

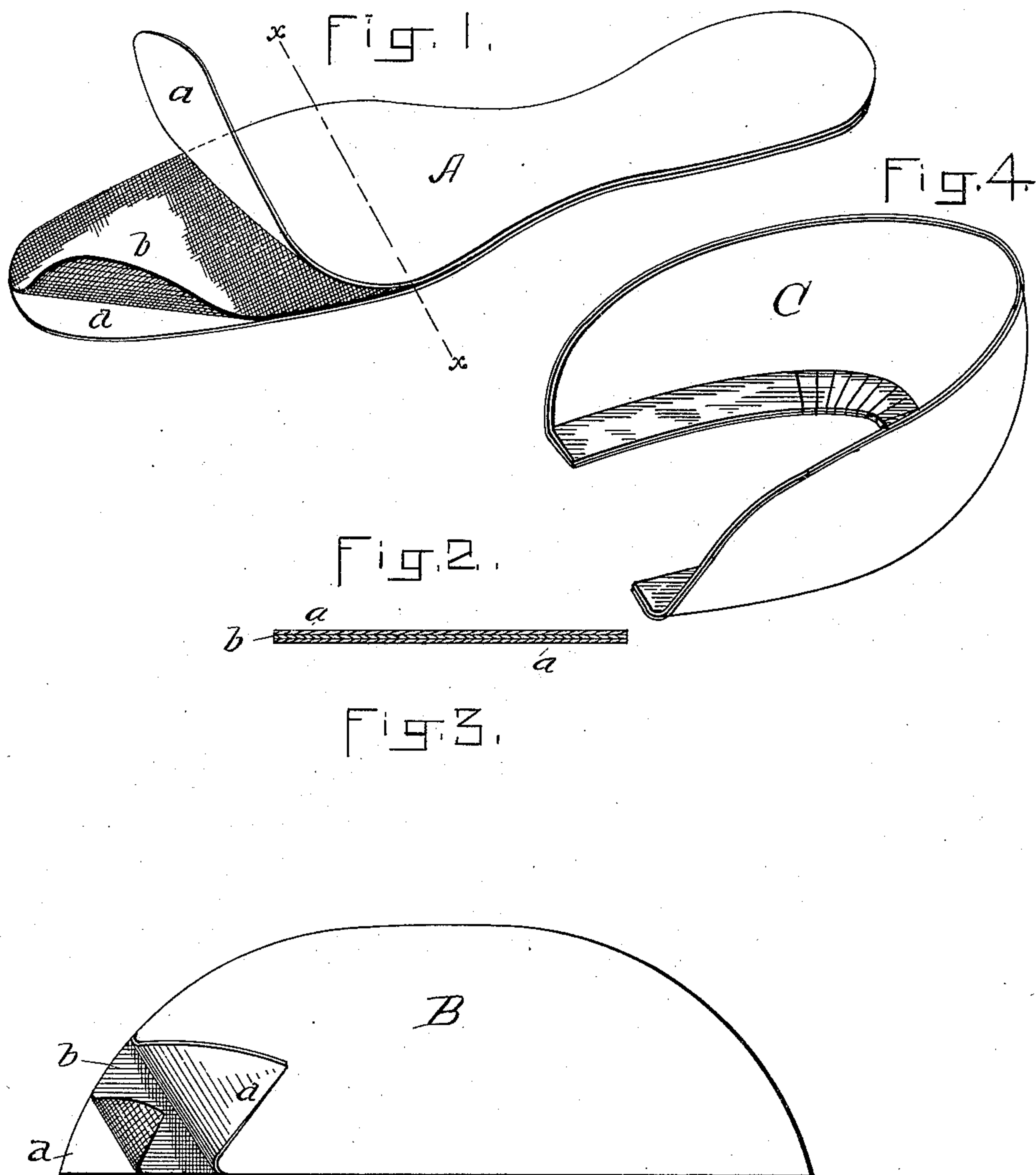
(No Model.)

A. F. SMITH.

INNER SOLE, STIFFENER, &c.

No. 376,419.

Patented Jan. 10, 1888.



WITNESSES:

J. T. Ball
C. B. Crocker

INVENTOR:

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UNITED STATES PATENT OFFICE.

AARON F. SMITH, OF LYNN, MASSACHUSETTS, ASSIGNOR TO THE WOOD-BURY HEEL COMPANY, OF NASHUA, NEW HAMPSHIRE.

