

C. H. KRIPPENDORF.
MANUFACTURING SHOES.

No. 179,030.

Patented June 20, 1876.

Fig. 1.

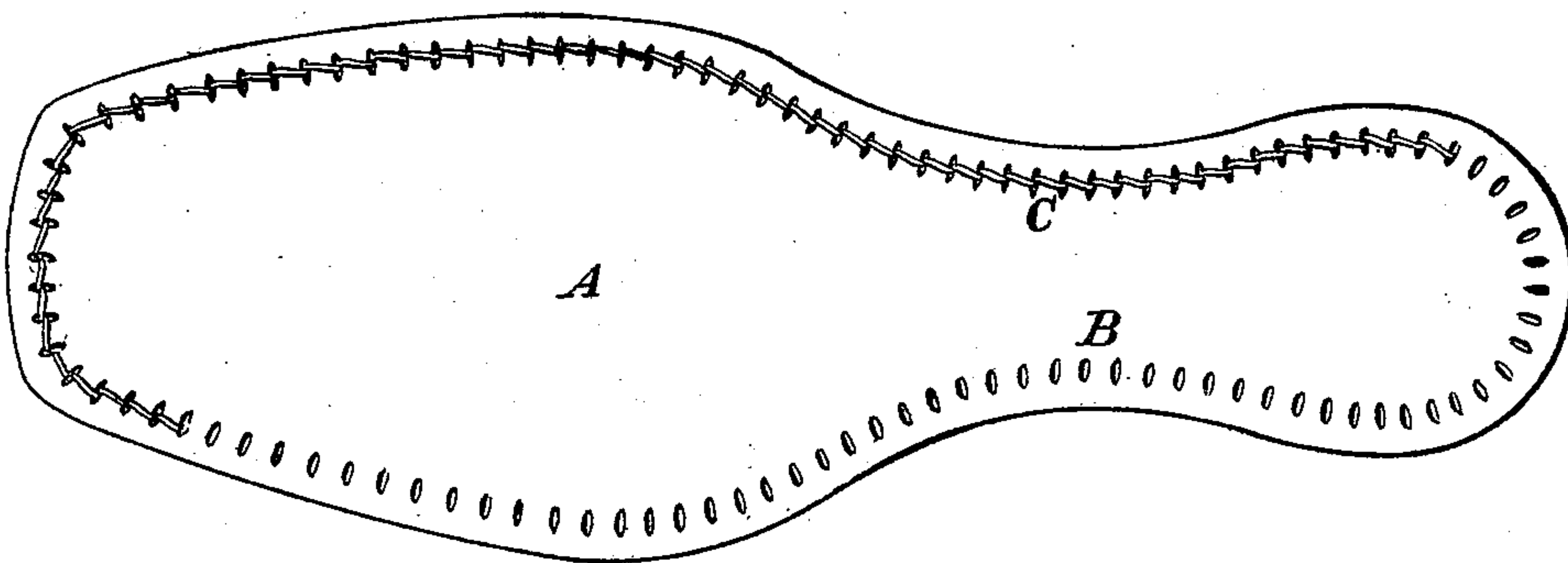


Fig. 2.

