July 12, 1932. R. H. JOHNSON 1,866,598

ADJUSTABLE AND REMOVABLE METATARSAL PAD

Filed Nov. 18, 1927

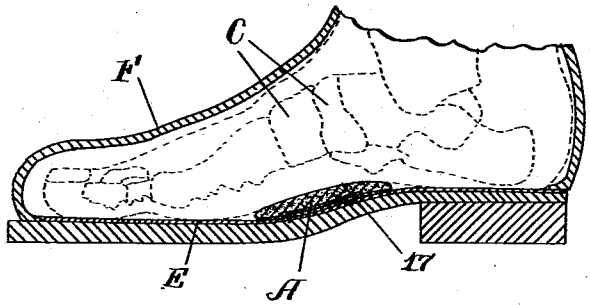


Fig. 1.

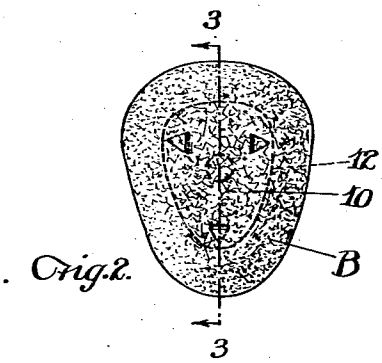


Fig. 2.

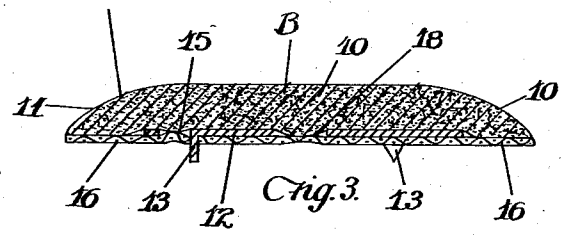


Fig. 3.

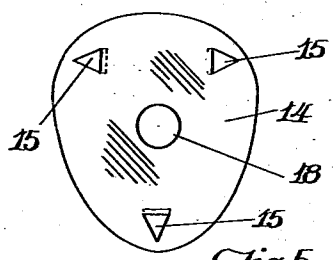


Fig. 5.

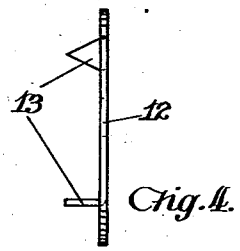


Fig. 4.

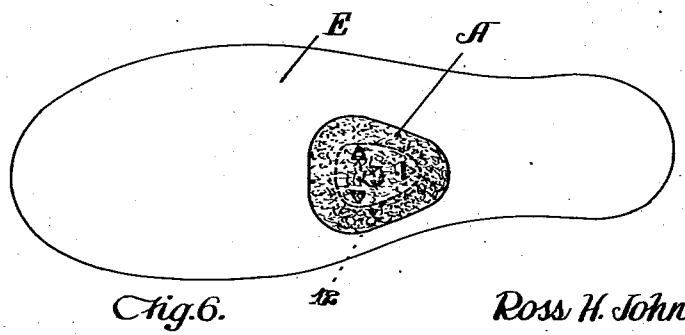


Fig. 6.

Inventor

Ross H. Johnson

By Howard Pracke

Attorney

Patented July 12, 1932 1,866,598

UNITED STATES PATENT OFFICE

ROSS H. JOHNSON, OF CHICAGO, ILLINOIS

ADJUSTABLE AND REMOVABLE METATARSAL PAD

Application filed November 18, 1927. Serial No. 234,195.

My invention relates to an adjustable and removable metatarsal pad, the primary object of which is to provide a pad of a simple, inexpensive nature which can be placed within the shoe in proper position to support the metatarsal bones and muscles of the foot.

A feature of my invention resides in providing a pad which can be made up economically and which is formed with piercing points projecting from the under side of the same which are adapted to engage in the inner sole of a shoe to hold the metatarsal pad in proper position. These engaging points permit the pad to be held firmly in place yet permit it to be easily removed. This is an important feature of my invention because these metatarsal pads are made of a felt or wool-like material and when they become impregnated with perspiration it is desirable to change the same for a new pad.

