Nov. 8, 1966 B. J. STRUNTZ 3,283,424

BASEBALL SPIKE GUARD

Filed Feb. 13, 1964

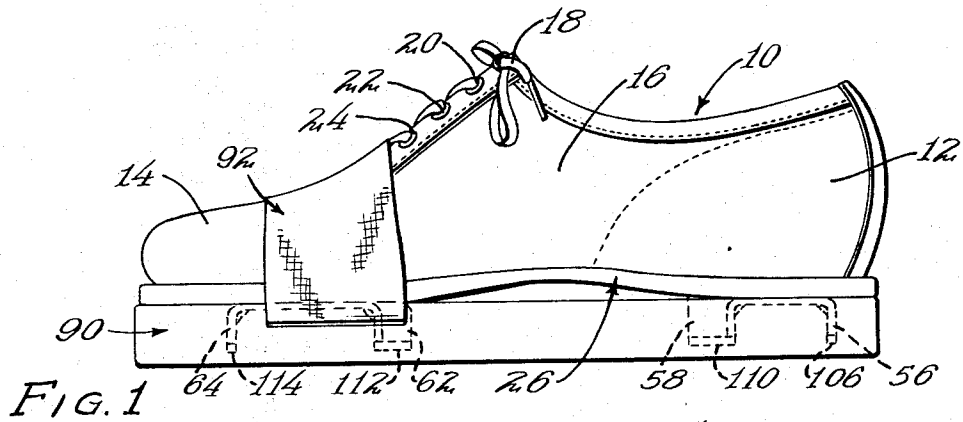


FIG. 1

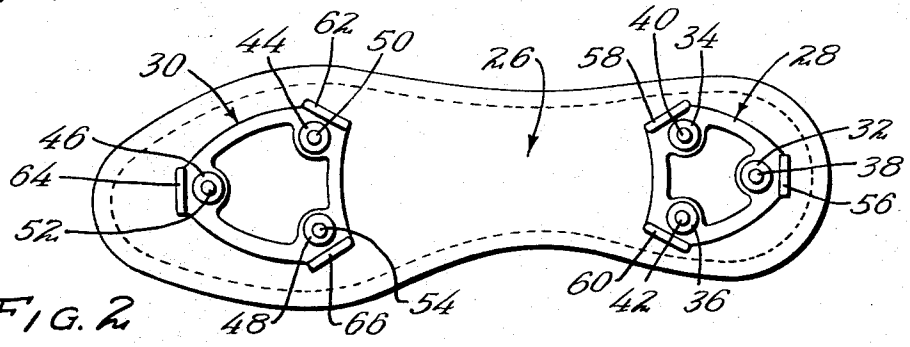


FIG. 2

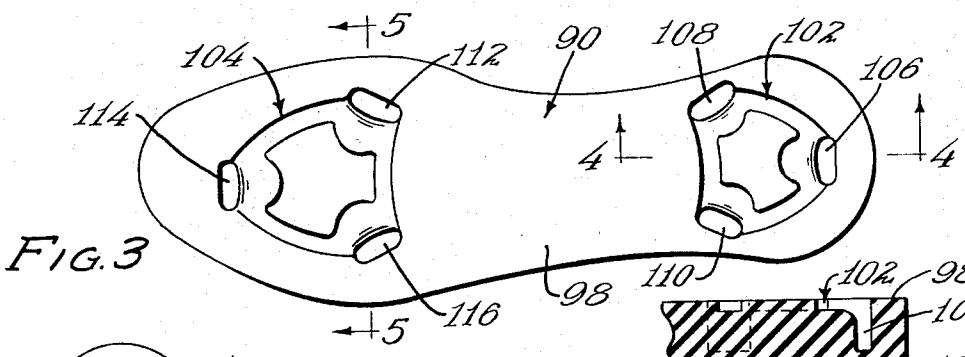


FIG. 3

FIG. 4

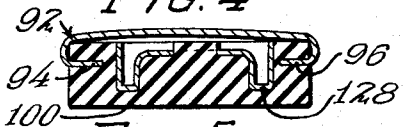


FIG. 5

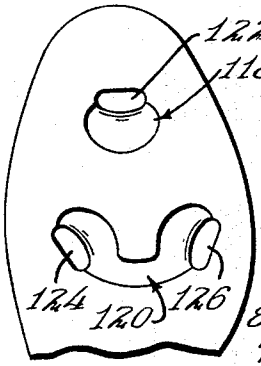


FIG. 7

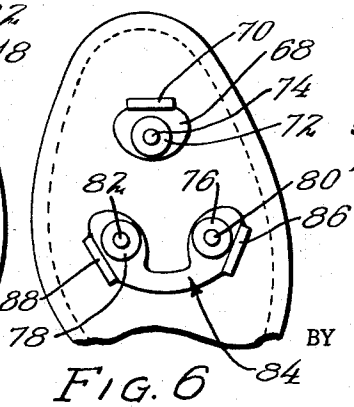


FIG. 6

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1

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BASEBALL SPIKE GUARD

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This application relates to a baseball spike guard designed to be worn in conjunction with a pair of baseball shoes when the player is not on the playing field.