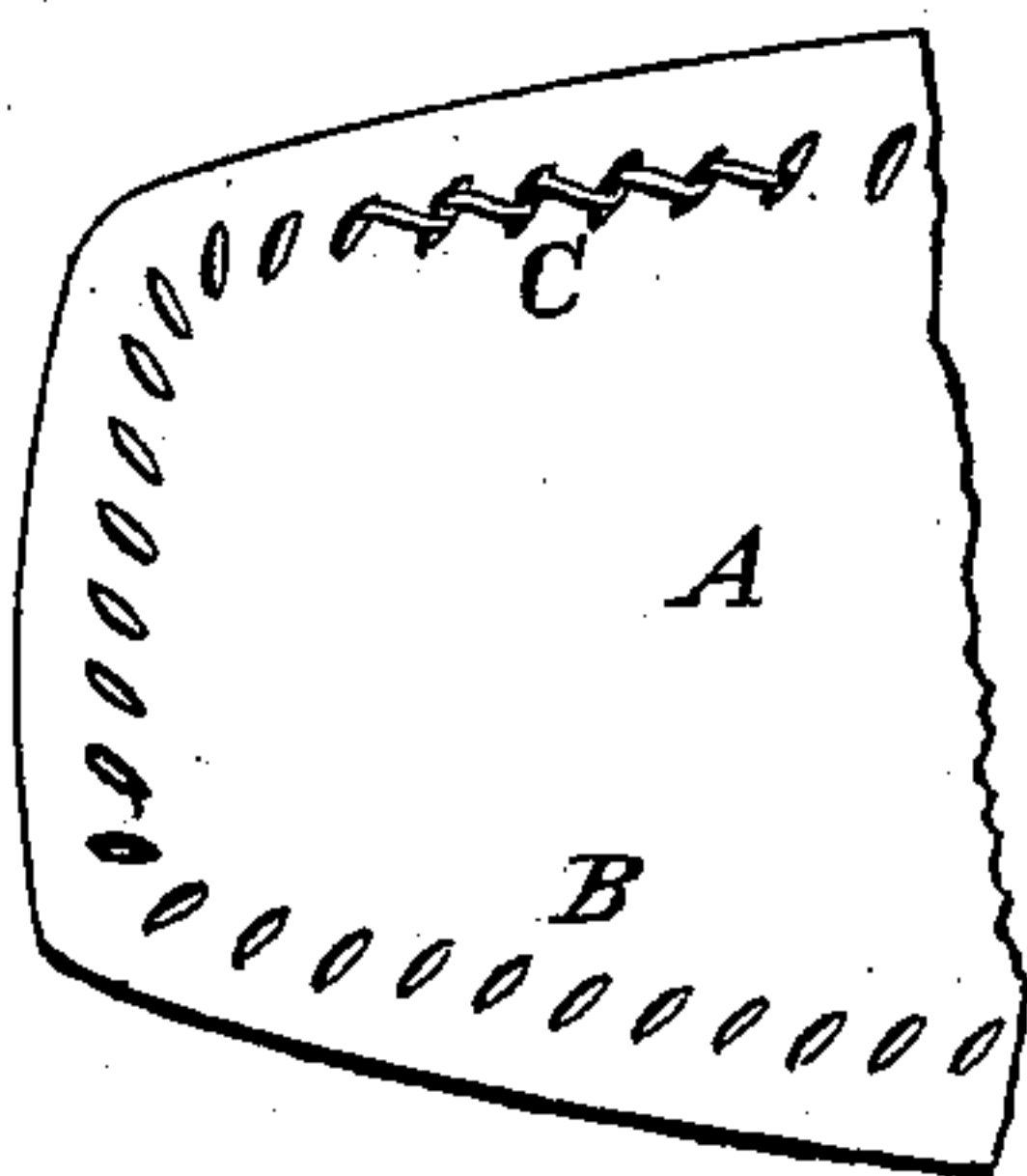


Fig. 3.

