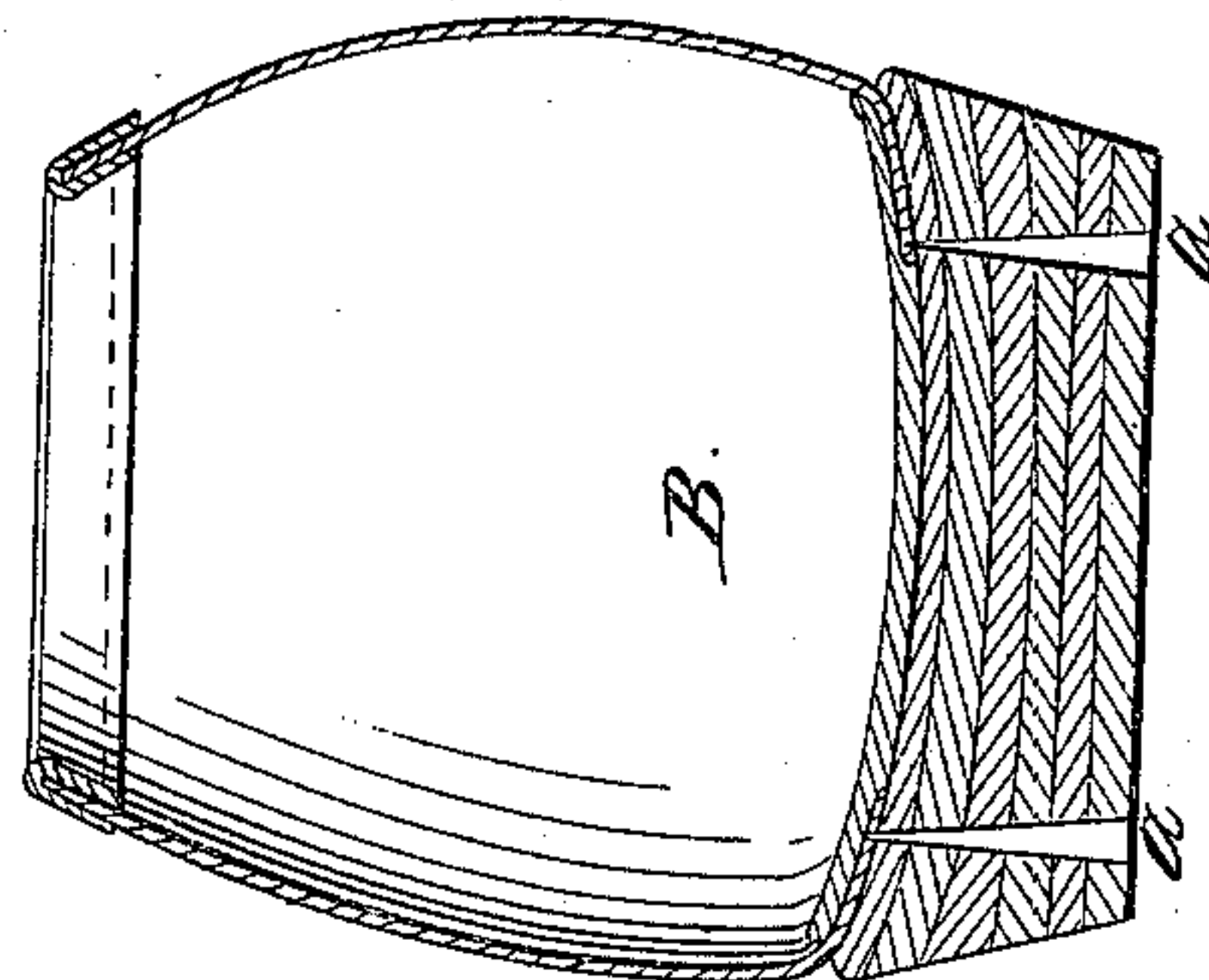
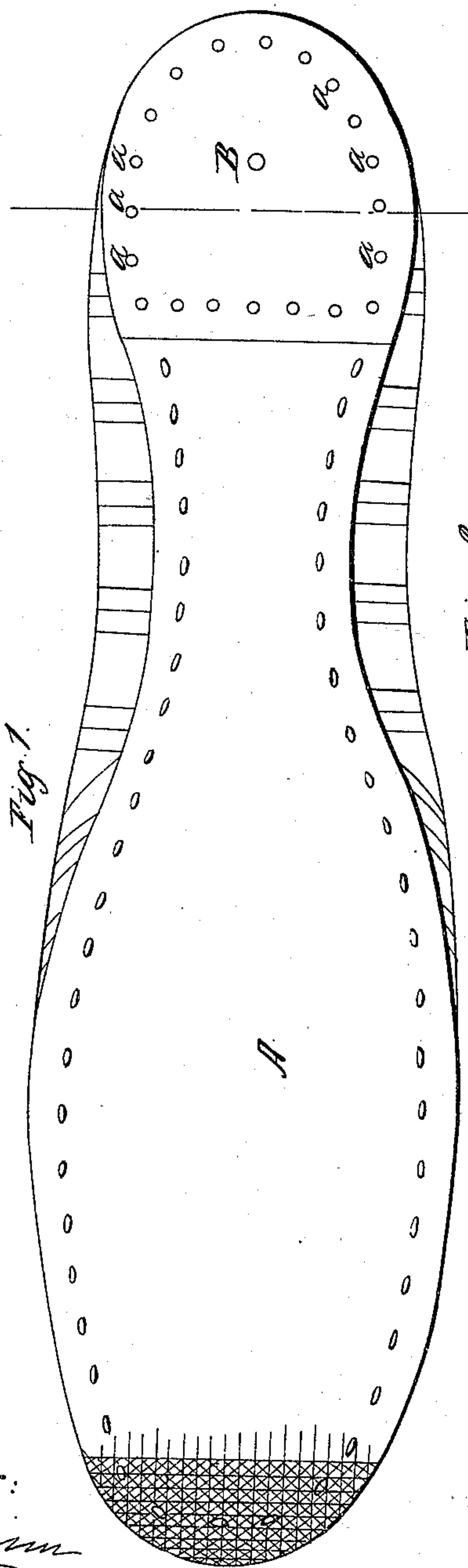


