

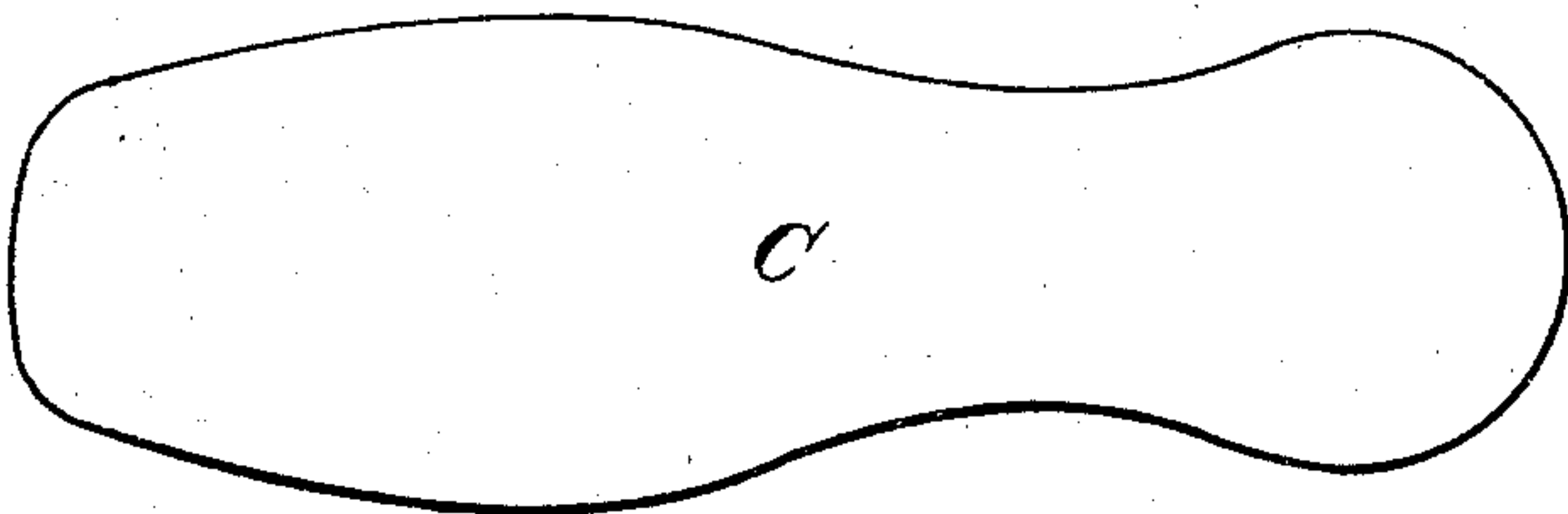
*B. Heneage,*

*Shoe Sole.*

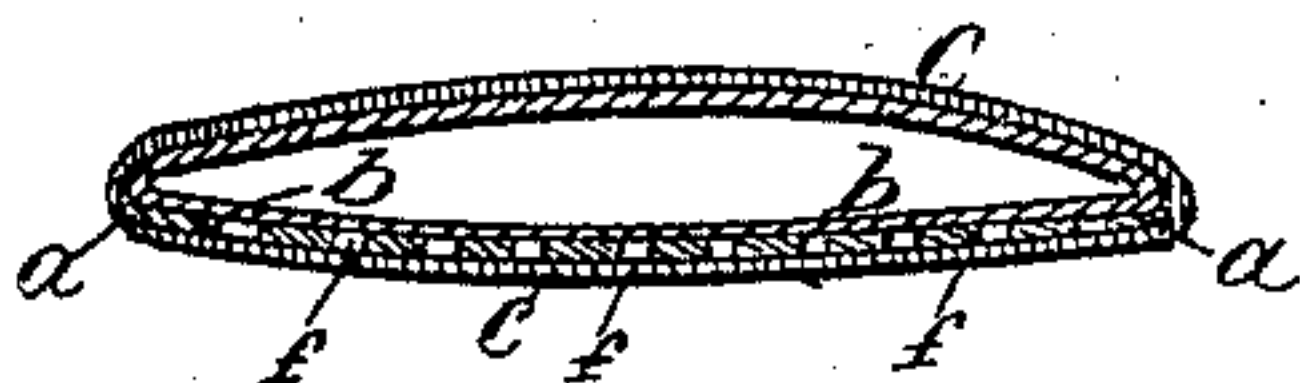
*No. 80,071.*

*Patented July 21, 1868.*

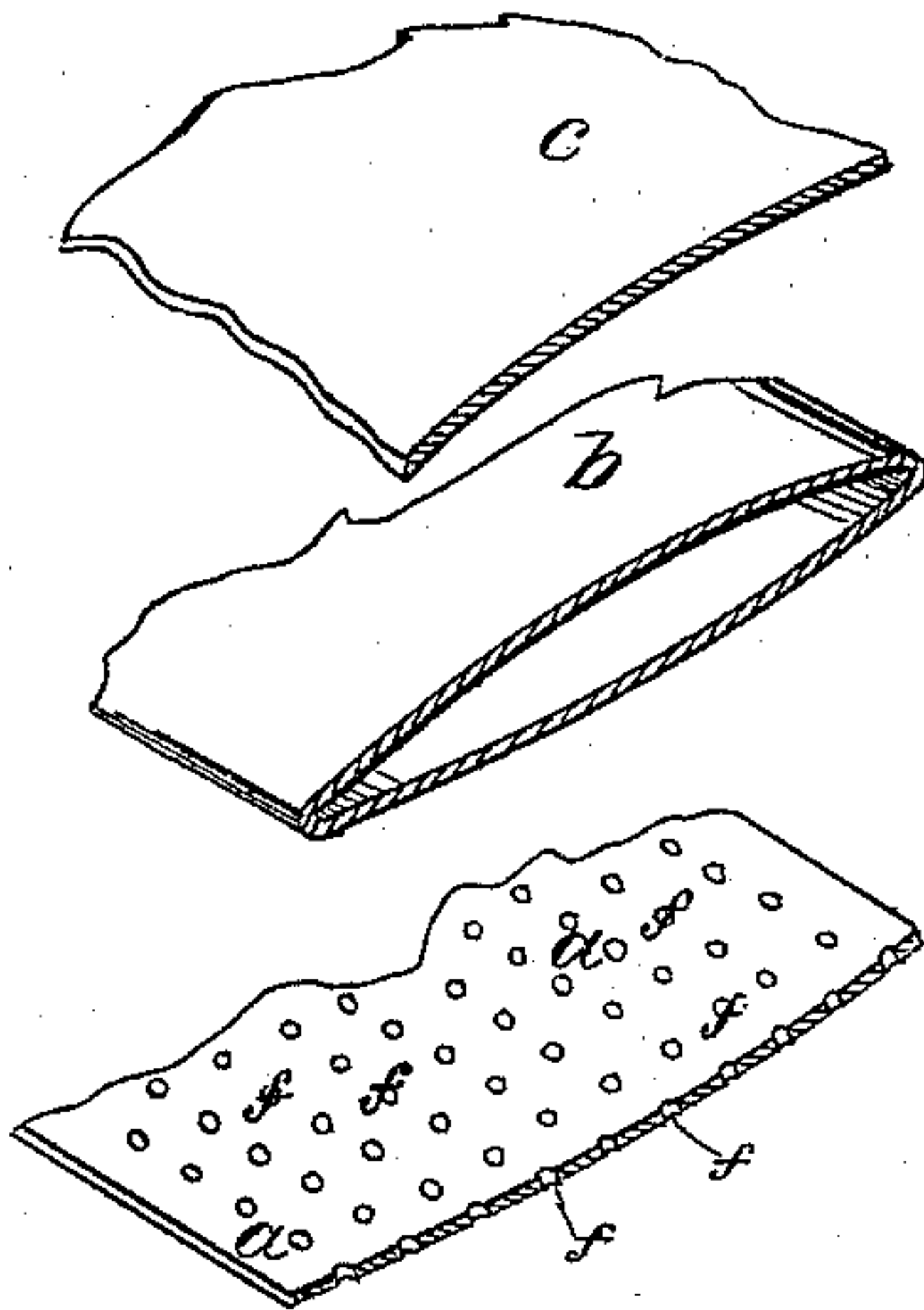
**FIG. I.**



**FIG. II.**



**FIG. III.**



**Witnesses.**

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# United States Patent Office.

ROBERT HENEAGE, OF BUFFALO, NEW YORK, ASSIGNOR TO HIMSELF AND  
IRA R. AMSDEN.

*Letters Patent No. 80,071, dated July 21, 1868.*

## IMPROVED INSOLE FOR BOOTS AND SHOES.

*The Schedule referred to in these Letters Patent and making part of the same.*

### TO ALL WHOM IT MAY CONCERN:

Be it known that I, ROBERT HENEAGE, of the city of Buffalo, county of Erie, and State of New York, have invented a certain new and useful Improvement in Insoles for Boots and Shoes; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, making part of this specification.

Figure 1 is a plan of my improved sole.

Figure 2, a cross-section.

Figure 3, a view in detail of the several parts.

Like letters of reference indicate corresponding parts in all the figures.

My invention consists of an insole, constructed with a perforated metallic stiffener or other suitable material, its equivalent containing an air-cushion or bag, the said parts being cemented or glued together, and covered with cloth or other suitable covering, as hereinafter set forth.