My invention includes a metatarsal pad having a cushion made of felt, wool, or other suitable substance with the side edges beveled off in a manner to slope toward the outer periphery of the same, while the center portion curves upward to form the body of the pad. I provide a plate of thin sheet metal on the under side of the pad and by a suitable flexible means the plate is held in central position beneath the body of the pad and this plate is provided with piercing points which project downward in a manner to readily engage the inner sole of a shoe to hold the pad in place.

These features, together with other details and objects of the invention will be more clearly and fully set forth in the specification and claims.

In the drawing forming part of my specification:

Figure 1 is a sectional side view of a shoe illustrating diagrammatically the foot within the same and my metatarsal pad in the position it would assume in use.

Figure 2 is a plan view of my pad.

Figure 3 is an enlarged section on the line 3—3 of Figure 2.

Figure 4 is a side view of the attaching plate.

Figure 5 is a plan view of the same.

Figure 6 is a diagrammatic outline of the sole of a shoe illustrating my metatarsal pad in plan view placed in the approximate position that it would assume in use.

My metatarsal pad A is of a very simple, inexpensive construction having a body portion B formed of felt or a wool pad with an upwardly projecting central portion 10 and a side beveled peripheral edge 11 extending about the same.

The pad A is of any suitable thickness and of such a shape as illustrated in Figure 2 or any other suitable shape best adapted to the formation of the foot. The pad A is adapted to form the supporting means for the metatarsal bones C of a human being's foot and by using my adjustable removable metatarsal pad A the person can adjust the same within the shoe at a point or place which feels most comfortable.

I provide a particular means for holding my metatarsal pad A which includes a metal plate 12 having depending piercing points 13. This plate 12 is of a thin sheet material very light in weight and the piercing points 13 are cut out of the body portion 14 of the plate 12, leaving the openings 15 where the piercing points 13 have been cut from the body 14.

The plate 12 is held to the bottom of the pad A by means of the flexible portion 16 which extends over the entire bottom of the pad A and which is sealed securely to the under side of the pad A in a manner to hold the plate 12 in approximately a central position with the piercing points 13 extending through the flexible member 16.

The flexible or textile strip 16 is adapted to extend through the openings 15 and engage with the under side of the pad A, thus providing an attaching means to assist in holding the plate 12 in position in relation to the pad. I also provide a central opening 18 in the plate 12 so that the textile material 16 may press up and meet the under side of the body 10 of the pad A, thus firmly and securely attaching the plate 12 in a fixed position, virtually equally spaced from the outer periphery so as to position the plate beneath the body 10 of the pad.

The plate 12 has a rigid construction when it is formed of metal and this provides just the right amount of stiffening to the pad A. The felt B of the pad A is soft so as to fit into the arch 17 of the foot beneath the metatarsal bones C and the holding means 16 is of a flexible nature so that the plate 12 provides the necessary rigidity to the pad A to make a more practical and more desirable metatarsal support.

In this manner I provide a metatarsal pad A having a flexible felt body B of a soft pliable nature adapted to form the desired support to the muscles and bones of the foot in a shoe and having a firm rigid back formation in the plate 12 which provides the proper rigidity and holding means for holding the pad A adjustable and removable to the inner sole E of the shoe F. I have found that my metatarsal pad A is of a very desirable nature as it overcomes the objectionable features of metatarsal pads which are glued to the inner sole so that they cannot be removed or adjusted, and by the inexpensive, simple construction I provide a metatarsal pad which is easily replaced by a new pad when the old one becomes soiled, or it can be easily adjusted by the user so as to place it in the most comfortable position within the shoe. This is a very marked feature of advantage in my invention.

In accordance with the patent statutes I have described the principles of operation of my metatarsal pad and while I have illustrated a particular formation, construction and arrangement of the parts, I desire to have it understood that the same is only illustrative of a means of carrying out my invention and that the same may be applied to uses other than those above set forth without departing from the spirit of my invention but within the scope of the following claims:

I claim:

1. A metatarsal pad including, a felt body portion, a plate adapted to be positioned against the back of said body, securing means for holding said plate to said body portion, and piercing points formed on said plate by bending down cut portions from the body of the plate, leaving apertures through which the securing means may be further secured to the body portion.

2. A metatarsal pad including a soft body portion, a plate adapted to be secured to the back of said body portion, piercing points formed in said plate remote from the edge of the same, and bent in a manner to project therefrom, apertures formed in said plate by the bending of said points, and a textile covering securing said plate to said body, secured to said body portion about said plate and through said apertures.

ROSS H. JOHNSON.