

(No Model.)

H. C. GROS.
BOOT OR SHOE.

No. 501,830.

Patented July 18, 1893.

Fig. 1.

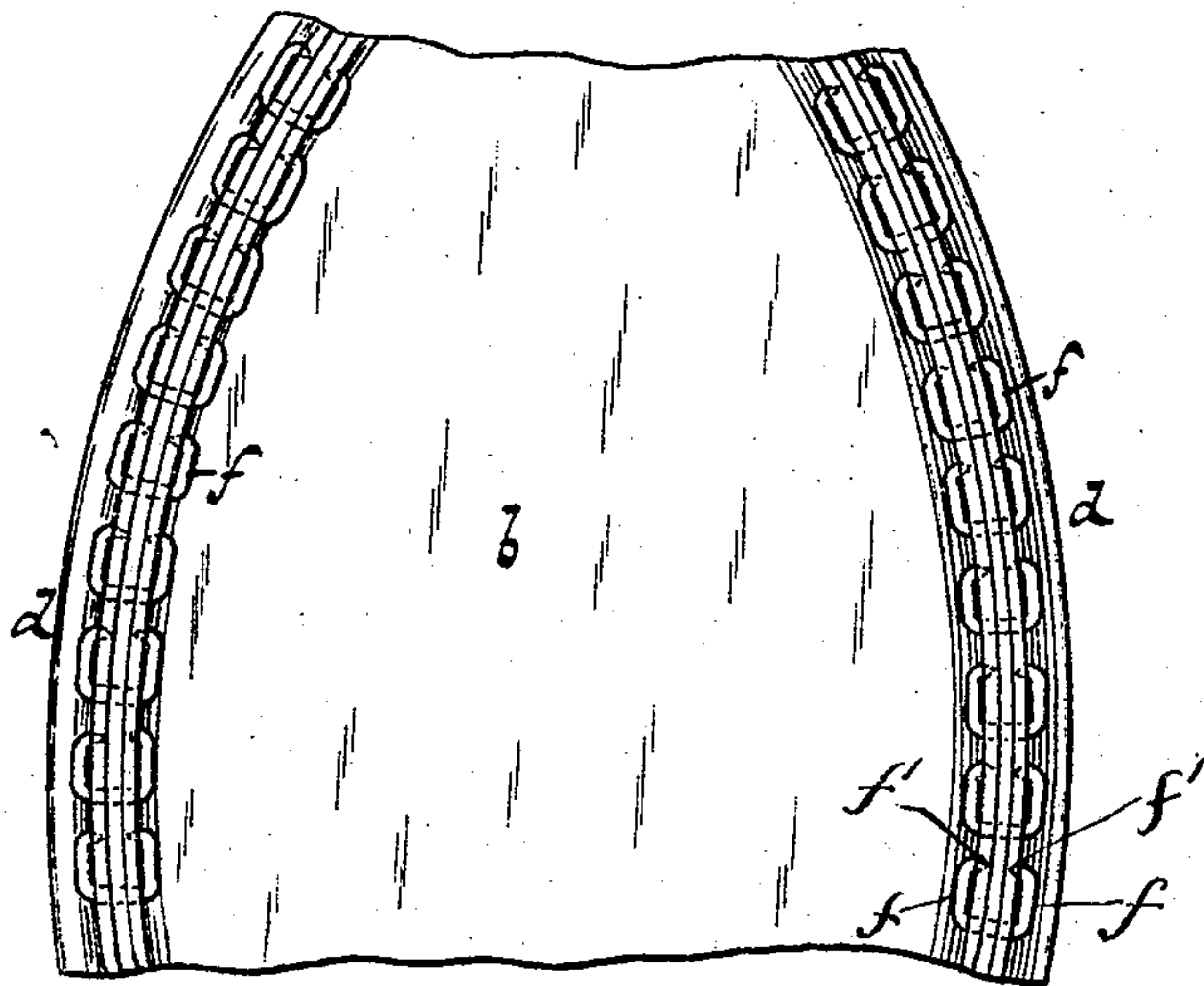
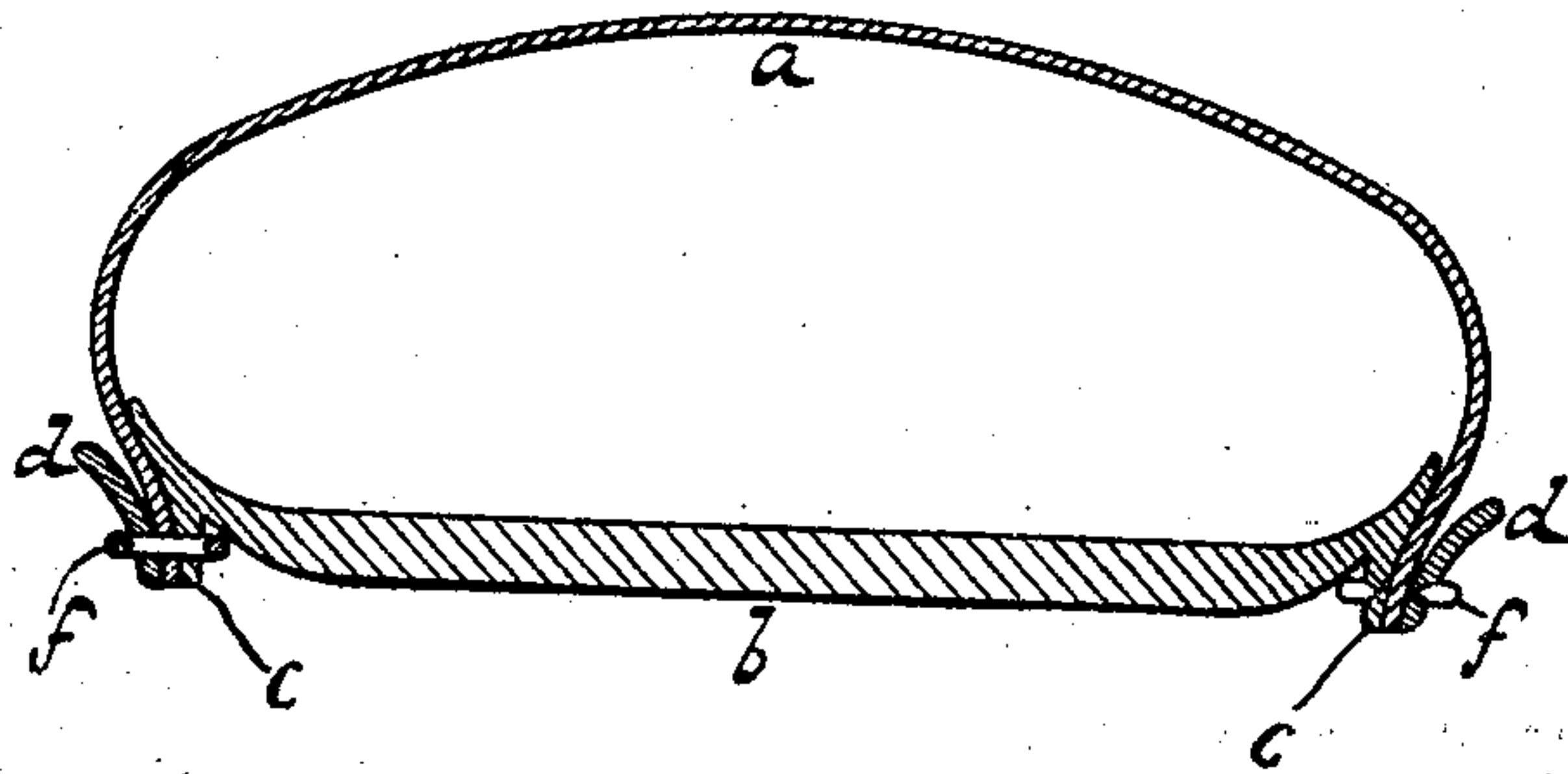


