116938 Lewis Elliott Jr. PATENTED JUL 11 1871

Impl. in India Rubber Shoes.

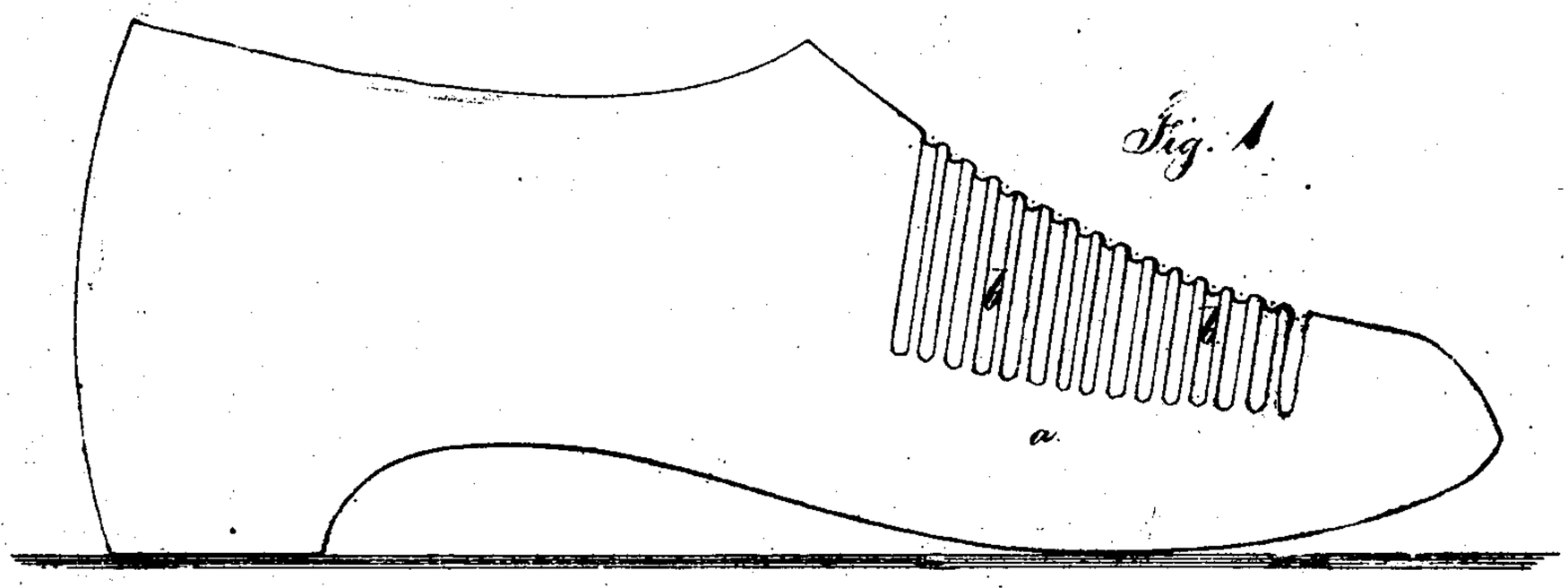


Fig. 1

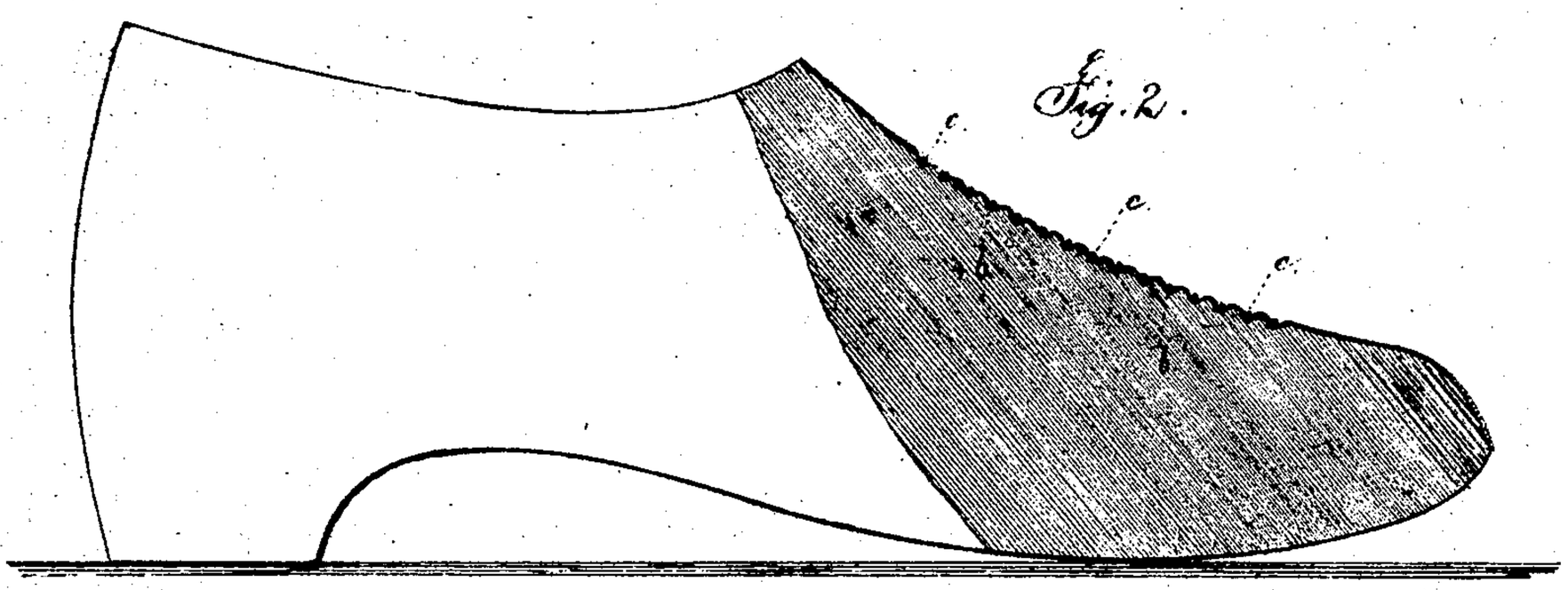
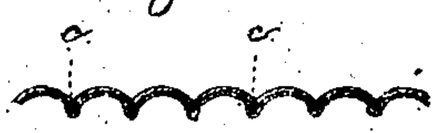


Fig. 2.

Fig. 3



Witnesses.

Chas. H. Smith

Geo. H. Walker

Lewis Elliott Jr.

Lemuel W. Serrell

UNITED STATES PATENT OFFICE.

LEWIS ELLIOTT, JR., OF NEW HAVEN, CONNECTICUT, ASSIGNOR TO L. CANDEE & CO., OF SAME PLACE.

IMPROVEMENT IN INDIA-RUBBER SHOES.

Specification forming part of Letters Patent No. 116,938, dated July 11, 1871.

To all whom it may concern:

Be it known that I, LEWIS ELLIOTT, Jr., of New Haven, in the State of Connecticut, have invented and made an Improvement in India-Rubber Shoes; and the following is declared to be a correct description of the same.

Efforts have heretofore been made to ventilate India-rubber shoes by introducing within the shoe a previously-corrugated strip or piece of rubber and connecting the same in place in the process of vulcanizing or curing the gum. In these shoes the uppers were heavy and unsightly, and the same have not met with favor.

My invention is made for the purpose of ventilating the shoe without increasing its weight; at the same time rendering such shoe more ornamental in its appearance.

India-rubber shoes generally require to be ventilated in the portion over the front of the foot, because the shoe here generally sits the most closely to the leather boot or shoe.

My invention consists in an India-rubber shoe made with corrugations that are formed upon a corrugated last by means of cords passing over the lining and holding the same down to the last while the rubber surface that is attached to such lining is being cured. In this construction the cord interposed between the lining and the sheet-rubber renders the corrugations deeper and more permanent than can be obtained without its use.

