

GEORGE JAMES.

Soles for Boots and Shoes.

No. 126,812.

Patented May 14, 1872.

FIG. 1.

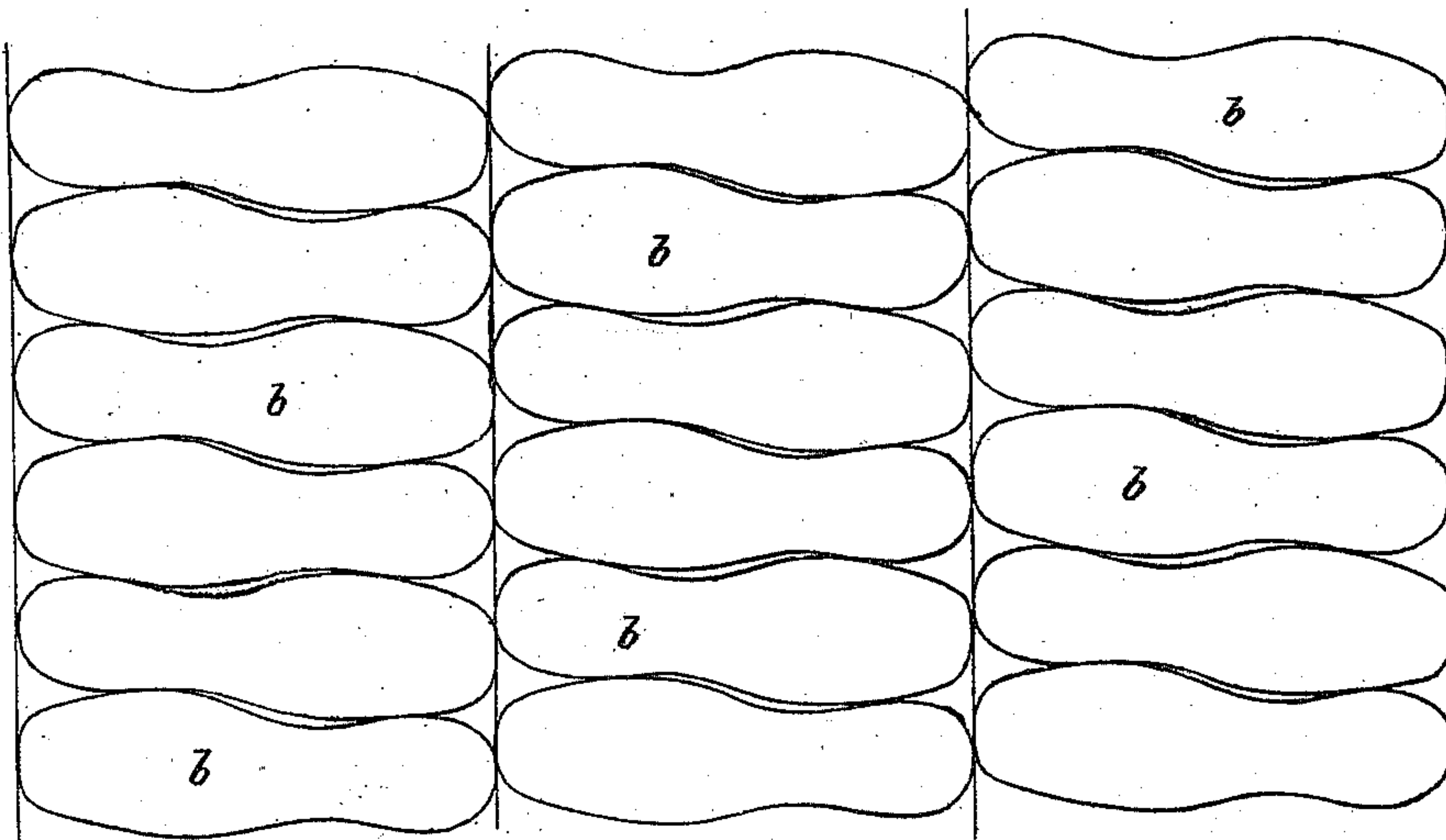
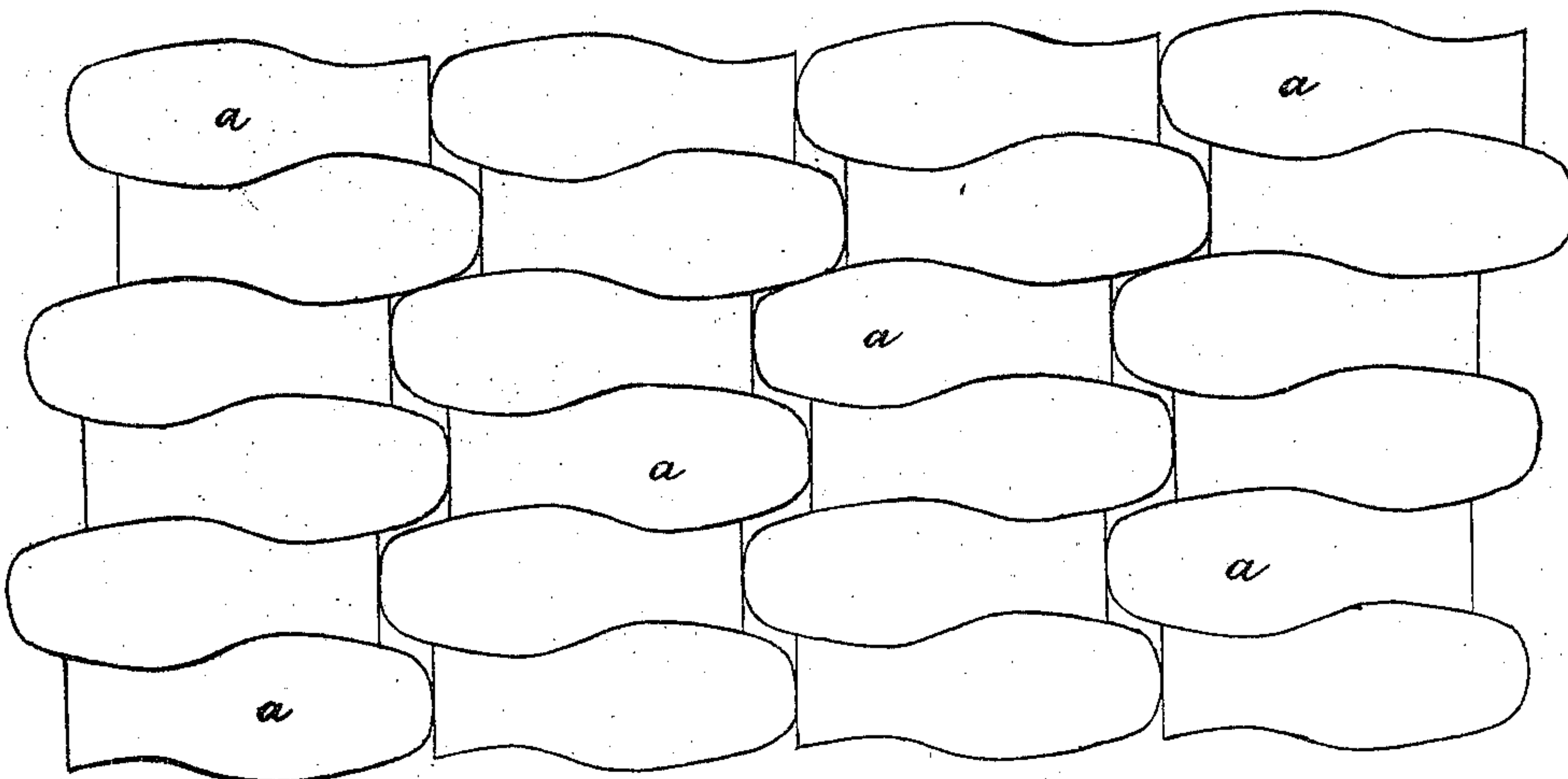


