D. J. GOLDEN.

SPORTING SHOE.

APPLICATION FILED AUG. 5, 1909.

938,843.

Patented Nov. 2, 1909.

2 SHEETS—SHEET 1.

Fig. 1.

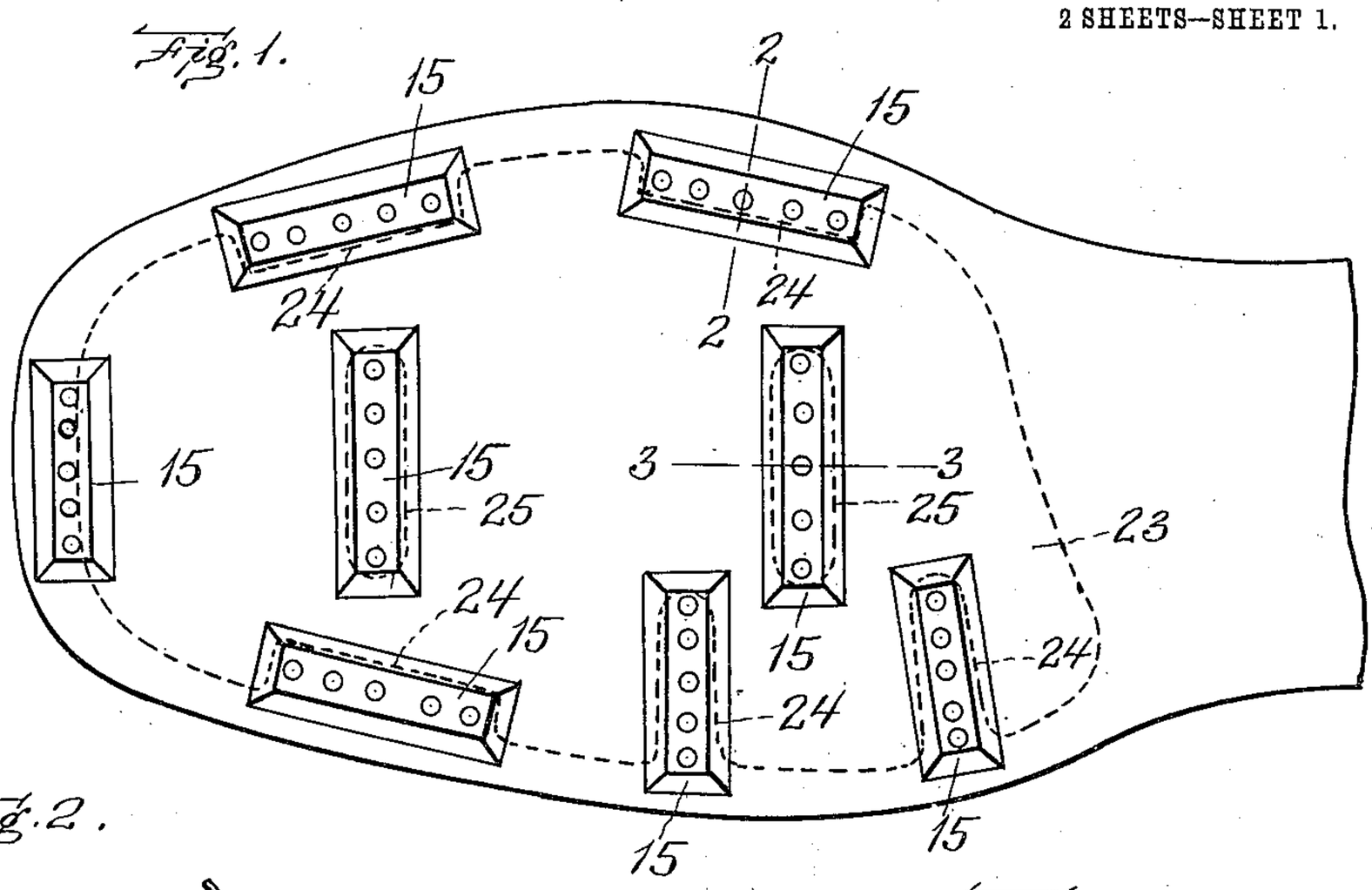


Fig. 2.