Fig. 2.



WITNESSES:

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UNITED STATES PATENT OFFICE.

HERMANN CARL GROS, OF OBER-URSEL, GERMANY.

BOOT OR SHOE.

SPECIFICATION forming part of Letters Patent No. 501,830, dated July 18, 1893.

Application filed December 15, 1892. Serial No. 455,246. (No model.)

To all whom it may concern:

Be it known that I, HERMANN CARL GROS, a citizen of Germany, residing at Ober-Ursel, near Frankfort-on-the-Main, Germany, have
5 invented new and useful Improvements in Boots or Shoes, of which the following is a specification.

In sewing the welt to the insole and upper of a boot or shoe through the medium of
10 waxed thread, the work is executed by what is termed a chain stitch, and the chain of the stitch lies either in the channel of the insole, or on the outer surface of the welt, producing a bulging or swelling on one side or the other,
15 which is objectionable. In addition to this the awl unduly enlarges the hole when the double waxed thread is drawn through by the needle-hook, which impairs the durability of the stitches.

20 The object of my invention is to avoid the objections stated, and to provide a boot or shoe with novel, simple, efficient, and durable means for connecting the insole, the upper and the welt.

25 To accomplish this object my invention consists in the features of construction and combination or arrangement of parts hereinafter described and claimed, reference being made to the accompanying drawings, in which—

30 Figure 1 is an inverted plan view of sufficient of a boot or shoe to illustrate my invention; and Fig. 2 is a transverse sectional view of the same.

35 In order to enable those skilled in the art to make and use my invention, I will now describe the same in detail.

Referring to the drawings, the letter *a* indicates the upper, *b* the insole, and *d* the welt. These parts are connected through the medium
40 of a series of independent fastenings, each of which is composed of a piece of wire extending through the welt, the upper, and the loop *c* on the insole. The end portions of each piece of wire are bent in the same direction
45 to form a pair of arms or members *f*, *f*, which

lie against the outer side of the welt and the inner side of the loop *c* on the insole. The extremity of each arm or member *f* is pointed as at *f'*, and caused to penetrate the leather or material, and when the fastening devices
50 are in position, as in Fig. 1, the arms or members *f* of each fastening are substantially parallel, and the pointed extremities extend toward each other into the material of the welt *d* and loop *c*. It will be observed that
55 each piece of wire occupies but a single hole, and its arms or members *f* lie respectively on the inside and outside of the boot or shoe, and bear snugly against the welt and the loop. By arranging each piece of wire in a single
60 hole it is unnecessary to puncture and thus weaken the insole with an excessive number of holes, whereby the durability of the boot or shoe is increased and a lighter or thinner insole can be used.
55

My invention can be readily carried into practical operation by suitable machinery, since the wire can be fed from a roll, and be cut into pieces of the required length as
70 needed, and each piece passed into a single hole previously formed by an awl.

Having thus described my invention, what I claim is—

A boot or shoe having the insole, the upper, and the welt provided with a series of awl
75 holes, and a wire piece inserted through each hole and bent to form two substantially parallel arms *f* which lie respectively inside and outside the boot or shoe, and have pointed extremities extending toward each other and
80 penetrating the material of the boot or shoe, substantially as described.

In testimony whereof I have hereunto set my hand in the presence of two subscribing witnesses.

HERMANN CARL GROS.

Witnesses:

ALVESTO S. HOGUE,
JEAN GRUND.