Throughout the course of years many attempts have been made to develop means of protecting the spikes worn by baseball and football players from coming into contact with hard abrasive surfaces such as that of sidewalks, roadways, and the like. It will be understood that many baseball and football players find it necessary to either bring or wear their shoes in going to and from the playing fields. While it is always possible for the player to wear a pair of street shoes and to carry his sporting shoes separately, it is from a practical standpoint inconvenient and further raises the possibility that the shoes which are carried may be subject to being lost or stolen. For many youngsters and men the distances to be traveled between their homes and the playing fields necessitates either that they walk a considerable distance or that they use cars or other means of transportation to reach the playing fields. In the event that the player wishes to wear his playing shoes, some means must be provided to prevent the spikes from coming in contact with surfaces which would damage them. It will be further understood that the cost of procuring a pair of shoes suitable for sports necessitates the player preserving the spikes since otherwise the shoes are readily brought into a state of disrepair, or to a state where the spikes may be likely to become jagged and therefore dangerous to either the wearer or others with whom he plays.

I have found that although other protective devices have been devised, in general they do not provide the necessary flexibility, low cost, and accommodation in terms of foot-ease which the player requires. As an illustration, many young ball players wear their baseball shoes to school in order to be ready to take part in a game during school hours or after school. Obviously such a practice is frowned upon by the school authorities unless some means are provided of preventing the spikes of coming into contact with the school floors. Aside from this, the hard, unyielding spikes produce a particularly undesirable effect upon the feet and body of the shoe wearer due to the constant jarring.

It is the purpose of the present invention to provide a spike guard adapted to be worn in combination with the playing shoes which is of a relatively inexpensive nature, but which will provide the desired protection for the spikes.

It is a further object of the present invention to provide a spike guard which will provide a round contacting surface similar to that of regular shoes and through which the spikes are unable to penetrate.

It is a further object of the present invention to provide a spike guard having recessed portions to accommodate the spikes and spike plates whereby a particular cushioning effect is obtained by the wearer.

It is a further object of the present invention to provide a spike guard which may be readily donned or removed, and which by its construction is particularly

2

adapted to remain secured to the playing shoe until removal is desired.

I provide a baseball or other sport spike guards having spike wells registrable with the spikes of the playing shoe, the spike wells being particularly contoured so as to accommodate the spikes, and of sufficient length so that the compressive relation is obtained between the sole of the playing shoe and the cooperable spike guard sole which is in contact with the ground or other surface. Particularly I have found that a combination of material which is flexible and resilient and which has an outer surface which is durable and resistant to wear has the desired qualities for my invention. Combined with means to prevent the spikes from cutting through the resilient sole material and to spread the weight of the player from the ends of the spikes to the whole area of the sole, desired cushioning and protective effects are obtained.

I have found that my device may be manufactured at a relatively inexpensive cost, thereby becoming available to players of all ages resulting not only in protection of the spikes, but serving as a device to prevent damage to the foot from the otherwise repeated jarring occurring as the spikes strike a hard surface.

These and other advantages and particular objects will be more fully described in the accompanying specification taken in conjunction with the drawings herein in which:

FIGURE 1 is a side elevation of a playing shoe having spike plates from which spikes extend downwardly in guarded relation to my spike guard.

FIGURE 2 is a bottom plan view of the sole of a baseball shoe showing one form of common spike arrangement on the shoe.

FIGURE 3 is a top plan view of my spike guard adapted to accommodate the spike arrangement of the shoe of FIGURE 2.

FIGURE 4 is a longitudinal section taken along the lines **4**—**4** of FIGURE 3 particularly showing the recessed portions accommodating the spike plate and the spikes.

FIGURE 5 is a section taken along the lines **5**—**5** of FIGURE 3 illustrating the imbedded strap relation to the spike guard sole.

FIGURE 6 is a view of the front half of a baseball shoe sole having split spike plates.