FIG. II



Witnesses

Charles E. R. Simpson  
Francis H. Reynolds

Inventor

George James

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FIG. III

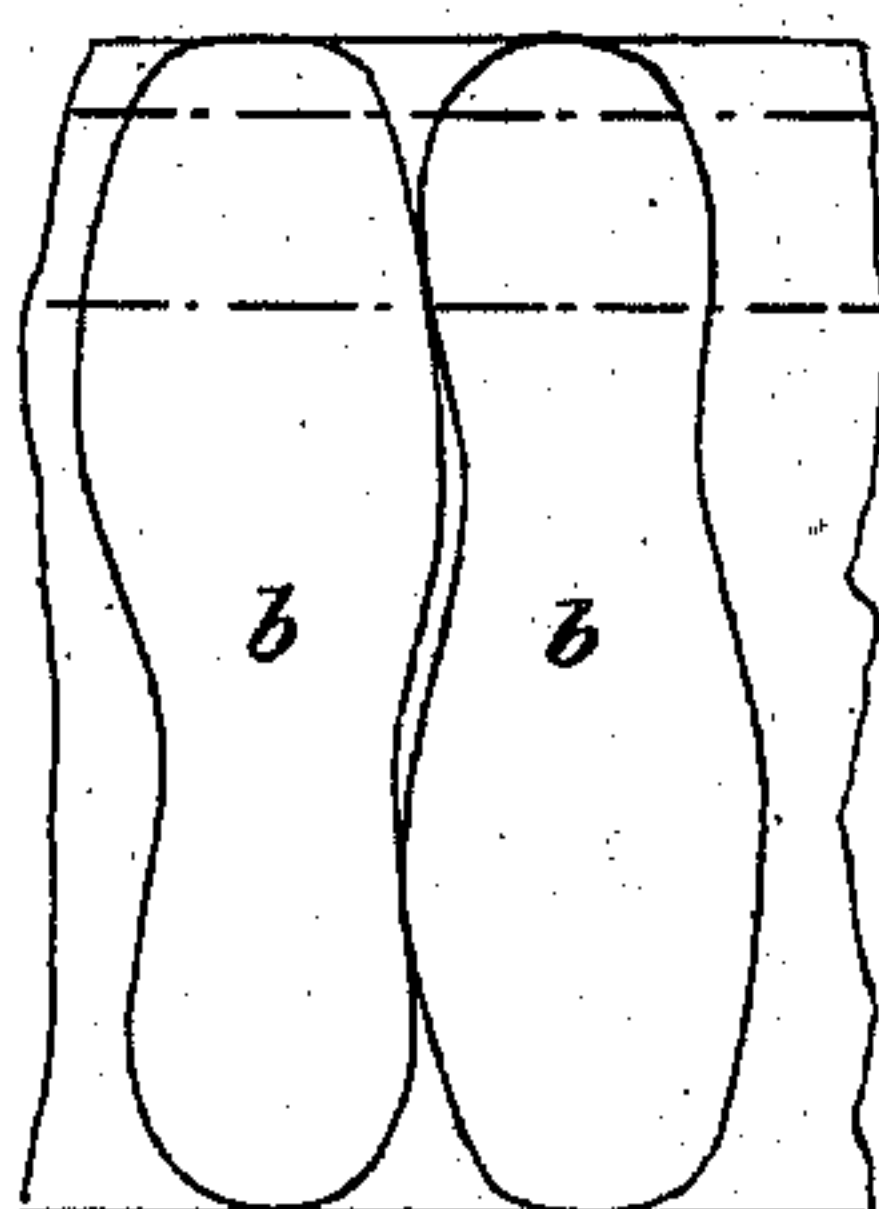