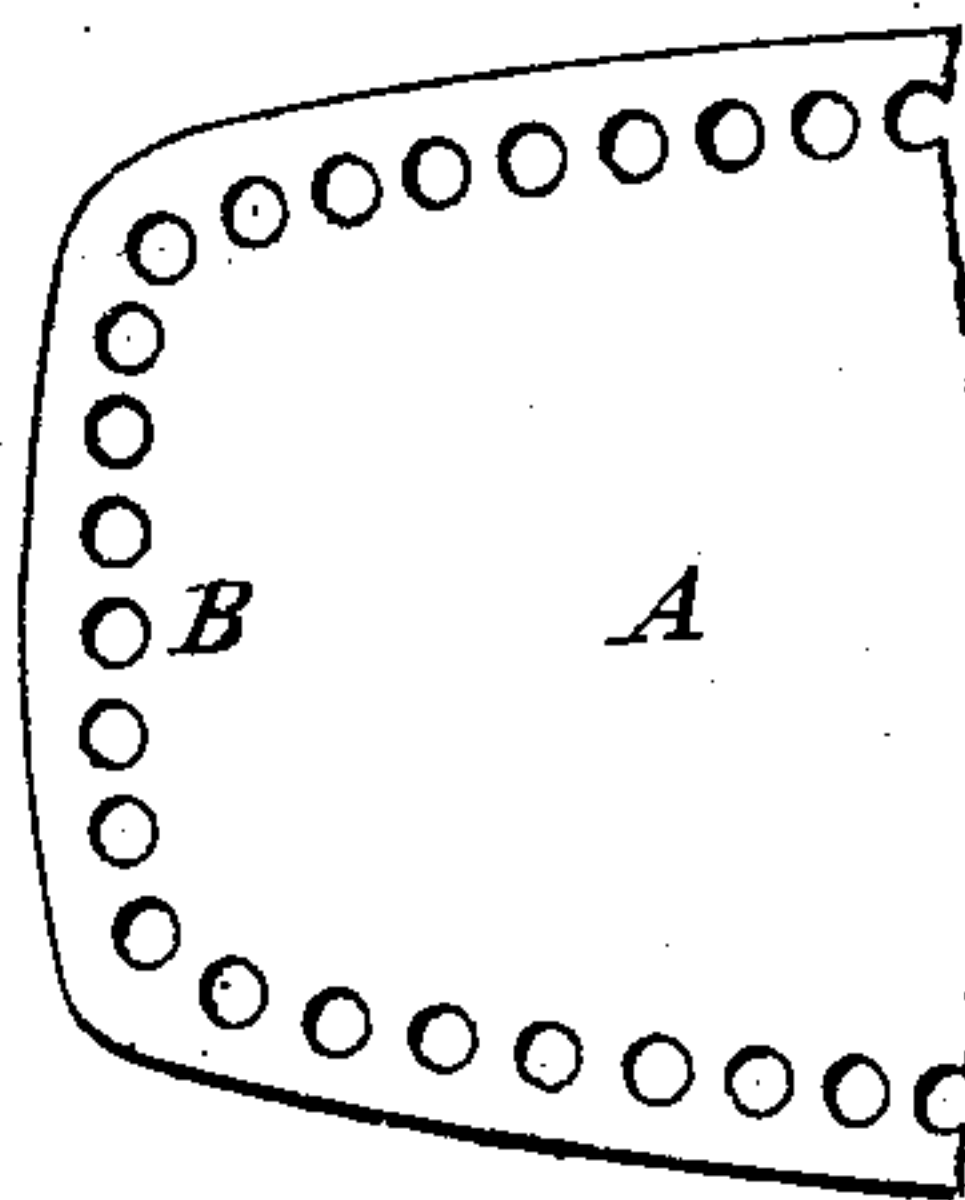
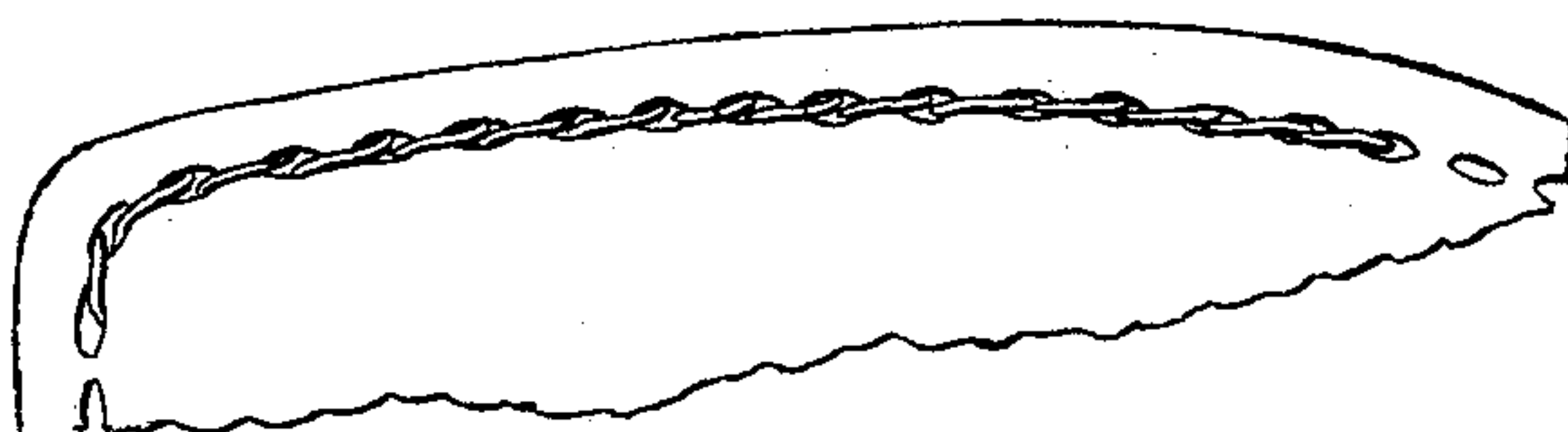