FIGURE 7 is a top plan view of a spike guard portion adapted to accommodate the shoe portion of FIGURE 6.

The drawings disclose a playing shoe which for purposes of illustration will be described in terms of the conventional baseball shoe and which has been generally numbered **10**. It will be understood that the shoe may be of any conventional design and either in a high top model or in the oxford type as shown. The shoe has an upper portion comprising a heel **12**, a toe portion **14**, and an intermediate body portion **16**. The shoe is conventional in that it is normally secured to the foot of the player by lace **18** which is passed through eyes or eyelets such as **20**, **22**, and **24** and corresponding eyelets (not shown) on the other side of a tongue opening. Since the construction is that of any conventional shoe, it is not believed that further detail is required. Secured to the base of the upper by any suitable means presently employed such as stitching, gluing, and the like a sole generally numbered **26** is provided which extends from the toe to the back of the shoe. Secured to the under surface of the sole **26** spike plates are provided in any desired

arrangement. As is pictured in FIGURE 2, one present design of spikes provides a plate which interconnects the spikes. In the baseball shoe illustrated in FIGURE 2, I provide a spike plate at the heel portion of the sole generally numbered **28** and a second spike plate generally numbered **30** positioned at a point roughly corresponding to the ball of the foot or slightly forward thereof. The spike plates are held in secured relation to the sole of the shoe by rivets. In the view of FIGURE 2, the plate **28** is secured to the shoe by means of a rivet and washer arrangement, the washers being numbered **32, 34,** and **36,** and the rivets which extend through the washers to hold the plate **28** riveted to the sole **26** of the shoe being numbered **38, 40,** and **42.**

A similar construction is used on the front or toe plate as it is sometimes called, the plate **30** being held in secured relation to the sole **26** of the shoe by washers **44, 46,** and **48** to which rivets **50, 52,** and **54** cooperably extend into the sole of the shoe and which have terminal portions suitably spread so as to hold the plate tightly against the sole of the shoe. As it is believed that the means whereby the plate is secured to the shoe is comparatively well known, further description is not believed necessary.

From the spike plates cleats extend which are generally of a similar size and shape throughout the length of the shoe. In this connection it should be mentioned that it is understood that track shoes for example will only have cleats on the toe end portion of the shoe, whereas football shoes on the other hand may have cleats arranged in a variety of locations throughout the under surface of the sole. The views which are shown are believed to be sufficient however to disclose the purpose and scope of the invention, and it is not therefore been presumed necessary to describe other shoes and spike arrangements since the disclosure is believed adequate to cover such applications. The spikes shown on the rear plate **28** have been numbered **56, 58,** and **60;** the spikes of the toe plate **30** being numbered **62, 64,** and **66.** It should again be mentioned that the number of spikes which may be provided can be varied to accommodate particular desires of the player.

For this reason I have shown in FIGURE 6 a different form of spike arrangement which is known as a split plate type. In this model the plates are split to provide a slightly greater distance between the spike adjacent the toe end at the spikes which are situated beneath what would generally correspond to the ball of the foot. I have numbered the toe end spike plate **68,** and and it will be observed that it has a spike **70** which extends or projects from the plate **68.** The plate **68** is secured to the sole of the shoe by the rivet and washer arrangement previously described, the washer being numbered **72** and the rivet **74.** The ball plate and projecting spikes are similarly held to the sole of the shoe by rivet and washer arrangement, the washers being numbered **76** and **78** and their respective cooperable rivet being numbered **80** and **82,** these rivets and washers holding the ball plate generally numbered **84** and spikes **86** and **88** to the sole surface.

As will be appreciated the length of the spike will vary according to the particular sport in which the player is engaged, and my spike guard accordingly is designed to accommodate the spikes of a particular sport. In other words, due to the particular construction of my device, it is not believed possible for the spike guards used in baseball to accommodate football shoes, track shoes unless all of the spikes are made in exactly the same size and shape.

