

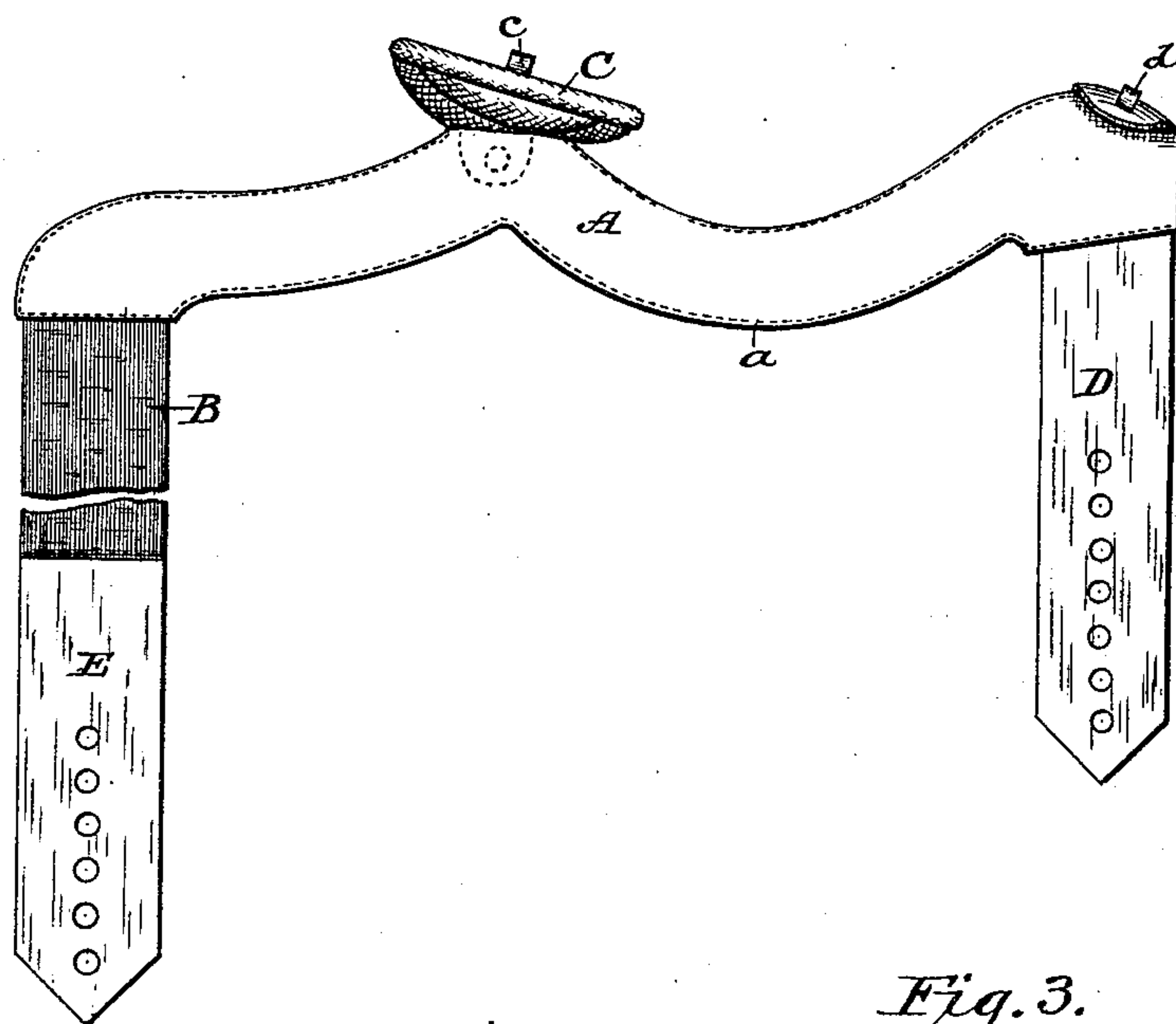
(No Model.)