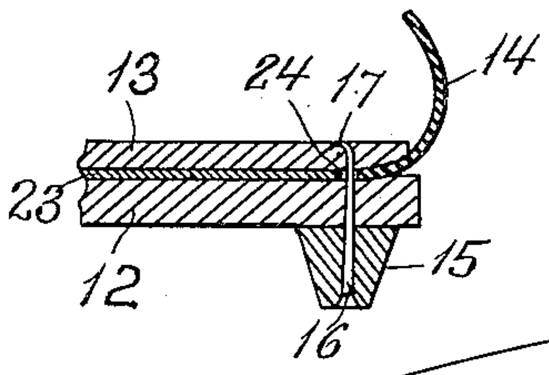
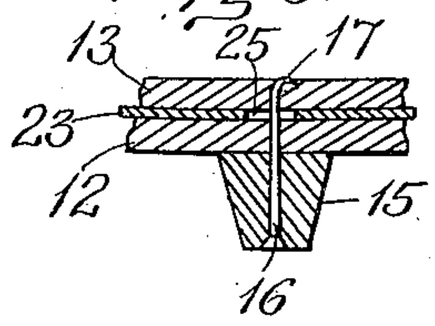


Fig. 4.

Fig. 3.



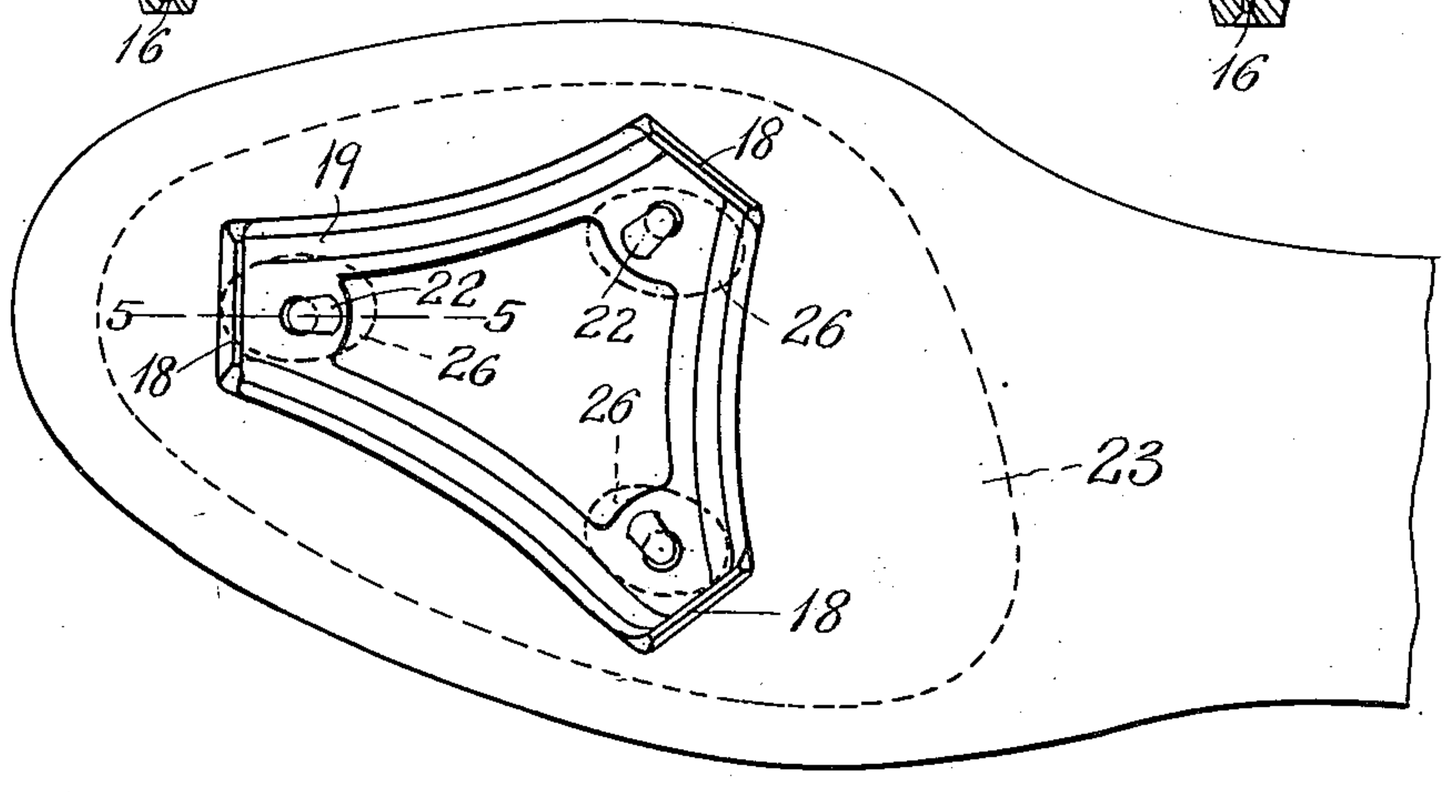
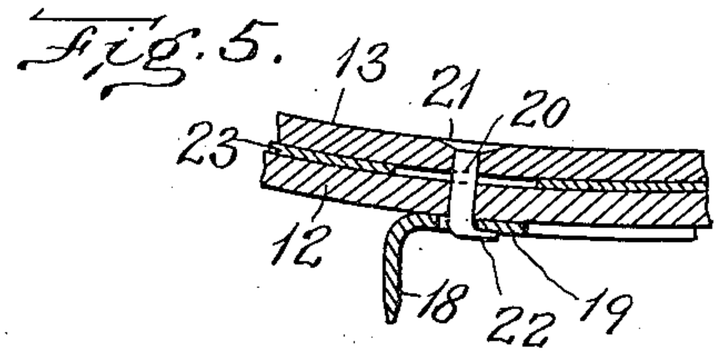