In the drawings, *a* indicates the plate, *b* the air-cushion, and *c* the outer cloth-lining.

The stiffener extends the whole length of the sole, and forms the base. It is made very light and thin, and filled with perforations, *ff*.

The air-cushion is simply a flat India-rubber or flexible bag, overlying the stiffener the whole length and width. The cushion and stiffener are united by means of cement or glue, which, passing through the perforations and holding on the opposite side, effectually and securely retain the parts in place.

The outer lining forms a cover to the sole, also a support to the cushion or air-chamber.

In use, the cushion is filled with compressed air, which extends under the whole foot in a layer so thin as not to form an obstruction or impediment, and yet serve as a spring to ease the foot in walking. It is particularly effective in cities where the pedestrian has to walk on hard pavements, in which case it acts not only as a spring, but also to break the shock or concussion, by interposing a soft and elastic body under the foot.

The special construction as above set forth is also essential to its value. Were it not for the base-plate or stiffener, the air-bag could not be made to retain its form and position. From its extreme lightness, this plate adjusts itself exactly to the form of the foot and boot.

The perforations not only lighten the weight of the plate, and make it more flexible than it otherwise would be, but, most important, it furnishes the means by which the cement is made to adhere that fastens the rubber cushion in place.

By this means, the attaching of the rubber cushion to the plate is accomplished without difficulty or expense, and in a moment's time, and the whole surface is firmly and continuously united.

I intend this sole more particularly for use as a removable insole, but, if desired, it may form the regular attached insole to the boot or shoe.

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

An insole for boots and shoes, attached or otherwise, consisting of an air-cushion or chamber with suitable attachments, as a new article of manufacture.

I also claim, constructing the sole with a perforated base-plate or stiffener, *a*, an overlying air-cushion, *b*, and an outer covering, *c*, the cushion being united with the plate by cement or glue that passes through the perforations and holds on the opposite side, the whole arranged as described, and operating substantially in the manner and for the purpose specified.

In witness whereof, I have hereunto signed my name in the presence of two subscribing witnesses.

ROBT HENEAGE.

Witnesses:

R. F. OSGOOD,

J. R. DRAKE.