In the drawing, Figure 1 is a side view of the last made use of. Fig. 2 is a section of the last and the lining for receiving the India rubber, and Fig. 3 shows part of a shoe in section in larger size.

The last *a* is to be made with grooves *b b* at those places where the shoe itself requires to be ventilated. I have shown these grooves at the front part of the last. This last may be made of any suitable material or materials. The lining of the shoe is placed upon the last, as usual, and confined into the grooves by an elastic or non-elastic thread, shown at *c*, so that the sheet rubber, when caused to adhere to the lining, will assume a corrugated form, and that form will become permanent in consequence of the vulcanizing or curing. The corrugations, being concave upon their inner surface, prevent the shoe setting closely to the leather boot or shoe, and form channels for the circulation of air and the escape of perspiration, so that the shoe is ventilated, and this circulation of air is promoted by the motion of the parts in walking. The openings formed by the corrugations in the upper part of the shoe lead to the air-spaces that there always are around the sole of the leather boot or shoe, and corrugations may be provided at the sides of the rubber shoe extending down and connecting with the said air-space around the sole of the boot or shoe.

I claim as my invention—

The corrugations in an India-rubber shoe made upon a last, with a cord interposed between the lining and sheet rubber, as and for the purposes set forth.

Signed by me this 29th day of December, A. D. 1870.

LEWIS ELLIOTT, JR.

Witnesses:

GEO. D. WALKER,

GEO. T. PINCKNEY.