Fig. 5.



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2 SHEETS—SHEET 2.

Fig. 6.

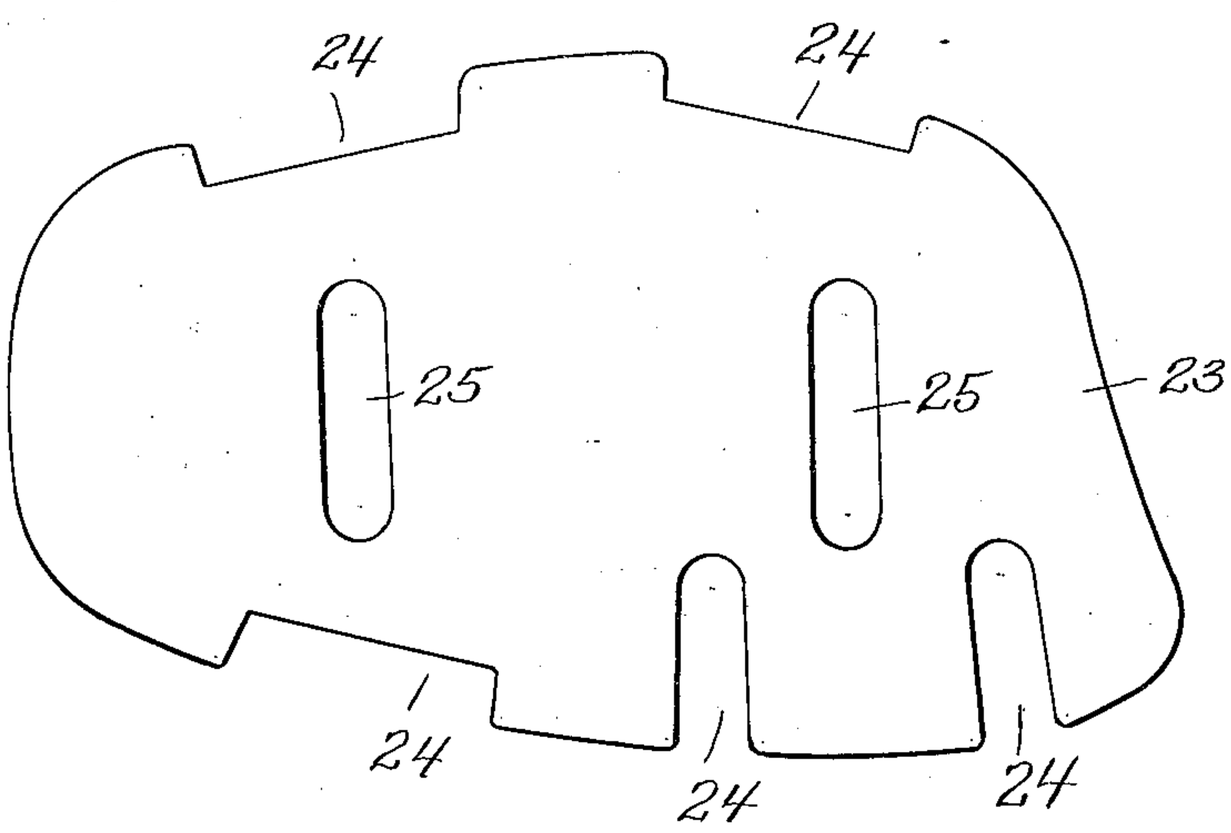
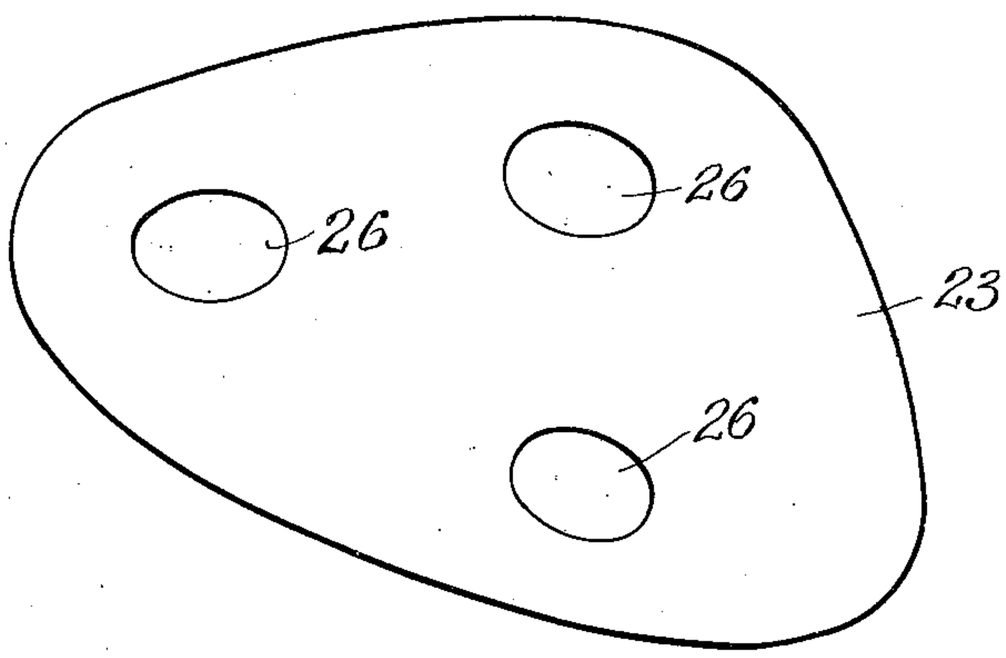