I. ZACHARIE.  
ORTHOPEDICAL APPLIANCE.

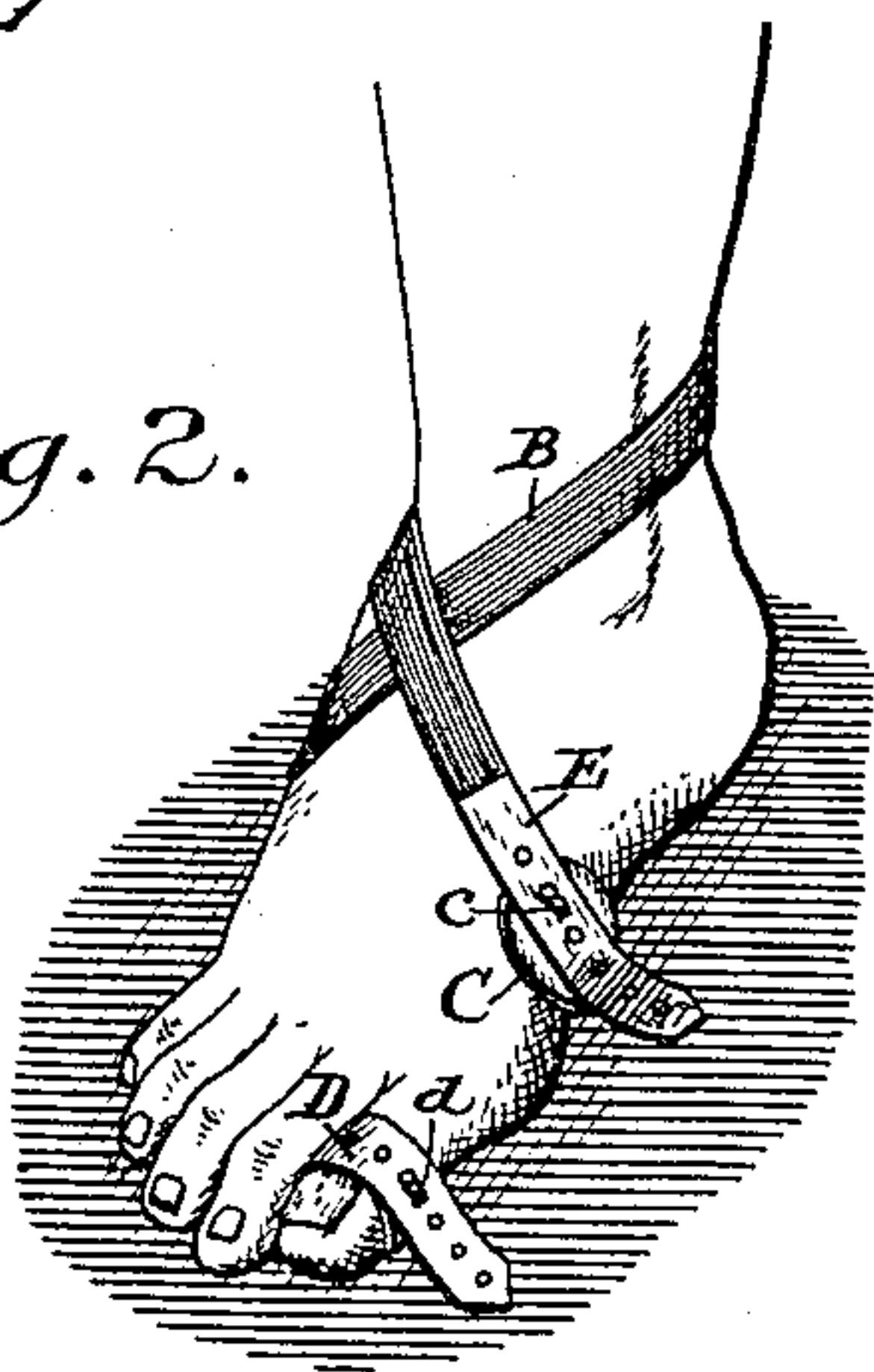
No. 353,910.

Patented Dec. 7, 1886.

