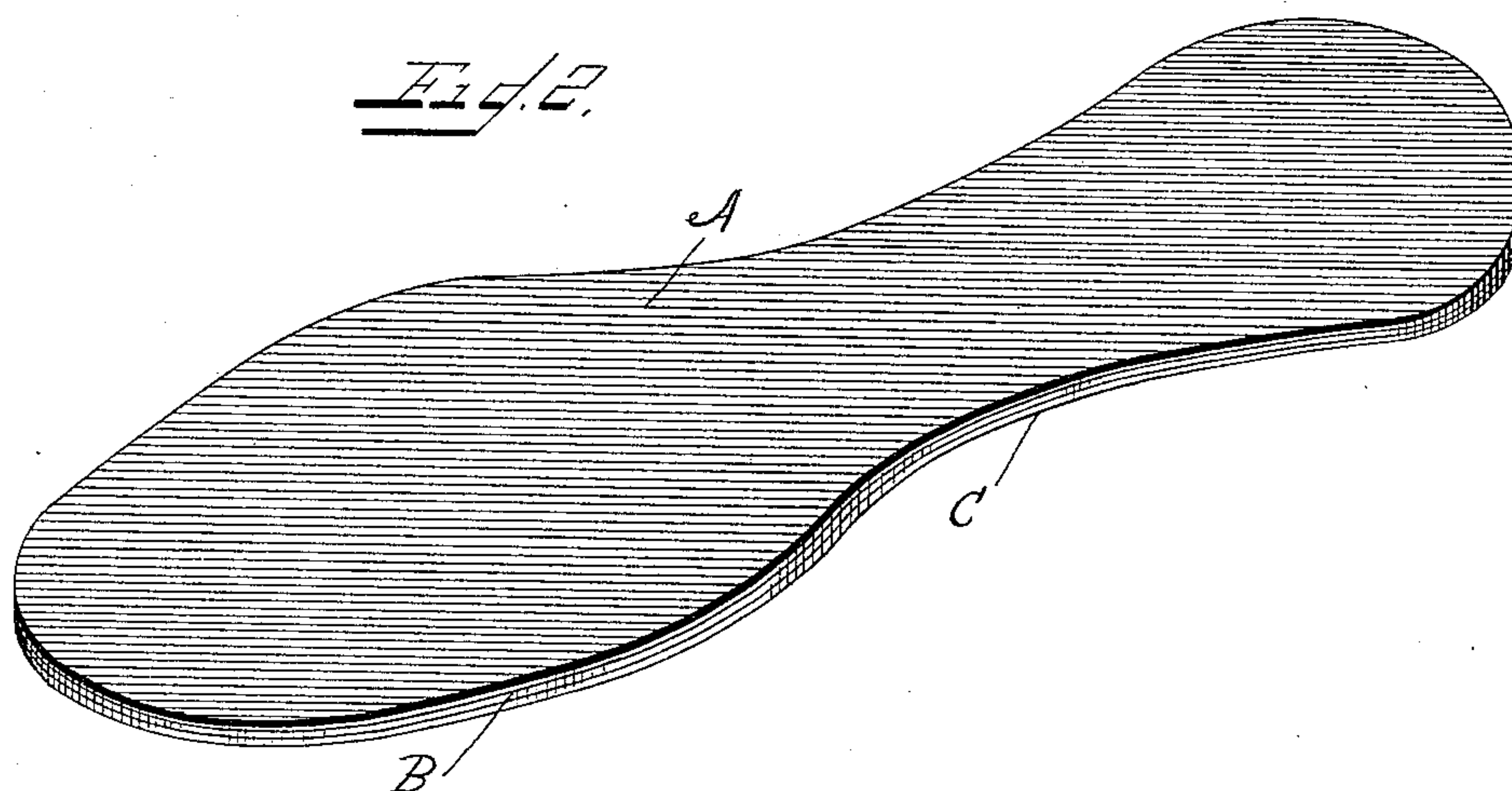
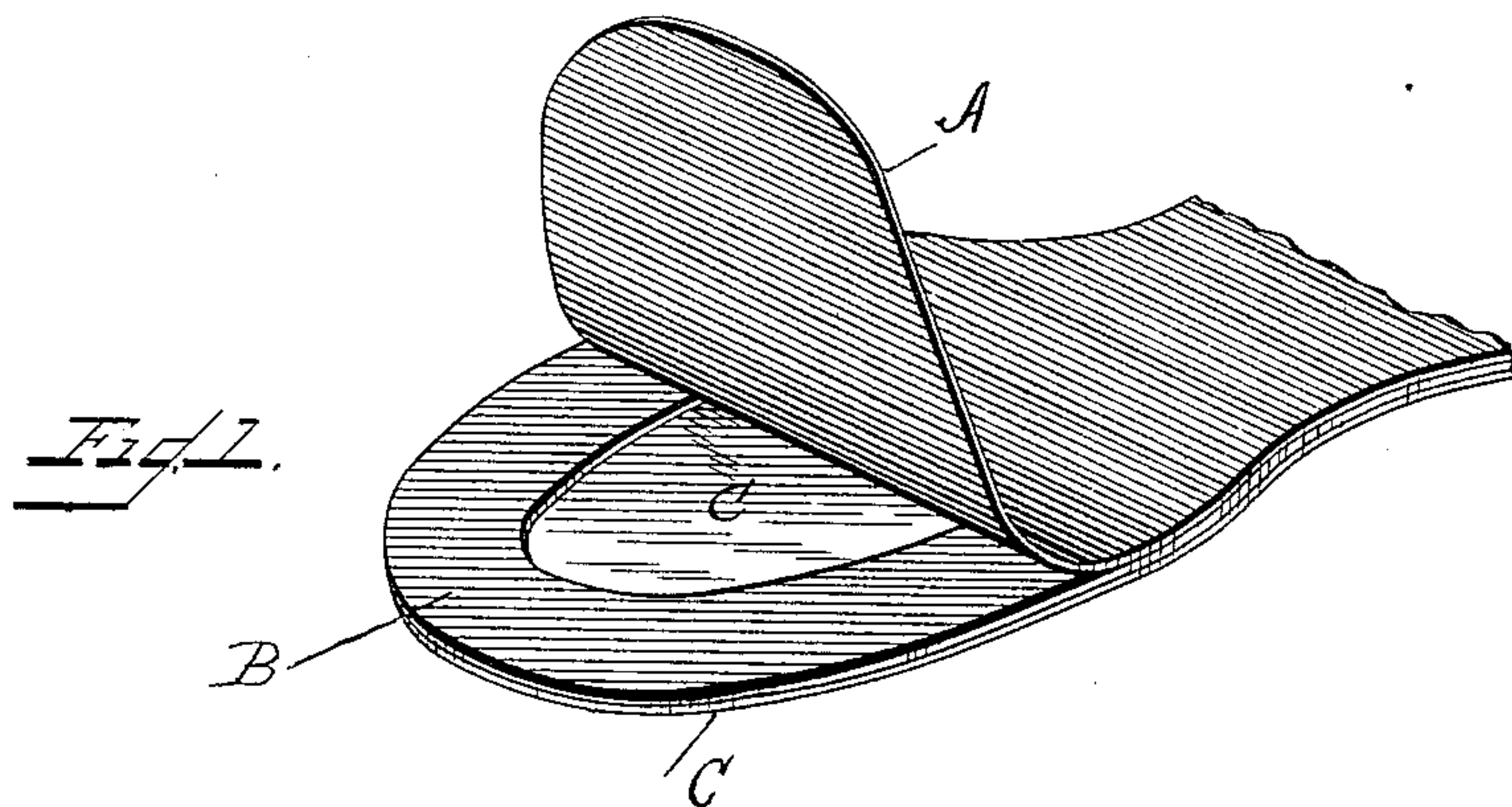