Turning now to FIGURE 3 I provide a spike guard for use in combination with the shoe of FIGURE 2. The spike guard shown in FIGURE 7 is designed to accommodate the shoe shown in FIGURE 6. My spike guard encompasses a sole member generally numbered **90** which is of the same length as the shoe on which it is designed

to be worn. The spike guard sole **90** is held to the shoe **10** by a strap generally numbered **92** shown in FIGURE 1 having its ends **94** and **96** imbedded in the sole **90** in spaced relation. The strap member **92** is designed to be of sufficient length to permit the toe of the shoe to be inserted beneath the strap. In the illustration shown in FIGURE 1, I illustrate an elastic strap which is sufficiently elastic so as to hold the spike guard sole tightly against the sole of the shoe **10.** In preferred construction the strap **92** should be of sufficient width so as to provide the necessary support for the spike guard sole. I have found that the width of the strap may be varied considerably and still accomplish its purpose. In addition I have found that a conventional strap and buckle will accommodate my purpose, but I show the elastic form because of the reduced cost which I have been able to secure through its usage. Further, the strap **92** at its point of securing may be actually molded into the spike guard sole or may be secured in any other suitable means. The strap **92** should be of sufficient width so as not to provide an undue restriction on any one portion of the upper foot. This construction is seen in FIGURE 1. In addition the elastic strap may be of slightly greater width at the bottom where it is secured to the spike guard sole in order to spread the support throughout a greater length of the sole.

Turning to FIGURE 3 the sole of the spike guard **90** as has been indicated should be of a length and width to correspond to the shoe with which it is to be worn. Further, from the standpoint of appearance, it is preferred that the sole **90** should conform to the peripheral contour of the shoe to which it is attached. Obviously, a spike guard sole which is wider or longer than its accompanying playing shoe will not interfere with the mechanics of my invention, but from an aesthetic viewpoint and from the likelihood of the wearer stepping on protruding portions or catching them upon objects, it is preferable if the spike guard sole be at least generally conformable in outline to the shoe sole.

To accommodate the spikes and spike plates, the upper surface **98** of the spike guard sole is recessed registrably with the plates and spikes. The under surface of the sole **100** is designed to be in engagement against the surfaces normally contacted by a shoe and accordingly should be of sufficient durability and long wearing capabilities so as to last for a considerable period of time as would be expected. In addition, however, the entire sole is required to be of a flexible nature. For this reason, I have found that various materials may be used to accommodate my purpose, among them being rubber, plastic, and combinations of leather and plastic, leather and rubber, and other obvious materials.

In preferred construction the thickness of the spike guard sole **90** is such that the length of the spikes is well accommodated within the recessed registrable portion of the sole. The sole **90** is preferably of a very resilient and flexible construction so that the sole will accommodate itself to the shoe to which it is secured as well as readily adapting to the various foot movements of the wearer. I have found that various materials such as sponge rubber provide the desired degree of resiliency, although combinations as previously described may be used.

To accommodate the spike plates, I show in FIGURE 3, a plate recess generally numbered **102** to accommodate the rear plate **28** of FIGURE 2 and a toe plate recessed generally numbered **104** to accommodate the toe plate **30** of FIGURE 2. I further provide spike wells **106, 108, 110, 112, 114,** and **116** to accommodate the respective spikes **56, 58, 60, 62, 64,** and **66** shown in FIGURE 2. As may be clearly seen in FIGURE 4 the spike well and plate recess are of sufficient depth to accommodate the plate or spike member which they serve to enable the spike guard sole to be in substantially face to face contact with the outer sole face **26** of the shoe. In addition, the plate recess **102** and spike well **106** of

FIGURE 4 should as nearly as possible conform to the shape and depth of the spike or plate member they serve in order that somewhat of a vacuum type effect is secured when the spike and plate are engaged in their respective recesses. This enables the cushion type spike guard sole to cling more snugly to the sole of the playing shoe which it accommodates. Further the depth of the spike well is of slightly greater length than the spike which it accommodates in order that the cushioning effect is obtained when the player places his weight upon that particular foot. In other words, the face to face contact of the spike guard sole with the playing shoe sole provides a broad base for distributing the player's weight. As the weight of the player comes in contact with the spike guard sole, the spikes are urged downwardly into their registrable spike wells until either the sole no longer compresses or until the spikes are prevented from progressing further into the well. Conversely as the weight is raised from a particular sole a cushioned buoyant effect is obtained so that the soles provide a cushioned effect as the foot strikes the ground and weight placed upon it and a resilient or spring like effect as the weight is shifted to the other foot. This is a particular advantage as the jarring effect previously encountered with other spike guard protective devices is thereby eliminated.

As may be seen in FIGURE 7, spike plate recesses generally numbered **118** and **120** are provided to accommodate the toe plate and ball plate respectively. Correspondingly, spike wells **122**, **124**, and **126** are provided to accommodate the spikes **70**, **88**, and **86**, respectively.

The construction is similar to that previously described for FIGURE 3.