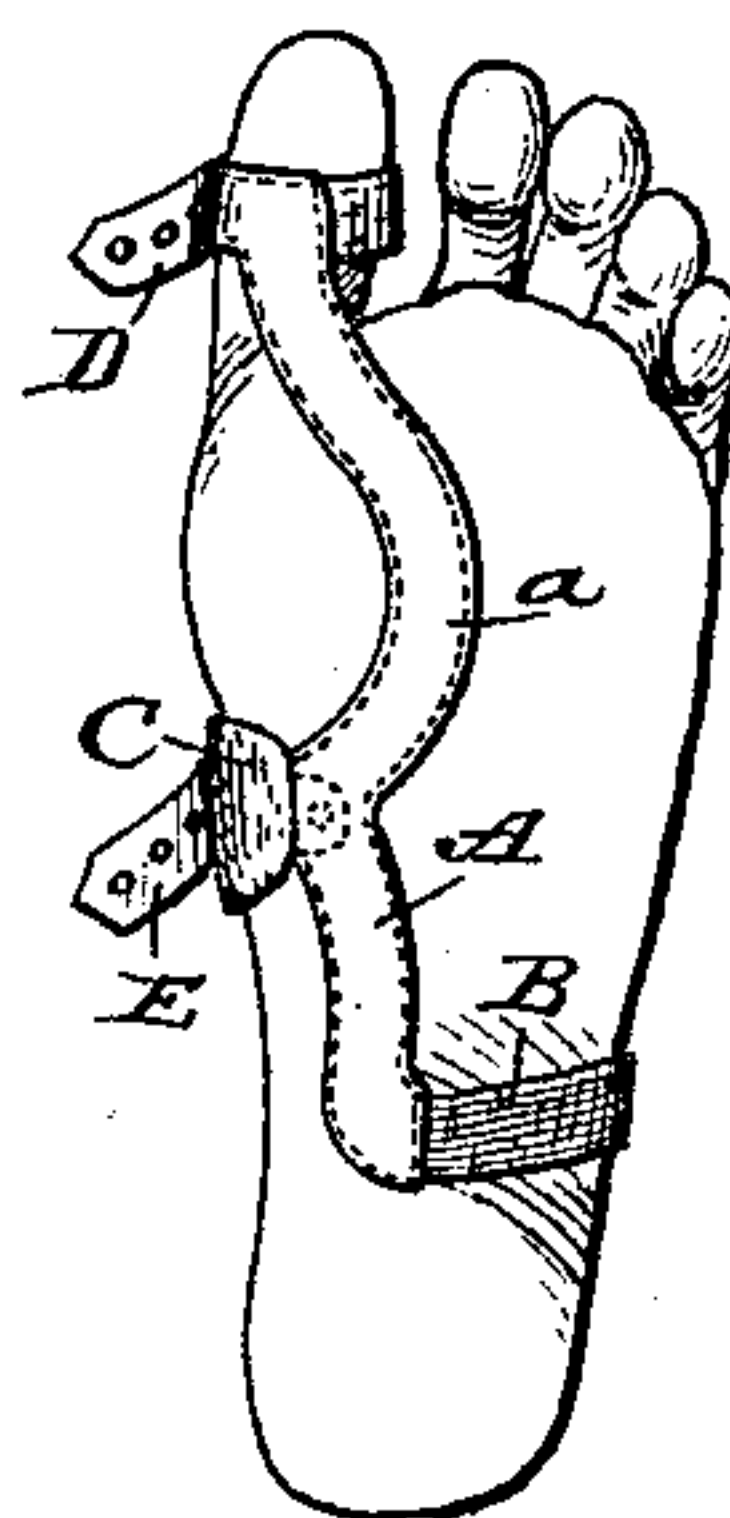
*Fig. 1.*



*Fig. 2.*



*Fig. 3.*



*Attest:*

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*Isaacher Zacharie*

# UNITED STATES PATENT OFFICE.

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## ORTHOPEDICAL APPLIANCE.

SPECIFICATION forming part of Letters Patent No. 353,910, dated December 7, 1886.

Application filed September 21, 1886. Serial No. 214,210. (No model.)

*To all whom it may concern:*

Be it known that I, ISSACHAR ZACHARIE, a subject of the Queen of England, residing at London, county of Middlesex, England have  
5 invented a certain new and useful Improvement in Orthopedical Appliances for Adjusting Displaced Bones of the Foot, of which the following is a specification.

My invention relates to an apparatus by  
10 which distorted joints of the foot can be made straight, and the objects of my invention are to provide the means for bringing the metatarsal bones and the phalange bones to their proper articulations, to afford facilities for  
15 the proper adjustment of the bones independently of each other in respect to their articulations, and to obviate the friction consequent to their unnatural position, so that the support of the body upon the foot is equal and  
20 natural. I obtain these objects by the device illustrated in the accompanying drawings, in which—

Figure 1 is a view of my improved apparatus; Fig. 2, a perspective view when adjusted ready for use, and Fig. 3, a bottom view thereof.

The plate A, which is preferably made of spring-brass and covered with soft leather, constitutes the frame-work of the apparatus.  
30 To the inner end of this plate is secured an elastic strap or band, B, that passes around the foot, and is secured by a strap of chamois-skin, E, made integral therewith, and having eyelets to a hook, *c*, carried by a hinged felt  
35 pad, C, secured about midwise to the plate A. A strap, D, preferably made of chamois-skin, is secured to a hook, *d*, on the outer end of the plate A, and passes around the great toe, to bring it to its proper position by the action  
40 of said plate. This plate is bent from about its center to the forward end, as at *a*, for the

purpose of pressing against and bringing the metatarsal bone of the great toe to its proper position, and preventing the bone of the first toe from causing friction by close contact between them, and by thus bending said plate  
45 the metatarsal bones of the other toes assume their natural position and are free to move in their proper channels. By securing the strap D around the great toe and the strap or band  
50 B around the ankle to the pad C the plate is secured in place and the pad brought to bear against the metatarsal bone of the great toe at its conjunction with the internal cuneiform bone, thereby pressing the head of the meta-  
55 tarsal bone out into its proper channel, articulating with the first phalange bone; and by passing said strap or band B around the ankle it allows freedom of motion when walking, at the same time firmly securing the apparatus  
60 in place, and allows proper articulation of the metatarsal phalangeal bones.

Having now fully described my invention, what I claim, and desire to secure by Letters  
65 Patent, is—

In an orthopedical appliance, the combination of a spring-plate having a lateral curve extending from one end to about its center with an elastic strap or band secured to one end thereof, and consisting in part of an elastic web and in part of chamois-skin, and made  
70 to engage with a hook carried by a felt pad secured to the spring-plate at the inner end of its curved portion, said spring-plate having at the other end of its curved portion a strap  
75 or band for securing it to the great toe, all substantially as shown and described.

ISSACHAR ZACHARIE.

Witnesses:

M. ARTHUR BLUMENTHAL,  
H. G. BISHOP.