

April 16, 1929.

G. A. ERNST

1,709,253

FOOT ARCH SUPPORT

Filed May 16, 1928

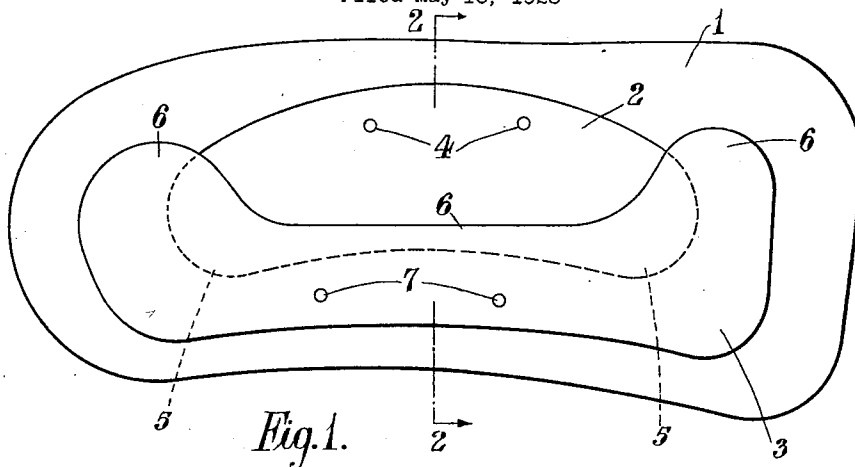


Fig. 1.

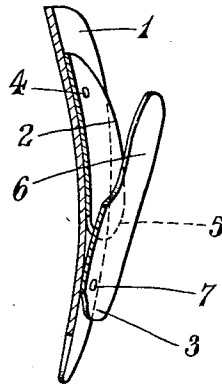


Fig.2.

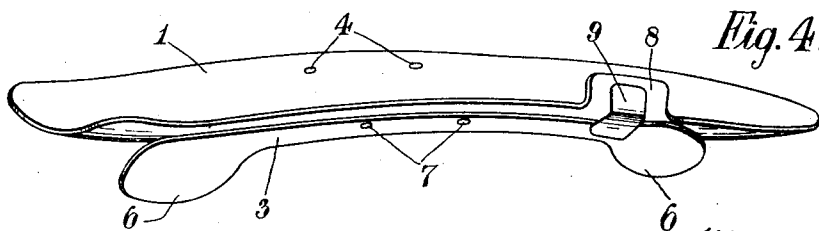
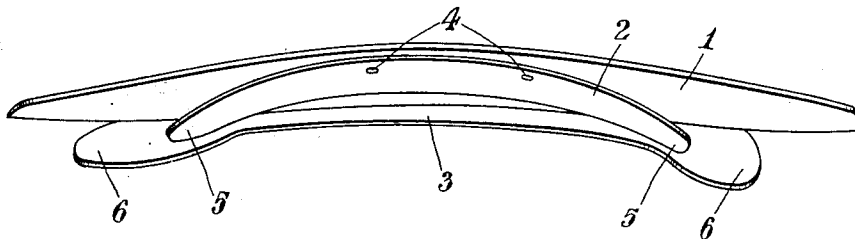


Fig. 4.

INVENTOR
G. A. ERNST
BY *W. M. Mire* ATT.

UNITED STATES PATENT OFFICE.

GEOFFREY ADDEMS ERNST, OF LONDON, ENGLAND.

FOOT-ARCH SUPPORT.

Application filed May 16, 1928, Serial No. 278,110, and in Great Britain June 21, 1927.

This invention relates to foot-arch supports and has for its object the production of a foot-arch support which is simple and efficient and can be inserted into, or removed from, any boot or shoe easily and as a complete unit.

According to the present invention the support consists of a leather or other suitable foot-piece on the underside of which are mounted two arched, spring metal plates. The two plates are separately secured at their outer edges and near the centres thereof to the foot-piece, the inner edges of the plates being free and overlapping so that one plate is resiliently supported by the other.

In a modification the foot-piece is provided with an upwardly projecting lip or flange on the outer side near the heel end thereof. Such a lip or flange per se is not new in foot-arch supports.

My invention is illustrated in the accompanying drawings, in which:—

Fig. 1 is an underplan view of a foot-arch support made in accordance with my invention;

Fig. 2 is a section on the line 2—2 of Fig. 1;

Fig. 3 is a front elevation of Fig. 1; and

Fig. 4 is a perspective view of a modified form showing the upwardly projecting lip or flange.

Like references denote like or similar parts in all the figures of the drawing.

In these drawings 1 denotes the leather or other foot-piece on the underside of which are secured the two arched, spring metal plates 2, 3, the plate 3 being of very small curvature. The plate 2 at about its centre is secured by rivets or the like 4 near its outer edge and near the inner edge of the foot-piece 1, with both its ends 5 free and lying under and being resiliently supported by the free ends 6, 6 of the plate 3, which plate 3 at about its centre is secured by rivets or the like 7 near its outer edge and near the outer edge of the foot-piece 1.

The spring plate 2 is arched in the longitudinal direction and the depth of the arch is greater than that of the spring plate 3.

As will be understood from the drawings and description the foot-arch support made

in accordance with my invention is very simple in construction and can be very quickly and easily inserted into, or removed from, any boot or shoe when desired. It will also be seen that when in use the spring plate 2 bears against and is resiliently supported by the spring plate 3, which plate 3 also prevents the free edges 5, 5 of the plate 2 from cutting into the inner sole of the boot or shoe in which it is placed.

In Fig. 4 is shown a modification. This form of foot-arch support is identical with that shown in Figs. 1 to 3, except that the foot-piece 1 is provided on the outer side and near the heel end with an upwardly projecting lip or flange 8, strengthened by a right-angled metal strip 9, and acting as an abutment against which the side of the foot rests thus keeping same in proper position on the support.

I claim:—

1. A foot-arch support comprising a foot-piece, an elongated arched spring metal plate secured at its outer edge near the center to the foot-piece near one edge of said foot-piece, the inner elongated edge and the end portions of the elongated arched spring metal plate being free, a second elongated spring metal plate secured at its outer edge near the center to the foot-piece beyond the free edge of the first mentioned arched spring metal plate, the free edge of the second mentioned spring metal plate overlapping the free edge of the first mentioned arched spring metal plate and forming a resilient support for the latter.

2. A foot-arch support comprising a foot-piece, an elongated arched spring metal plate secured near one elongated edge to the foot-piece near one edge thereof, the end portions of the elongated arched spring metal plate being free and extending outwardly from the foot-piece, a second elongated spring metal plate secured near one of the elongated edges to the foot-piece at a point beyond the elongated free edge of the first mentioned spring metal plate, the inner elongated free edge of the second mentioned plate extending inwardly and beyond the free elongated edge of the second mentioned spring metal plate and its end portions being extended whereby to form a support for

the free edges of said first mentioned spring metal plate.

3. A foot-arch support comprising a foot-piece provided on its outer edge near its heel
5 end with an overhanging flange to provide a foot rest, and two elongated spring metal plates secured on opposite sides of the foot

rest, the outer one of said plates being longer than the inner plate and forming a support for the free edge of the latter, both said 10 plates inclining inwardly toward each other.

In testimony whereof I have hereunto set my hand this 5th day of May, 1928.

GEOFFREY ADDEMS ERNST.