FIG. IV

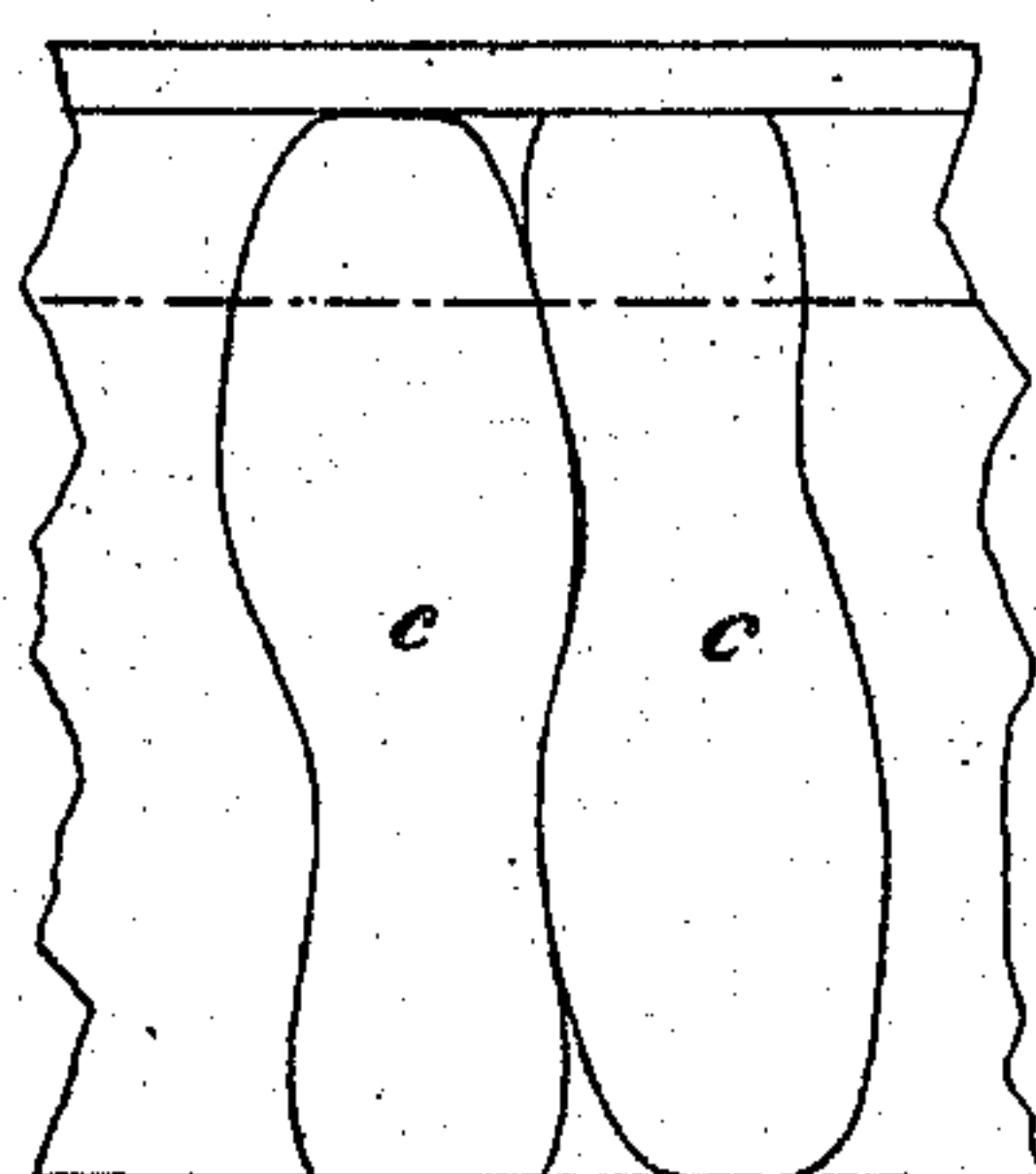


FIG. V

