

997,955.

Patented July 18, 1911.

Fig. 1.

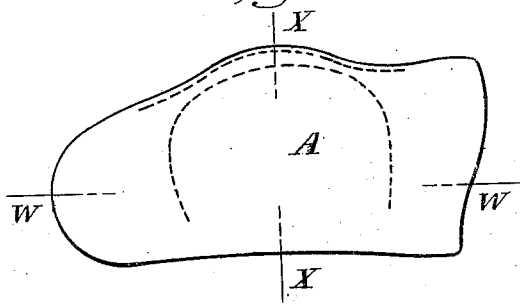


Fig. 2.

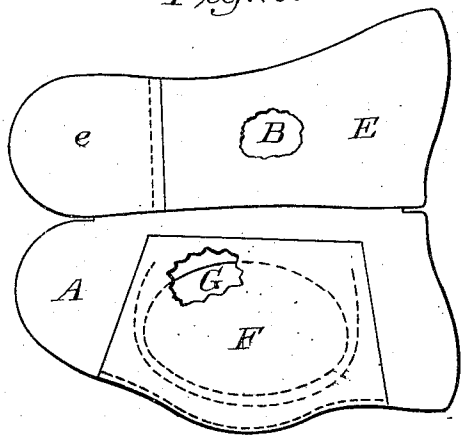


Fig. 4.

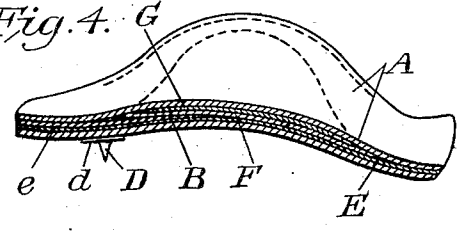


Fig. 3.

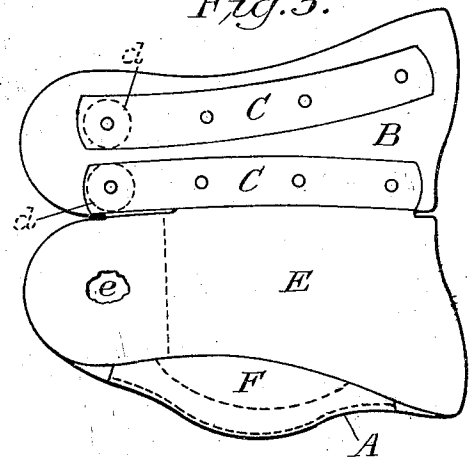


Fig. 5.

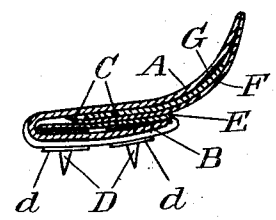


Fig. 6.

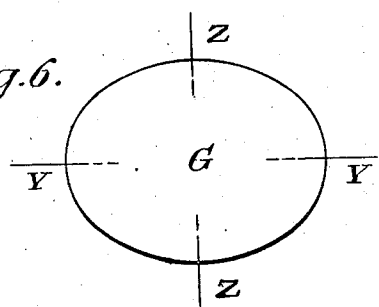


Fig. 7.

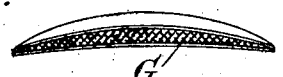


Fig. 8.



Witnesses:  
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*John W. Bubrows*

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 By *Walter E. Ward*  
*Att'y.*

# UNITED STATES PATENT OFFICE.

OTIS BOOTH, OF SARATOGA SPRINGS, NEW YORK.

ARCH-SUPPORTER.

997,955.

Specification of Letters Patent.

Patented July 18, 1911.

Application filed February 18, 1911. Serial No. 609,497.

To all whom it may concern:

Be it known that I, OTIS BOOTH, a citizen of the United States, residing at Saratoga Springs, in the county of Saratoga and State of New York, have invented certain new and useful Improvements in Arch-Supporters, of which the following is a specification.

My invention relates to arch supporters and the objects of my invention are to provide a flexible arch supporter which may be worn inside the shoe or boot without causing pain or inconvenience to the wearer and which may be attached to the inside sole of the shoe or boot so as to be left therein and which will not need any bandage around the foot or ankle.

Other objects of my invention will appear in the following specification.

I obtain these objects by means of the mechanism illustrated in the accompanying drawings in which—

Figure 1 is a plan view of my arch supporter closed in position to be placed inside the shoe or boot. Fig. 2 is a plan view of the same opened out and with the intermediate pad folded over the bottom part of the support. Fig. 3 is a plan view of the same as shown in Fig. 2 except with the intermediate pad folded over the upper part of the support. Fig. 4 is a longitudinal section of my arch supporter on lines W—W, Fig. 1. Fig. 5 is a cross-section of the same on lines X—X, Fig. 1. Fig. 6 is a plan view of the cork cushion. Fig. 7 is a longitudinal section of the same on lines Y—Y, Fig. 6. Fig. 8 is a cross-section of the same on lines Z—Z, Fig. 6.

Similar letters refer to similar parts throughout the several views.

