes pivot with respect to the remainder of the foot so that the member 20 does not obstruct or interfere with the foot movement which occurs during running. Since the weight is on the outer side 15 of the shoe it does not project into the path of movement of the left foot which has a similar weight member on the outer or left side thereof. To remove the member 20 it is merely necessary for the wearer to grasp either of the side edges 40 and jerk this member from the shoe 10. The member 20 can be replaced on the shoe by aligning the various snap members and exerting the necessary pressure to engage these snaps. While the preferred embodiments of the invention utilize the aforesaid snap type fastening device, it is within the scope of this invention to use other fastening means for securing the member 20 to a shoe.

FIG. 5 illustrates another weight member 20a which is generally similar to that shown in FIG. 3 and is secured to an athletic shoe by snap members in essentially the same manner. However, the base pad 21a has secured thereto a semi-rigid housing member 45, for example made of a plastic material, having three compartments 46 therein as shown clearly in FIG. 6. Each of

these compartments is covered by a flexible tab 47 which is formed integrally with the base pad 21a and which has a female snap 43 on one end thereof for engaging an appropriate male snap, not shown, on the housing member 45.

Into each of the compartments 46 is inserted a plurality of elongated weight slabs 50 which completely fill the space therein so that the slabs are held against movement. The total mass in these compartments can be varied by merely lifting the cover tabs 45 and removing some of the slabs 50 and inserting wood fillers or the like to prevent relative movement of the remaining slabs. Thus only one set of the weight slabs is required by any one user, and he can initially use a relatively small mass therein and gradually increase the same as the leg muscles become stronger.

It is also within the scope of this invention to use weight materials that have different densities so that a wider range of masses are available for use with the invention. For example, slabs of aluminum could initially be used for creating a comparatively light weight member 20a whereas slabs of lead can be utilized for obtaining a relatively heavy weighted member. It is further contemplated that the embodiment shown in FIGS. 1-4 can be modified without departing from the scope of the invention to include the tabs 47 for permitting removal and replacement of the weights 30.

While the invention has been shown and described in connection with a baseball shoe, it is equally applicable to low cut football and basketball shoes, track shoes, golf shoes, and the like. Similarly, the invention can be adapted for use with conventional high top football, basketball, and tennis shoes without departing from the scope of the invention. It is, however, important that the weight member be affixed to the outer side of the shoe so that it will not obstruct running of the wearer, and likewise this member must be located in the shoe between the portion which contains toes thereof and the ankle to allow for unrestricted flexing of the foot.

While the form of apparatus herein described constitutes a preferred embodiment of the invention, it is to be understood that the invention is not limited to this precise form of apparatus, and that changes may be made without departing from the scope of the invention which is defined in the appended claims.

What is claimed is:

1. A removable weight attachment for a low cut ankle athletic shoe or the like having a sole with inner and outer side walls thereon for surrounding the ankle of the wearer comprising a base pad of flexible material having a plurality of first snap members thereon along the upper edge thereof, a plurality of weight supporting matable snap members adapted for mounting along the top edge of the outer side of the shoe for receiving said first snap members to secure releasably said base pad to the outer side of the shoe, means secured to said base pad for defining at least one enclosed pocket, and weights of predetermined mass in said pockets for adding to the weight of the shoe when said snap members secure said base pad to the shoe.

2. A removable weight attachment for an athletic shoe having a sole with inner and outer side walls thereon for surrounding the ankle of the wearer comprising a base pad of flexible material having a plurality of first snap members on one side thereof, a plurality of weight supporting complementary snap members adapted for mounting along the top edge of the outer side of the shoe for receiving said first snap members to secure releasably said base pad to the outer side of the shoe, fastening means for securing the lower edge of said base pad to

the shoe, and flexible means secured to the other side of said base pad defining enclosed pockets for receiving weights of predetermined mass to increase the weight of the shoe to build the leg muscles of the wearer when said snap members secure said base pad to the shoe.

3. A removable weight attachment for an athletic shoe or the like having a sole with inner and outer side walls thereon for surrounding the ankle of the wearer comprising a base pad of flexible material having a plurality of first snap members thereon along the upper edge thereof, a plurality of weight supporting matable snap members adapted for mounting along the top edge of the outer side of the shoe forward of the ankle and rearward of the toes when the shoe is being worn for receiving said first snap members to secure releasably said base pad to the outer side of the shoe, and means secured to said base pad and defining enclosed pockets for receiving weights of predetermined mass to increase the weight of the shoe when said snap members are engaged.

4. A removable weight attachment for an athletic shoe or the like having a sole with inner and outer vertical side walls thereon for surrounding the ankle of the wearer comprising a base pad of flexible material having upper and lower edge portions, fastening means for releasably securing at least said upper and lower edge portions of said pad on one of the side walls of the shoe forward of the ankle and rearward of the toes when the shoe is being worn, means on the other side of said base pad and defining enclosed pockets, and weights of predetermined mass in said pockets for adding to the weight of the shoe when said fastening means secures said pad to said shoe to aid in building the leg muscle of the wearer of the shoe.

5. A removable weight attachment for an athletic shoe having a sole with inner and outer side walls thereon for surrounding the ankle of the wearer comprising a base pad of flexible material having a plurality of first snap members thereon along the upper edge thereof, a plurality of weight supporting second matable snap members adapted for mounting along the top edge of the outer side of the shoe for receiving said first snap members to secure releasably said base pad to said side of the shoe, means secured to said base pad and defining at least one enclosure having an open top for receiving weights of predetermined mass to increase the weight of the shoe when said snap members are engaged, and cover members associated with each of said enclosures for closing said open tops to hold releasably said weights therein.

6. A removable weight attachment for an athletic shoe having a sole with inner and outer side walls thereon for surrounding the ankle of the wearer comprising a base pad of flexible material having a plurality of first snap members thereon along the upper edge thereof, a plurality of weight supporting second matable snap members along the top edge of the outer side of the shoe forward of the wearer's ankle and rearward of the toes when the shoe is worn for receiving said first snap members to secure releasably said base pad to said side of the shoe, means secured to said base pad and defining at least one enclosure having an open top for receiving weights of predetermined mass for adding to the weight of the shoe when said snap members are engaged, and cover members for each of said enclosures for closing said open tops to hold releasably said weights therein.

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