G. Hawkes.

Shoe Sole.

N^o 91,844.

Patented Jan. 29, 1869.



*Witnesses:
Samuel Quinn
& C. D. Dutton*

*Inventor:
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by B. F. James
his atty*

United States Patent Office.

GILBERT HAWKES, OF LYNN, MASSACHUSETTS.

Letters Patent No. 91,844, dated June 29, 1869.

IMPROVEMENT IN THE MANUFACTURE OF 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, GILBERT HAWKES, of the city of Lynn, county of Essex, and State of Massachusetts, have invented a new and useful Improvement in the Manufacture of 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, and to the letters of reference marked thereupon.

The nature of my invention consists in the preparation and adaptation of textile fabrics to the manufacture of boots and shoes, so that, under certain conditions, this product may supply the place of sole-leather, rendering the boot or shoe more easy and flexible, so that, when made, it would minister to the comfort and convenience of invalids, or of persons whose feet are tender, diseased, or wounded, as well as to those in good health, and at the same time to impart sufficient stiffness and firmness to the various portions of the boot or shoe as may be deemed desirable and expedient.

I am not aware that textile material has ever before been used for the purposes above mentioned.

To enable others skilled in the art to make and use my invention, I will proceed to describe it.

I take, of the fibrous material or fabric, such a quality that is adapted to receive and retain, by saturation, any stiffening-substance that may be applied to the same, and by firmly agglutinating the mass of fibres, will render the same durable and elastic at the same time.

This process of stiffening may be produced by resinous, gelatinous, or other analogous substances, to the fabric, with well-known admixtures, that will make the same water-proof.

After the fabric is in this way prepared, a sufficient number of layers of this fabric can be glued, cemented, or otherwise put together, to form the outer or inner soles of the boots or shoes, the stiffenings for the heel, or such other portions of the same as may be desired.

The soles, when thus prepared, are then applied to the "uppers" of the boots or shoes, made in the usual form, by sewing or pegging.

In the drawings—

Figure 1 represents the sole and heel of a shoe, constructed of the material described as my invention, and

Figure 2 shows a cross-section of the heel, and the different layers used therein.

A is the sole of the shoe;

B, the heel; and

a a represent the pegs used in attaching the heel to the shoe.

This stiffening may or may not be made water-proof, as desired, and only one thickness of the stiffened fibrous material may be used in such parts of the shoe to which the same may be adapted.

Having thus described my invention,

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

As an article of manufacture, a shoe, the sole and heel of which is of a textile fabric, when stiffened and applied in the manner and for the purpose herein described.

GILBERT HAWKES,

Witnesses:

NATHAN CLARK,
HORACE CLARK.