

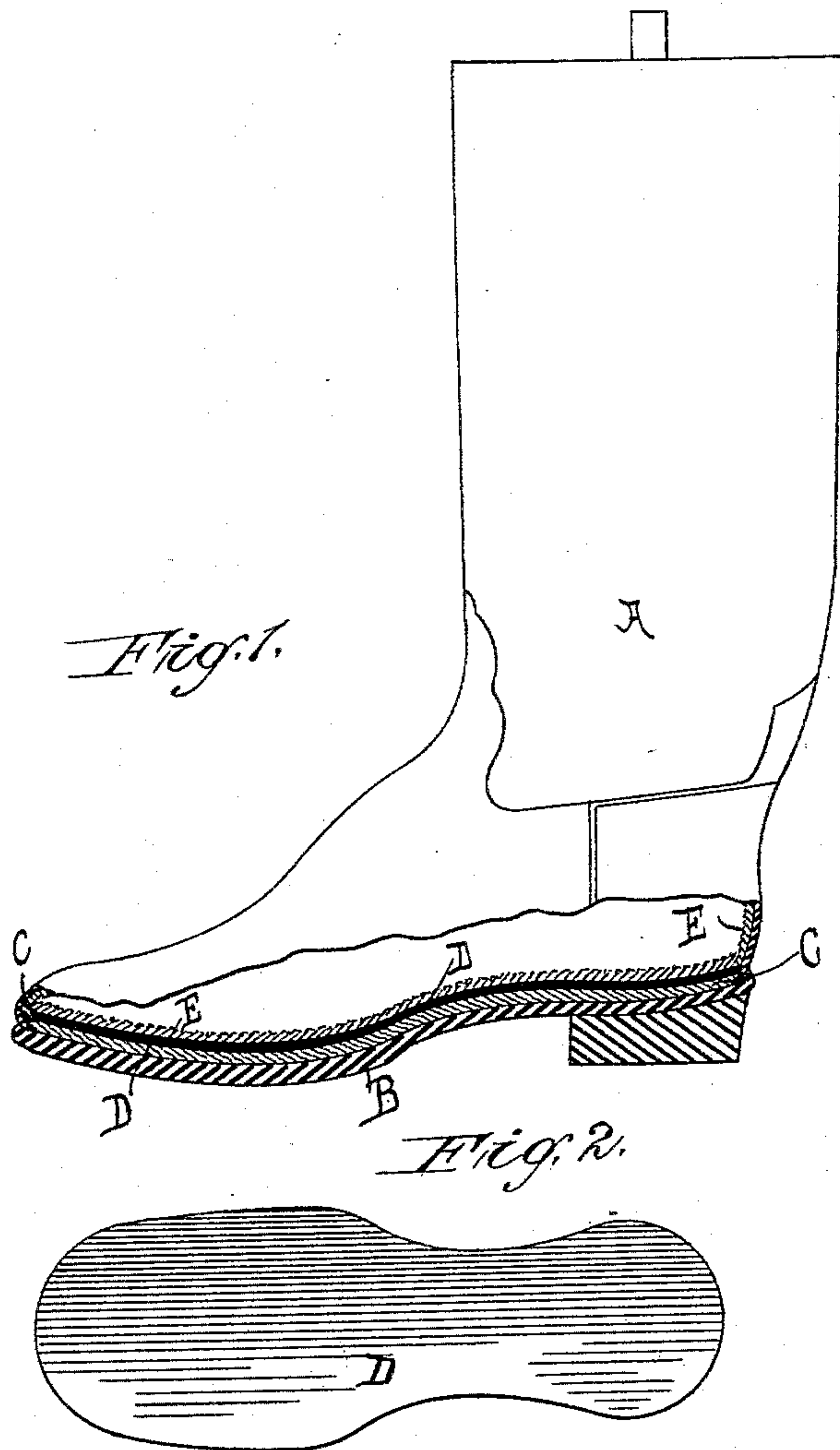
(No Model.)

T. REGAN.

PROTECTIVE SOLE FOR RUBBER FOOT WEAR.

No. 401,372.

Patented Apr. 16, 1889.



WITNESSES:

*C. W. Benjamin*  
*George W. Bockers*

INVENTOR:

*Timothy Regan*

BY

*Joseph A. Levy*

*his* ATTORNEY.

# UNITED STATES PATENT OFFICE.

TIMOTHY REGAN, OF NEW YORK, ASSIGNOR OF ONE-HALF TO WILLIAM V. RUSS, OF BROOKLYN, NEW YORK.

## PROTECTIVE SOLE FOR RUBBER FOOT-WEAR.

SPECIFICATION forming part of Letters Patent No. 401,372, dated April 16, 1889.

Application filed May 11, 1888. Serial No. 273,545. (No model.)

*To all whom it may concern:*

Be it known that I, TIMOTHY REGAN, a citizen of the United States, residing at New York, in the county of New York and State of New York, have made a new and useful Protective Sole for Rubber Foot-Wear; and I do declare that the following is a full, clear, and accurate description thereof, which will enable others to practice my invention, when taken in connection with the accompanying drawings.

My invention relates to boots, shoes, or other articles of foot-covering; and it consists in combining with the boot or shoe and forming integrally with it a protective sole, for the purpose hereinafter specified.

My invention is specially intended to be adapted to the boots or shoes that are worn by firemen, builders, and all other persons whose occupation brings them into positions where they are liable to have sharp things—such as nails, glass, &c.—penetrate the soles of their boots. For example, the experience of a fireman, either in working on a burning building or in tearing down buildings or in other like occupations, is that nails, pieces of glass, and other sharp things penetrate their boots or shoes and injure their feet, thus incapacitating them for work; and it is specially beneficial to firemen's use, as they have found, especially in large cities where they are actively employed, that a rubber boot is the most convenient and efficient foot-covering they can wear, and this having a rubber sole permits the entry of nails into and frequently through the sole of the boot.

By the use of my invention in the way set forth the penetration of sharp things into the foot of the wearer is entirely prevented. I attain this result by means of the devices illustrated in the accompanying drawings, forming part of this specification, in which—  
Figure 1 is a side elevation, partly in section,

showing one of the methods of applying my invention. Fig. 2 is a plan view of my protective sole removed from the boot or shoe.

In the drawings, A is the rubber boot, and B is the sole thereof.

C is the usual soft-rubber backing, to which is cemented or otherwise attached the outer sole, B.

D is a sheet of metal, preferably made of thin sheet-steel struck up, as shown in Figs. 2 and 3, into the form necessary for it to conform to the shape of the sole of the foot. This plate D is placed upon the backing C, and upon that (the plate) a lining of felt or other desirable material, E, is suitably secured. Although I prefer to make this sheet D of thin sheet-steel or other metal, it is obvious that it may be made of any other material possessing the necessary qualities of resistance to sharp articles and ability to be struck up or otherwise formed into desired shape. This plate may be either fastened within the sole, the proper means being employed to permit its giving within the sole when being used, or it may be placed loosely therein, care being taken in both cases that the edge of the plate is so covered that it will not wear through the material composing the boot.

I am aware that boots and shoes made of leather have been constructed with a sheet of metal placed within the sole of the boot or shoe, and this I do not claim.

I claim—

As an improved article of manufacture, a rubber boot having a sole comprising a superposed layer of felt, an interposed sheet of metal, and an under layer composed of two sheets of rubber, the upper layer being soft and the lower hard, substantially as described.

TIMOTHY REGAN.

Witnesses:

WARREN A. RAUCH,  
GEO. T. CROMBIE.