Fig. 4.



Attest.
Homace E. Johnson.
Le Blond Burdett

David H. Krippendorf
By Knight Bros. Atty

UNITED STATES PATENT OFFICE.

CARL H. KRIPPENDORF, OF CINCINNATI, OHIO.

IMPROVEMENT IN MANUFACTURING SHOES.

Specification forming part of Letters Patent No. **179,030**, dated June 20, 1876; application filed May 22, 1876.

To all whom it may concern:

Be it known that I, CARL H. KRIPPENDORF, of Cincinnati, Hamilton county, Ohio, have invented a new and useful Improvement in Machine-Sewed Boots and Shoes, of which the following is a specification:

The object of my invention is to avoid the defects which accompany the use of the customary round needle in the sewing of boot and shoe soles to their uppers. The round holes made by such needles, if the stitches are sufficiently short for a neat and permanent seam, operate to cut away so much of the leather as to endanger ripping in subsequent use; and if, to avoid this defect, the stitches are made long, the seam is both loose and unsightly, and the thread more liable to chafe and fray out than where shorter stitches are employed.

In order to avoid these defects I employ a flat needle, which is passed through the material with its hook at about right angles to the line of the feed, so as to produce needle-holes of an elliptical or oblong form, which is relatively narrow, in the line or direction of the seam, so as to leave a considerable space or interval between the consecutive holes, even with short stitches.

In the accompanying drawings, Figure 1

represents part of a sole sewed on my plan. Fig. 2 shows a modification of my improvement. Fig. 3 represents the holes formed by the present or common mode of sewing. Fig. 4 represents the condition of such round holes, after having been stretched by the stitching.

A represents the under side of a shoe-sole sewed on my plan, B being the needle-holes and C the waxed thread forming the stitches. The needle-holes are oblong, and so presented as to be comparatively narrow in the direction of the seam or line of stitching. These holes may for this purpose have their longer diameters at right angles to the line of stitching, as at Fig. 1, or somewhat oblique thereto, as in Fig. 2.

I claim as new and of my invention—

The process of attaching the soles of boots and shoes to the uppers by stitches from outside to inside through holes whose greatest diameter is transverse to the line of the seam, substantially as set forth.

In testimony of which invention I hereunto set my hand.

CARL H. KRIPPENDORF.

Attest:

GEO. H. KNIGHT,
HORACE E. JOHNSON.