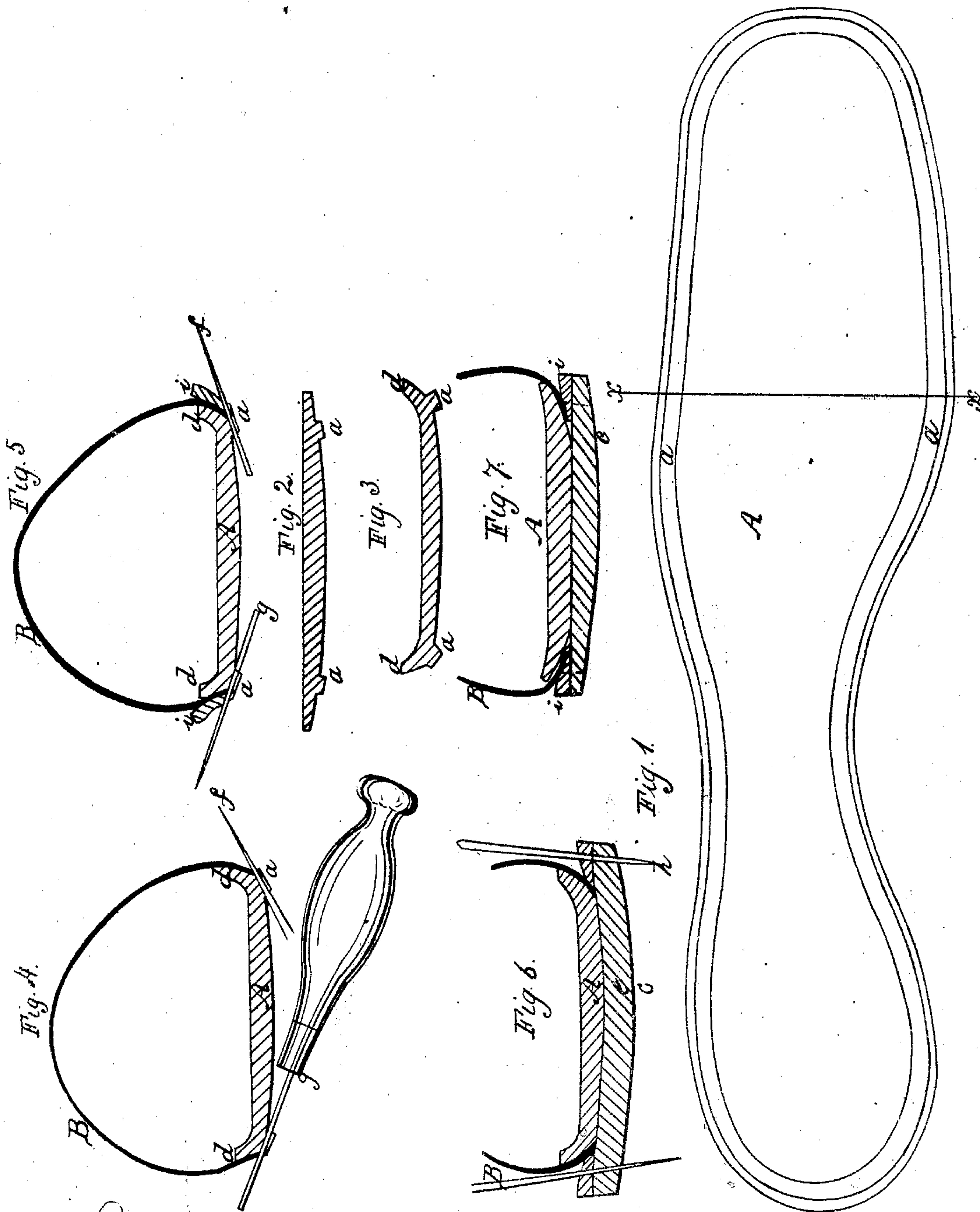


*C. O. Crosby.*  
*Boot & Shoe Sole.*

*N<sup>o</sup> 62480.*

*Patented Feb. 26. 1867*



*Witnesses*  
*Thos. H. Shumway*  
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*By his Attorney*  
*John E. Earle*



# UNITED STATES PATENT OFFICE.

C. O. CROSBY, OF NEW HAVEN, CONNECTICUT.

## IMPROVEMENT IN LEATHER SOLES.

Specification forming part of Letters Patent No. 62,480, dated February 26, 1867.