INNER SOLE, STIFFENER, &c.

SPECIFICATION forming part of Letters Patent No. 376,419, dated January 10, 1888.

Application filed September 10, 1887. Serial No. 249,308. (No model.)

To all whom it may concern:

Be it known that I, AARON F. SMITH, of Lynn, in the county of Essex and State of Massachusetts, have invented certain new and useful Improvements in Stock or Material for the Manufacture of Inner Soles, Stiffeners, &c., and Stiffeners Made from the Same, of which the following is a specification.

My invention relates to stock or material for the manufacture of inner soles, stiffeners, &c., for boots and shoes and to stiffener-blanks and stiffeners manufactured therefrom.

It is the purpose of my invention to produce a material for inner soles, stiffeners, &c., which shall be at once light in weight, flexible, entirely odorless, of slight bulk or body, exceedingly durable, and to all intents and purposes water-proof, being also very economic of manufacture.

No material, perhaps, for the purposes mentioned, prior to my invention, has been discovered or manufactured that comes nearer to embodying the qualities enumerated than good well-tanned leather, though it for many purposes fails to meet all of the several requirements named.

My invention consists in a stock or material for the manufacture of inner soles, stiffeners, &c., composed of layers of wood pulp with a layer or layers of canvas or other textile fabric interposed between such layers of wood pulp, and in stiffener-blanks and molded stiffeners manufactured therefrom.

My invention will first be described in connection with the drawings, and subsequently pointed out in the claims.

Of the drawings, Figure 1 represents a perspective view of a portion of the stock or material comprising my improvements, said stock being shaped in the form of an inner sole. Fig. 2 represents a sectional view on the line *x x*, Fig. 1. Fig. 3 is a plan view of a stiffener-blank formed in accordance with my invention. Fig. 4 is a perspective view of a molded stiffener embodying my invention.

Similar letters of reference indicate similar parts in all of the views.

In the drawings, *a a* represent layers or sheets of wood pulp, preferably waterproofed; and *b*, a layer or sheet of canvas or other tex-

tile fabric interposed between the sheets or layers of wood pulp.

In Figs. 1 and 3 I have shown the several sheets or layers comprising my improved stock or material as separated at one point and turned back to better illustrate the relationship of the parts.

The wood pulp, being water-proof, can be made quite thin, so that an article manufactured from the material—as, for instance, an inner sole—may be made exceedingly light and flexible, and at the same time water-proof. While wood pulp itself is quite tough, the interposed sheet of canvas so strengthens the material that it will hold stitches or other fastenings in a boot or shoe fully as well as leather.

The interposed sheet or layer *b* of textile fabric may be arranged and secured in place in any suitable way—that is to say, it may be rolled into the material at the time the same is made into sheets, or it may be placed between the sheets *a* of wood pulp after the latter has been made and secured in place by compression, or by means of cement, or in any other convenient or suitable manner.

It is not essential that the material or stock should be composed of but three layers—two of wood pulp and one interposed layer of textile fabric—as any number of sheets may be laid together, the sheets of textile fabric being always preferably interposed between the sheets or layers of wood pulp.

In Fig. 3 I have shown a blank, *B*, for a stiffener struck up from the material, and in Fig. 4 a molded stiffener, *C*, made from the same. In articles of this character the sheets of wood pulp *a* may be made somewhat thicker and heavier than the inner soles, as shown in Fig. 1, manufactured from the stock.

Having thus described my invention, what I claim is—

1. The herein-described material or stock for the manufacture of inner soles, stiffeners, &c., for boots and shoes, the same consisting of a plurality of layers or sheets of wood pulp and a layer or layers of textile fabric interposed between such layers of wood pulp, all of said layers being secured together, as set forth.

2. A blank for boot and shoe stiffeners, con-

sisting of a plurality of layers or sheets of wood pulp and a layer or layers of textile fabric interposed between the layers or sheets of wood pulp, as set forth.

- 5 3. A molded stiffener for boots and shoes, composed of a plurality of layers or sheets of wood pulp with an interposed sheet or layer of textile fabric, the several layers being secured together, as set forth.

In testimony whereof I have signed my name to this specification, in the presence of two subscribing witnesses, this 31st day of August, A. D. 1887.

AARON F. SMITH.

Witnesses:

ARTHUR W. CROSSLEY,
C. F. BROWN.