(No Model.)

F. A. CUSHMAN.
SOLE FOR BOOTS OR SHOES.

No. 379,765.

Patented Mar. 20, 1888.



WITNESSES.

John A. Mire.
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per
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UNITED STATES PATENT OFFICE.

FRANCIS A. CUSHMAN, OF PLYMOUTH, NEW HAMPSHIRE.

SOLE FOR BOOTS OR SHOES.

SPECIFICATION forming part of Letters Patent No. 379,765, dated March 20, 1888.

Application filed December 20, 1887. Serial No. 258,513. (No model.)

To all whom it may concern:

Be it known that I, FRANCIS A. CUSHMAN, a citizen of the United States, residing at Plymouth, in the county of Grafton and State of New Hampshire, have invented certain new and useful Improvements in Soles; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon, which form a part of this specification.

The object of my invention is to provide a composite, effective, and economical insole, also one which shall be water proof.

My invention consists, first, in an insole composed of two portions of pulp-sheet and an interposed welt, and, second, in a sole as just mentioned, but having the pulp-sheet portions water-proof.

In the drawings, Figure 1 is a broken perspective, the upper sheet portion drawn back. Fig. 2 is a perspective of the united sole.

Like letters refer to like parts.

A and C are the pulp-sheet portions, cut in the form of a sole. I prefer to use the sheet or board made from wood pulp, such as described in Patent No. 329,370, which sheet should be colored to resemble leather; but I do not limit myself to a sheet made of a particular kind of pulp. Whatever sheet is used, the pulp should be made water-proof while plastic, rather than by indurating or penetrating the manufactured sheet with chemicals which give this property, and this on the score of effectiveness and convenience.

The pulp can be rendered water-proof while plastic in the engine by treating the mass with slaked lime, soda-ash, or caustic soda, (or other suitable alkali,) skim-milk, rosin dis-

solved so as to be soluble in water, and starch, the proportions of which may be varied accordingly as the pulp has been chemically treated before going into the engine. I do not, however, limit myself to the above process, as others are efficient.

B is a welt placed between the portions A and C, and may be of leather, cloth, duck, or any suitable material.

When the three parts are placed in proper position, the whole is united by pressure to form a single sole, as it were, which may be put on the last in the usual way, the welt giving the appearance of an additional sole and giving a firm hold for the pegs or stitches. If the manufacturer desires, another welt can be added to show on the edge of the boot or shoe, the same as he would do with a leather insole.

A sole made up in this way is a very desirable article, whether water-proof or not, as it is fully or nearly equal to a leather insole and costs less.

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

1. A sole composed of two thin soles and a welt interposed between the edges of said thin soles, the whole united by pressure, as set forth.

2. An insole composed of two portions of pulp-sheet, A and C, and an interposed welt, B, as set forth.

3. An insole composed of two portions of water-proof pulp-sheet, A and C, and an interposed welt, B, as set forth.

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

FRANCIS A. CUSHMAN.

Witnesses:

R. E. SMYTHE,
GEO. H. BOWLES.