*To all whom it may concern:*

Be it known that I, C. O. CROSBY, of New Haven, in the county of New Haven and State of Connecticut, have invented a new Improvement in Leather Soles for Boots and Shoes; and I do hereby declare the following, when taken in connection with the accompanying drawings and the letters of reference marked thereon, to be a full, clear, and exact description of the same, and which said drawings constitute part of this specification, and represent, in—

Figure 1, an under-side view of the sole; Figs. 2 and 3, transverse sections to show its formation; and in Figs. 4, 5, 6, and 7, the use and object of the invention.

This invention relates to an improvement in the manufacture of soles for boots and shoes; and consists in the peculiar formation and preparation of the sole, so that the stitching may be done by a straight needle or awl, whereby in that class of work termed "turned" shoes the upper-leather may be attached to the sole by a sewing-machine, and in that class of work termed "welted" the welt and upper may be first secured to the insole, and the outsole stitched to the welt by a sewing-machine, thus dispensing with hand-sewing, or performing the sewing done by hand with greater facility than has heretofore been done.

To enable others to construct and use my improvement, I will proceed to describe the same as illustrated in the accompanying drawings.

The sole A is cut of the required form from ordinary sole-leather, in the usual manner. I then cut away or otherwise form the leather so as to reduce the thickness of the edge and form a raised rib, *a*, upon the surface of and near the edge of sole, as seen in Figs. 1 and 2. Then, while the leather is yet in a wet or flexible state, turn up the edge around the sole, as seen at *d*, Fig. 3. I thus turn up the edge in dies prepared for the purpose or by other convenient device, and when dry and set in this form the sole is ready for the market as an article of manufacture.

Its use, which will fully explain the object of the invention, is illustrated in figures. First, as in Fig. 4, for turned work. In this case the sole A is placed upon the last in the

usual manner, the last being formed so as not to interfere with the turned-up edge *d*, and the upper-leather B placed upon the last and drawn down to the proper form, and secured occasionally by nails to the sole, so that the upper-leather lies closely against the turned-up edge *d* and the rib *a*, as seen in Fig. 4. In this position the upper is secured to the sole, the stitching being done by the use of a straight awl, *f*, or by a needle, *g*, operated by a sewing-machine, (which machine will constitute the subject of another application.) Thus secured, the shoe is removed from the last, and the shoe turned and finished in the usual manner. Or, if for welted work, proceed as before described for turned work, placing the welt *i* as seen in Fig. 5, and secure the welt and the upper together to the sole, as before described, and as shown in Fig. 5. In this case the sole A becomes the insole. When the welt has been secured, turn down the welt and prepare the outer surface to receive the outsole, in the usual manner. Then place thereon the outsole C, and tack it as for common hand-sewing. It will be observed that the edge of the insole is yet turned up, and, by being so turned, the welt and outsole project so far beyond the upper-leather that a needle or straight awl, *h*, will freely pass down without interference with the upper-leather, as seen in Fig. 6, enabling me to employ a sewing-machine to stitch the sole to the welt in similar manner as by common hand-stitching, or to facilitate hand-stitching by the use of a straight awl. When the sole is secured, remove the last; or, if preferred, the last may be removed before the stitching is done—as its presence is not absolutely necessary—and insert a last upon which the edge will be turned down, as seen in Fig. 7, after which proceed to the finishing of the boot in the usual manner.

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

The herein-described sole as a new article of manufacture.

C. O. CROSBY.

Witnesses:

JOHN E. EARLE,

JOHN H. SHUMWAY.