Fig. 7.



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UNITED STATES PATENT OFFICE.

DANIEL J. GOLDEN, OF RANDOLPH, MASSACHUSETTS.

SPORTING-SHOE.

938,843. Specification of Letters Patent. Patented Nov. 2, 1909.

Application filed August 5, 1909. Serial No. 511,389.

To all whom it may concern:

Be it known that I, DANIEL J. GOLDEN, of Randolph, in the county of Norfolk and State of Massachusetts, have invented certain new and useful Improvements in Sporting-Shoes, of which the following is a specification.

This invention relates to a shoe, the tread surface of the outer sole of which is provided with protuberances adapted to indent the ground and prevent slipping, the protuberances being usually leather cleats in football shoes, and metallic prongs in baseball shoes. These protuberanees require to be firmly attached to withstand the strains incidental to the use of the shoe, and to this end they are secured by fastening members passing through both the outer and inner soles of the shoe.

In a football shoe the fastening members are usually headed nails driven through the cleats and through the two soles, the heads bearing on the outer surfaces of the cleats and their points being clenched upon the inner surface of the inner sole. In a baseball shoe the fastening members are usually headed rivets passed through the two soles, the heads of the rivets resting on the inner surface of the inner sole, while their outer ends are upset upon a base plate on which the prongs are formed. Heretofore, the construction has been such that pressure exerted on the protuberances has been transmitted through the two soles in such manner as to cause the inner surface of the inner sole to bulge inwardly, forming raised portions in contact with the wearer's foot, these being a source of discomfort to the wearer.

My invention has for its object to obviate this objection and prevent the inner surface of the inner sole from being bulged inwardly.

The invention consists in the improvements which I will now proceed to describe and claim.