I have found that a variety of construction is possible depending upon the weights of the players for whom the spike guard is designed. I have found for example as is illustrated in FIGURE 5 that supporting or bearing material may be provided in the recesses of the spike guard sole to protect against the cleats cutting through the spike guard sole. In this connection, I have found that it is advisable in certain instances to use bearing material against which the fins of the spikes will bear, the material being registrable with the extreme ends of the spike when the spikes are encased in their respective spike wells. If desired, the bearing material may extend upwardly throughout a portion of the spike well, or may extend throughout the length of the spike well substantially and be connected with an interconnected bearing portion adapted to overlay the plate recess. It will be obvious that this particular construction spreads the weight of the player over a greater width of surface that would otherwise be possible in addition to avoiding any possibility of the spikes cuttting through the spike guard sole.

Reviewing again this particular point, it will be apparent that as the weight of the player is placed upon a particular foot that the resilient cushion spike guard sole will be compressed. As the sole is compressed, the spikes of the player's shoe will be brought closer to the surface on which the foot is placed. For players of substantial weight the compression of the sole may be sufficient without the intervening bearing member to permit the spike end to cut or at least engage against the inner spike guard sole thereby tending to cut the sole as the spikes due to the player's weight are urged toward the ground or other surface. As previously indicated, I have found that it is possible to reduce the possibility of such an untoward occurrence by choices in the composition of the spike guard sole on the one hand, and by use of a bearing material which may be termed an insert member on the other. I have further found that usage of an insert member has the decided advantage of preventing careless players from unduly ruining the close fitting relation of the spike wells and plate recess to their spikes and plates. From the standpoint of length of service, I have found this point to be particularly desirable. Accordingly, the construction shown in FIGURE 5 illustrates the variation in insert to accommodate this need.

It will be further understood that without some means of distributing the player's weight throughout the surface of the sole, that the weight of the player would rest largely on the relatively small surfaces provided by the ends of the spikes themselves. While this is not particularly undesirable in the case of players of light weight, particularly where the composition of material used is sufficient to provide sufficient resistance to compressive effect to prevent the spikes cutting against the terminal ends of the spike wells, on the other hand as previously pointed out bearing material either at the terminal end point of the spike wells such as **128** or extending upwardly therefrom to enclose the spikes for the purpose previously described and to overlie the plate recess distributes the player's weight over a far greater area and protects the spike guard recesses from damage as well.

While I have set forth the best embodiments of my invention, I desire to have it understood that obvious changes may be made within the scope of the accompanying claims without departing from the spirit of my invention.

I claim:

1. A baseball shoe spike guard in combination with a baseball shoe having spikes comprising:

(a) a flexible spike guard sole member having substantially parallel upper and lower surfaces and an outer peripheral edge adapted to generally correspond to the outer peripheral edge of the baseball shoe to which it is adapted to be secured,

(b) said sole member being compressible and being comprised of compressible, resilient material adapted to flex and compress substantially in relation to the weight and foot movements of the wearer of the baseball shoe,

(c) said baseball shoe having a shoe sole,

(d) spike plates having spikes extending therefrom secured to said shoe sole,

(e) said spike guard sole member having preformed spike plate recesses and spike wells in its upper face corresponding in shape to the shape of said spike plate and spikes and registrable therewith, the outline of said spike plate recesses fitting snugly about the edges of their corresponding spike plates,

(f) said spike plate recesses being of a depth substantially equal to the thickness of said spike plates,

(g) said spike wells being of a depth substantially greater than the length of said spikes,

(h) whereby when a player wearing said spike guard places his weight on one foot, said compressible spike guard sole material is compressed to a point where the ends of said spikes terminate short of the ends of said spike wells, and

(i) whereby when said player's weight is shifted from said one foot to the player's other foot, said resilient compressible sole member urges said ends of said spike wells away from said spike ends, and thereby creates a partial vacuum in said spike plate recesses and spike wells to hold said spike guard sole member in position on said shoe sole, and

(j) strap means secured in overlying relation to said spike guard sole member adapted to overlie the upper portion of said baseball shoe.

2. The structure of claim **1** and in which said spike wells include bearing material disposed in said wells registrable with the terminal ends of said spikes whereby said spikes are supported in non-cutting relation to said spike guard sole.

3. The structure of claim **1** and in which said spike wells and said plate recesses include a shaped bearing insert overlying said adjacent wells and recesses, said insert being in closely fitted relation to spikes and plates accommodated in said wells and recesses, whereby said spike guard sole is protected against damage from said

spikes, and whereby weight of said player is displaced over a larger sole area.

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