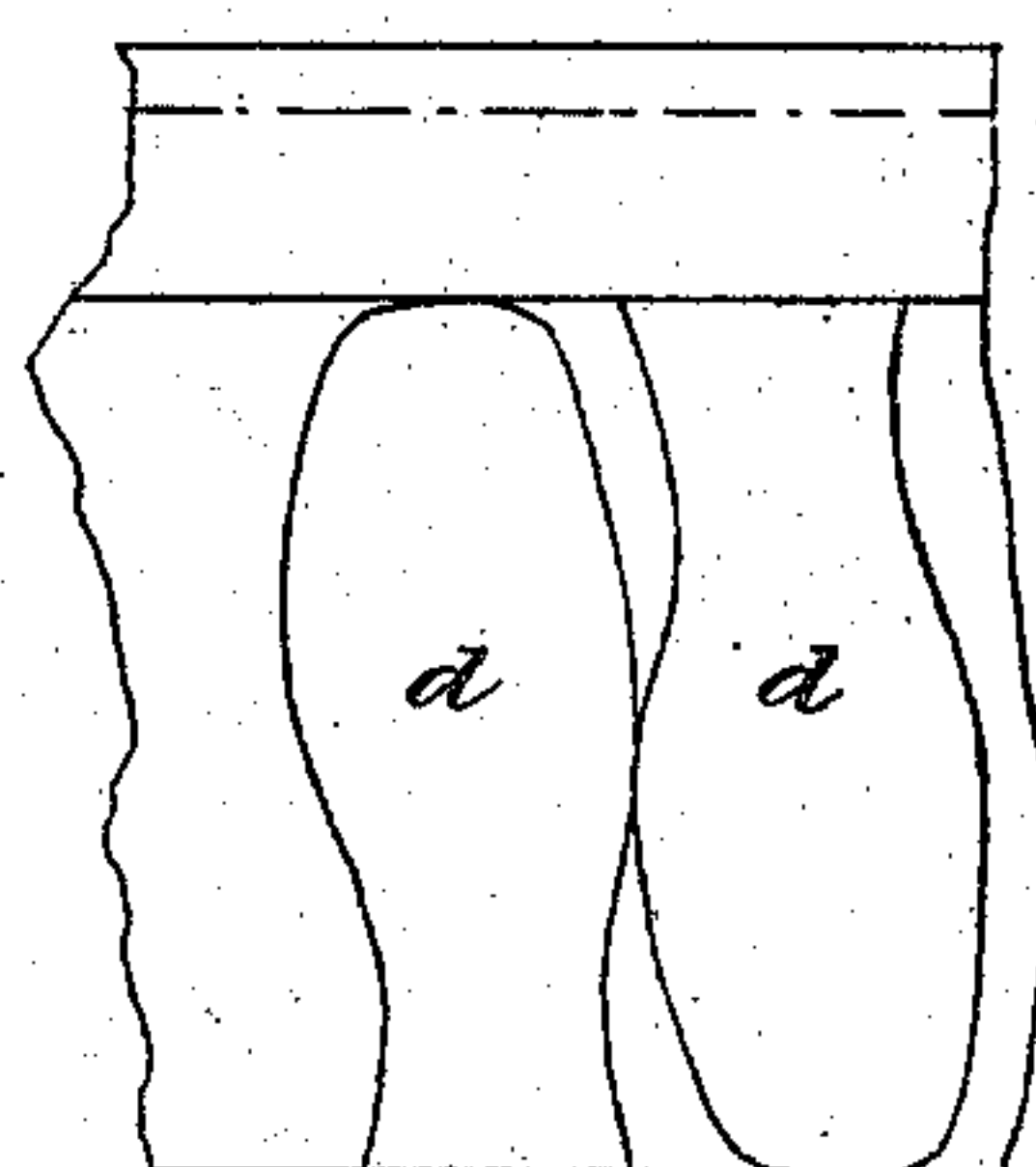
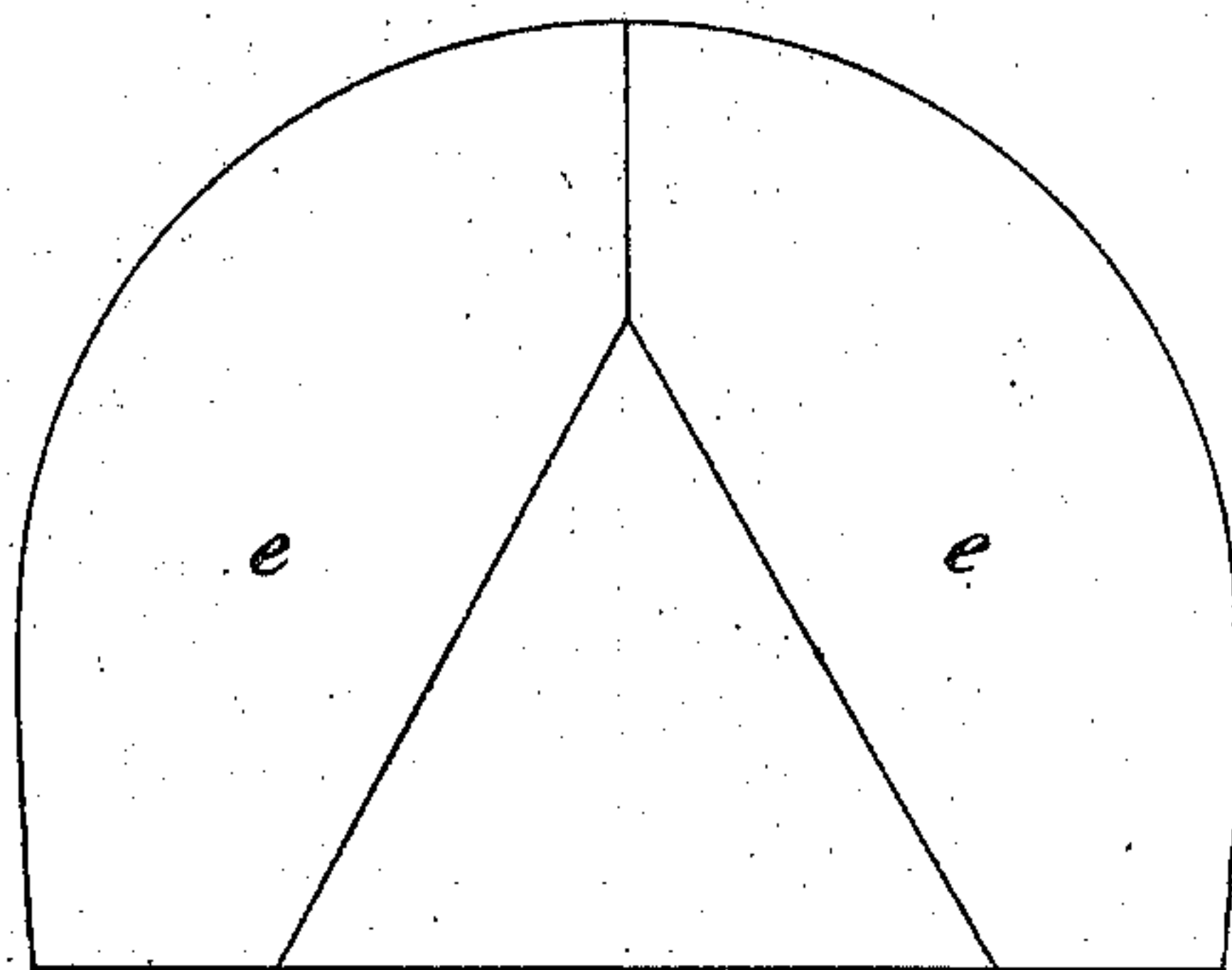


FIG. VI.