Of the accompanying drawings, forming a part of this specification,—Figure 1 represents a view of the forepart of the bottom of a football shoe embodying my invention. Fig. 2 represents a section on line 2—2 of Fig. 1. Fig. 3 represents a section on line 3—3 of Fig. 1. Fig. 4 represents a view of the bottom of the forepart of a baseball shoe embodying my invention. Fig. 5 represents a section on line 5—5 of Fig. 4. Figs. 6 and 7 represent plan views of the pressure-supporting plates hereinafter referred to, the plate shown in Fig. 6 being used in a football shoe, while the plate shown in Fig. 7 is used in a baseball shoe.

The same reference characters indicate the same parts in all the figures.

In the drawings,—12 represents the outer sole, and 13 the inner sole of a sporting shoe of the usual or any suitable general construction, the soles being connected with each other and with the upper 14 in any suitable way.

The tread face of the outer sole is provided with protuberances adapted to engage the ground and give the wearer a secure foothold, the protuberances in the case of the football shoe being cleats 15 usually of sole leather attached by headed nails 16 driven through the cleats, the outer sole, and the inner sole, the points of said nails being clenched at 17 on the inner sole, their heads engaging the outer portions of the cleats.

In a baseball shoe, the protuberances or prongs are flanges 18 formed on a skeleton base plate 19 which bears on the tread face of the outer sole, and is attached by rivets 20 passing through the two soles and the base plate 19, and having heads 21 which bear on the inner face of the inner sole, the outer ends of the rivets being upset to form enlargements 22 bearing on the outer side of the base plate 19.

The constructions above described are common and well-known.

In carrying out my invention, I interpose between the outer sole 12 and the inner sole 13 a thin flexible plate 23 preferably of sheet steel, the plate being of smaller area than the soles, so that its margin is within the fastenings which secure the soles to each other, and to the upper. The plate 23 is provided with a plurality of openings through which the fastening members which secure the above described protuberances are adapted to pass, the area of the openings being considerably greater than the space occupied by the fastening members, so that when said members are inserted, they pass through the openings without obstruction by the plate. The openings are so formed that the portions of the plate which constitute the margins of the openings are in relatively close proximity to the fastening members, and are so located as to support pressure exerted on the protuberances, and prevent such pressure from being transmitted

through the protuberances and the fastening members to the inner sole, and also to prevent the inner ends of the fastening members from being raised above the inner surface of the inner sole.

In a football shoe, the plate 23 is preferably of the general form shown in Fig. 6, and by dotted lines in Fig. 1. Some of the openings in said plate are recesses 24 formed in the margin of the plate, while other openings are slots 25 formed in the body of the plate and surrounded by the material thereof, the openings being arranged to conform to the predetermined position of the cleats 15. Said cleats may have any desired arrangement, and as shown in Fig. 1, some of them are arranged substantially parallel with the margin of the outer sole, while others extend crosswise of the sole.

In attaching the cleats 15, the workman may be guided by marks formed on the tread surface of the outer sole, said marks indicating the positions of the openings 24 and 25, so that the nails 16 may be driven through the two soles without liability of obstruction by the plate 23.

The plate employed in a baseball shoe shown in Fig. 7 and by dotted lines in Fig. 4, is in this embodiment of the invention provided with elliptical openings or orifices 26 which are arranged to coincide roughly with the rivet holes in the base plate 19, so that the fastenings may be passed through said openings without contact with the plate, the portions of the plate forming the margins of the openings being in relatively close proximity to the rivets and adapted to support the portions of the outer sole against which the prongs 18 bear.

It will be seen that in each of the above described constructions, the plate 23 provides a firm and practically unyielding support for the portions of the outer sole on which the protuberances bear, so that pressure exerted on said protuberances cannot be transmitted through them to the inner sole, and cannot cause the inner surface of the inner sole to bulge inwardly or force the fastening members inwardly above the inner surface of the inner sole.

The plate 23 should be sufficiently resilient to give the bottom of the shoe the required flexibility.

I claim:

A shoe of the character stated having an outer sole, an inner sole, protuberances bearing on the tread face of the outer sole, fastening members extending through both soles and attaching the said protuberances thereto, and an intermediate flexible pressure-supporting plate interposed between the two soles, and having openings arranged to receive the fastening members, the area of the openings being greater than the space occupied by the fastening members, to permit the insertion of the latter without contact with the plate, and the portions of the plate forming the margins of said openings being adapted to resist inward pressure exerted through said protuberances and fastening members.

In testimony whereof I have affixed my signature, in presence of two witnesses.

DANIEL J. GOLDEN.

Witnesses:

ARTHUR H. BROWN,

P. W. PEZZETTI.