J. McCLOSKEY.

METALLIC SEAMS.

No. 179,484. Patented July 4, 1876.

Fig. 1.

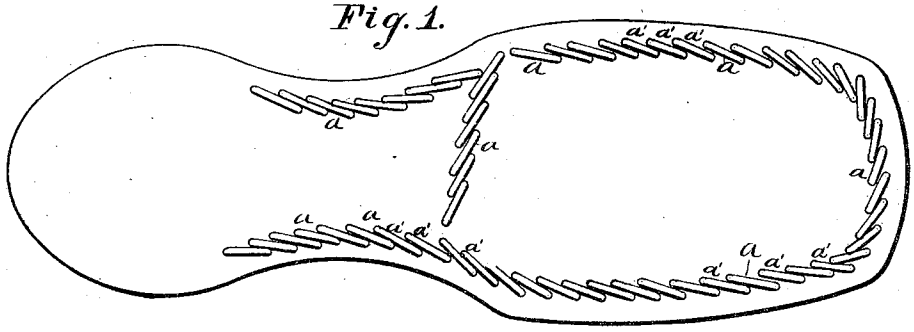


Fig 2.

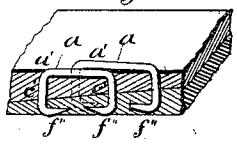


Fig. 4.

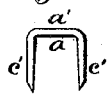
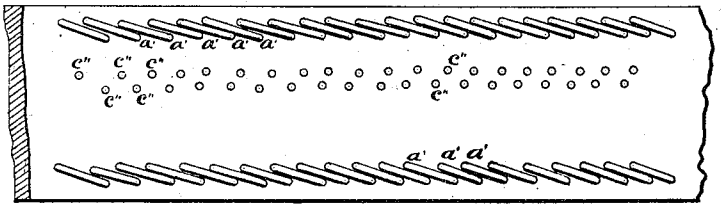


Fig. 3.



Witnesses:

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Atty.

UNITED STATES PATENT OFFICE.

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IMPROVEMENT IN METALLIC SEAMS.

Specification forming part of Letters Patent No. **179,484**, dated July 4, 1876; application filed November 12, 1875.

To all whom it may concern:

Be it known that I, JOHN MCCLOSKEY, of the city, county, and State of New York, have invented an Improvement in Metallic Seam for Boots and Shoes, of which the following is a specification:

The object of this invention is to combine in the sole of a boot or shoe the cheapness of the pegged sole, the strength of the riveted sole, and the flexibility of that made with the stitched seam. To this end the invention consists in a metallic seam formed of metal staples, arranged obliquely in regular succession and with their extremities turned over to separately hold or rivet them in place, each staple being thus arranged to supplement the holding action of the two adjoining staples, and yet permitting more or less bending of the sole without liability of displacing the staples or of rupturing the material in which they are fixed.

Figure 1 is an inverted plan view of a sole formed with a seam according to my invention, and Fig. 2 is a similar view, showing two of said seams parallel with each other. Fig. 3 is a detached view of one of the staples with which the seam is formed.

In order to form a seam according to my invention I first provide any requisite number or quantity of the staples *a*, (shown detached in Fig. 4,) the said staples comprising a straight top, *a'*, and two shanks, *c'*. The staples may be of wire bent to the requisite form, or may, if preferred, be of wrought metal, "dropped out" by mechanism of any suitable kind. The shanks *c'* must be of a length somewhat greater than the thickness of the sole to be sewed, in order that when put in place they may project sufficiently beyond the inner surface to be clenched, turned over, or upset, to permanently fix them in position. Being thus provided with the staples, I proceed to perforate the sole along the line of the proposed seam with two parallel lines of holes, *c''*, the diameter of these holes corresponding to the thickness of the shanks of the staples, and the holes of one line being opposite the spaces between the holes of the other line, as shown by way of illustration in the central portion of Fig. 3. I then insert the staples obliquely, with one shank in the holes of the one line, and the other shank in those of the other line, each staple lapping past the one immediately preceding, and being itself lapped upon by the one succeeding, as shown in Figs. 1 and 3. The staples are inserted from the outer surface of the sole, and when inserted, as just set forth, the extremities of the shanks *c'* project beyond the inner surface a distance of—say from one-sixteenth to one-eighth of an inch. The said ends are then clenched or turned over, as represented at *f''* in Fig. 2, thereby fastening each staple in place, and the line of lapping staples, each independently fixed, but each supplementing the two adjoining ones, form a strong, flexible, metallic seam, possessing the advantages combined of the pegged, the nailed, and the sewed sole. The ends of the staples may be clenched or turned over by any suitable means, but preferably, by placing the sole upon an iron last or support, after the staples have been put in position, and then causing a drop-hammer to descend upon the outer side of the seam, which, by driving the staples in upon the last, clench or upset their ends in the manner required, simultaneously and effectively.

What I claim as my invention is—

The metallic seam made up of overlapping staples, arranged obliquely to each other, and clenched separately, forming a continuous seam, substantially as herein descried.

JOHN MCCLOSKEY.

Attest:

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