United States Patent No. 724,158 was issued to me March 31, 1903, for arch supporter. This patent shows and describes an arch supporter which is bandaged around the foot of the wearer and worn inside the shoe or boot. My present invention is designed to be an improvement upon the arch supporter as shown and described in said patent and designed for use when the foot is strong enough not to need the bandage for support and does away with the necessity of bandaging the foot and leaves the arch supporter in the shoe to be taken off and put on with the shoe.

Referring to the drawings, A is the body of the supporter made of some strong material,

preferably sole-leather, with beveled edges and molded with the inside concave in width and convex in length to fit the arch of the foot, substantially the same as shown in my former Patent No. 724,158. This body A is hinged to a sole-piece B made to fit the inside of the shoe. This sole-piece B has metallic strips C, C riveted to the upper part thereof to strengthen the same and hold it in position. These metallic strips C, C are preferably made of thin spring steel. On the bottom of the sole-piece B and under the heel thereof are the spikes D, D firmly riveted to the sole-piece B, the rivets extending through the metallic strips C, C and having washers *d, d* on the underside of the sole-piece B. These spikes are designed to be driven downward into the heel of the shoe so as to hold the supporter firmly in the proper location when adjusted to fit the foot. The sole-piece B is made of some strong material, preferably sole-leather, the same as the body A. Hinged between the body A and the sole-piece B is the intermediate pad E. This pad E is preferably made of canvas soaked in a rubber solution and covered with powdered soapstone. The heel part *e* is preferably of rubber. This intermediate pad E serves to form a protection from the unevenness caused by the metallic strips C, C and the rivets by which they and the spikes D, D are fastened to the sole-piece B. The rubber heel portion *e* also forms a cushion to the heel of the wearer from the spikes D, D. This intermediate pad E also prevents any squeak caused by the friction of the body A against the sole-piece B or the metallic strips C, C attached thereto. F is a pocket on the underside of the body A in which may be placed cork cushions of different sizes and thicknesses to conform to the foot of the wearer. This pocket is substantially the same in form and purpose as the pocket G described in my Patent No. 724,158. G is a cushion preferably made of cork, the inside concave in width and convex in length with the outside beveled from the center to both edges and covered with canvas sewed or cemented on. This cushion is designed to be incased in the pocket F so that the inside of the cushion will come directly under the hollow or arch on the inside of the foot. This cushion G is adjustable and may be formed to fit any shape required by high or low arches or any size foot, as may be desired. Constructed in this

way the arch supporter may be made to fit any size foot and may be worn in any size boot or shoe and as the foot becomes stronger the size and thickness of the cushion G may be changed and varied as the circumstances of the case require. Also the arch supporter is fixedly attached in the shoe of the wearer and does not come out when the shoe is taken off. When the foot is put into the shoe over the supporter and the shoe is laced or buttoned the supporter is held in the arch of the foot without additional bandaging and is thus very conveniently and easily used and is very effective in its operation.

What I claim as my invention and desire to secure by Letters Patent is—

1. An arch supporter made of sole-leather with the inside transversely concave and longitudinally convex to conform to the arch of the foot, a sole-piece adapted to fit the inside sole of the shoe hinged to the body of the supporter, spikes attached to said sole-piece adapted to hold the same to the bottom of the inside of the shoe, and metallic strips attached to said sole-piece.

2. An arch supporter made of sole-leather with the inside transversely concave and longitudinally convex to conform to the arch of the foot, a sole-piece adapted to fit the inside sole of the shoe hinged to the body of the supporter, spikes attached to said sole-piece adapted to hold the same to the bottom of the inside of the shoe, metallic strips attached to said sole-piece, and a pad hinged between said sole-piece and said body, of substantially the same size and shape as said sole-piece.

3. An arch supporter made of sole-leather

with the inside transversely concave and longitudinally convex to conform to the arch of the foot, a sole-piece adapted to fit the inside sole of the shoe hinged to the body of the supporter, spikes attached to said sole-piece adapted to hold the same to the bottom of the inside of the shoe, metallic strips attached to said sole-piece, and a pad hinged between said sole-piece and said body, of substantially the same size and shape as said sole-piece, said pad having a heel portion consisting of a rubber cushion over said spikes.

4. An arch supporter made of sole-leather with the inside transversely concave and longitudinally convex to conform to the arch of the foot, a sole-piece adapted to match the inside sole of the shoe hinged to the body of the supporter, spikes attached to said sole-piece adapted to hold the same to the bottom of the inside of the shoe, metallic strips attached to said sole-piece, a pad hinged between said sole-piece and said body, of substantially the same size and shape as said sole-piece, a pocket attached to said body near the center thereof, and a cushion the inside of which is transversely concave and longitudinally convex and the outside of which is beveled from the center to the edges, said cushion of a length and thickness to fit the foot of the wearer and adapted to be inserted inside of said pocket, substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

OTIS BOOTH.

Witnesses:

MICHAEL E. McTYGUE,  
PHILIP S. WAKELEY.