Witnesses

Charles H. Simpson  
Frank M. Reynolds

Inventor

George James



# UNITED STATES PATENT OFFICE.

GEORGE JAMES, OF MONTREAL, CANADA, ASSIGNOR TO WOODLEY HEEL  
AND SOLE CUTTING COMPANY, OF NEW HAVEN, CONNECTICUT.

## IMPROVEMENT IN MODES OF CUTTING SOLES FOR BOOTS AND SHOES.

Specification forming part of Letters Patent No. 126,812, dated May 14, 1872.

### SPECIFICATION.

*To all whom it may concern:*

Be it known that I, GEORGE JAMES, of the city of Montreal, in the district of Montreal, in the Province of Quebec, Canada, boot manufacturer, have invented new and useful Improvements in the art of Cutting the Soles of Boots and Shoes; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawing, where—

Figure 1 represents a plan of the old method of cutting soles by "stripping." Fig. 2 represents a plan of my improved method of cutting out the soles.

My invention consists in a novel and economical method of laying out from whole hides shortened soles for boots and shoes, whereby, with no increase of labor, a very large saving of materials is effected, the waste leather between the soles being reduced to a minimum.

In the drawing, *a* shows the lines of the soles as arranged by me, whereby the toes of each range of soles jut past or beyond those of the previous one, the toe of such sole taking or occupying the place which would be otherwise occupied by the heel of the sole preceding it, (if the soles had heels,) the soles being shortened at the heel part any length required, and still making a perfect "fall in," by which means but a bare shaving of the stock is lost instead of large pieces, as in the present mode of cutting. The deficiency in the length of the sole may be made up by what are termed "split-lifts." These soles are also specially adapted for use with the metallic heel, or with what is known as the Woodley heel, either of which may be readily attached without piecing out the sole at the heel. *b b* are soles cut from strips or from between parallel lines after the manner at present most in use.

The superior economy of my arrangement over the old plan will be obvious to all shoe manufacturers, and it will be seen on comparing Figs. 1 and 2 that, by my method, twenty-four (24) soles are cut out of a piece of stock of the same superficial area, as one from which,

by the old style, only eighteen could be cut—an increase of thirty-three per cent. in the number.

It will be sufficient to say that in every case "rights and lefts," "straights," and "tap-soles," a very great saving is effected by my plan.

In Walker's patent of August 22, 1865, whole soles, not shortened at the heel, are cut from whole sides. By my method there is a direct saving in the amount of leather employed, it being evident that the curved or convex lines of the toe and heel meeting in his plan, causes a far greater waste than when the curved part of the heel is taken away, as in my plan, which brings the curve of the toe up to a straight line. Again, the Walker plan necessitates consumption of good leather for the entire sole for its full length, while any pieces needed for a heel in my plan may be taken from waste pieces, which are too small for any other purpose, and may be of inferior quality. These pieces, together with the waste incident to cutting a sole with a full heel, amount, on an average, to about one-fifth or more of the whole sole. Again, with the metallic or Woodley heel, the heel part of the sole must be cut away; hence it would be useless to employ Walker's method for this class of work, as it would require the making of a sole of a kind not wanted, and consume good leather unnecessarily, and compel the cutting off of a superfluous heel.

I do not claim any novelty in the apparatus for cutting the soles, as any ordinary or suitable contrivance may be used for that purpose; neither do I claim broadly, cutting out soles all over or across a whole side of leather, or according to the method shown in Walker's patent above-named, but—

I claim—

The method herein described of laying out shortened soles upon a side of leather, and as shown in Fig. 2.

Montreal, 18th day of July, A. D. 1871.

GEORGE JAMES.

Witnesses:

CHARLES G. C. SIMPSON,  
FRAS. HY. REYNOLDS.