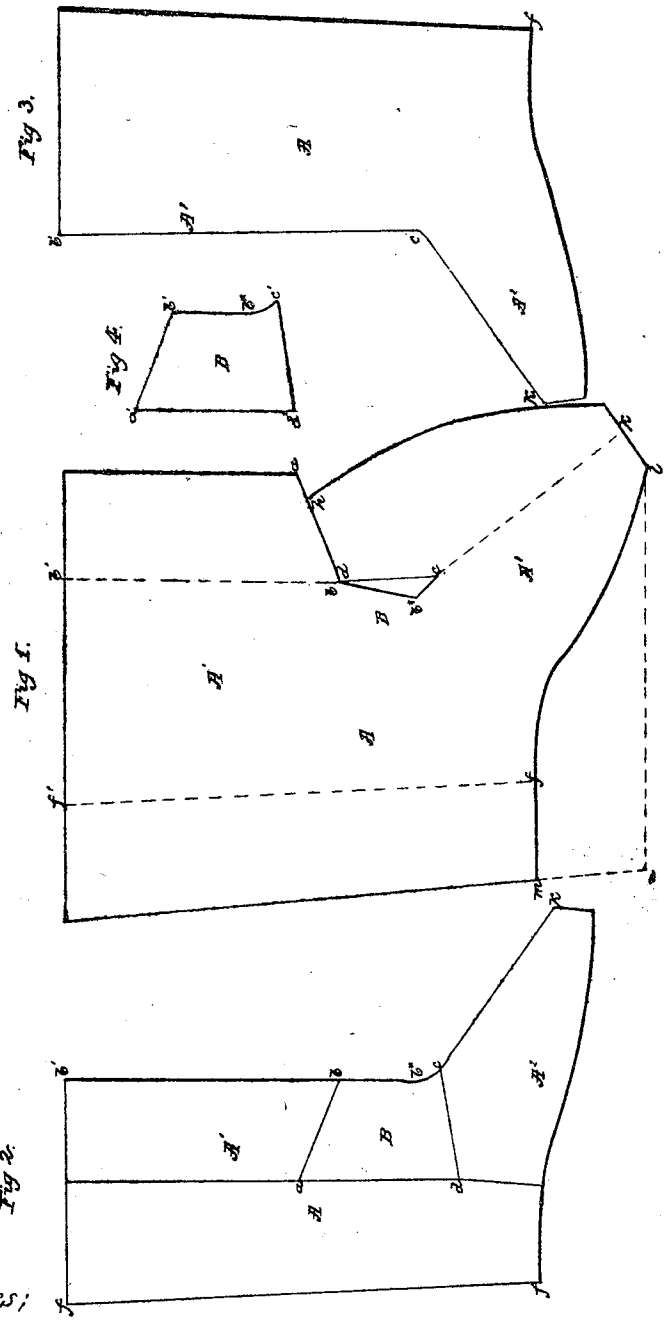
L. DUVALL.

MANUFACTURE OF BOOTS.

No. 25,325. Patented Sept. 6, 1859.



Witnesses;

R. Schmitt

Wm. Wisehart

Inventor;

Lewis Duvall

UNITED STATES PATENT OFFICE.

LEWIS DUVALL, OF BIG SPRING, KENTUCKY.

BOOT.

Specification of Letters Patent No. 25,325, dated September 6, 1859.

To all whom it may concern:

Be it known that I, LEWIS DUVALL, of Big Spring, in the county of Meade and State of Kentucky, have invented certain new and useful Improvements in the Manufacture of Boots; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1, represents the shape of the piece of leather used for my boots before it is folded. Fig. 2, is a view of one side of the upper produced by the folding of the said piece. Fig. 3, is a view of the opposite side of the same.

Similar letters of reference indicate corresponding parts in the three figures.

This invention consists in cutting out or otherwise forming a piece of leather or of cloth or other material that cannot be stretched by crimping to a certain novel shape, which by the aid of two gores, admits of its being folded without crimping into the required form for the upper of a boot, the whole being so arranged that it can be cut from a piece of leather nearly square so as to save as much material as possible, leaving the boot entirely single with no hard seam across the foot, and requiring no additional fixtures in order to give it the proper finish.

To enable others skilled in the art to make and use my invention I will proceed to describe it.

A, represents a piece of leather or cloth, cut in the shape represented in Fig. 1, the part A′, forming the leg and the part A², the foot of the boot. An incision is made into this piece in the line *a*, *b*, and a piece *b*, *b**, *c*, is cut out so as to gain the required crimp. The gore piece B, is represented separately in Fig. 4. It is made of the same material as the piece A, and it is cut out in such a manner, that its side *b*′, *b*′*, *c*′, is equal to the line *b*, *b**, *c*, the sides *c*′, *d*′, equal to *c*, *d*, the sides *d*′, *a*′, equal to *a*, *d*, (Fig. 2,) and the line *a*′, *b*′, equal to *a*, *b*.

In order to fold the boot the leg part A′, is folded in the lines *b*, *b*′, and *f*, *f*′, the foot part A², is folded in the line *c k*, and the gore piece B, is inserted into the space inclosed by the lines *a*, *b*, *b*, *b**, *c*, *c*, *d*, and *d*, *a*, as clearly represented in Fig. 2, and the upper is ready for jointing, no other seam being required except those in the lines mentioned above and one seam extending on one side from the top of the upper down to the bottom.

It will be noticed that my boot can be cut from a piece of leather nearly square, those pieces which are cut out by following the lines *l*, *d*, *m*, *m n*, and *n l*, serving to make up for the gore pieces B, and C, so that a No. 9, rip boot cut according to my invention requires a piece of leather measuring 15 inches each way whereas in other similar methods of cutting out boots, such as that one, patented by J. Scrimgeour June 9, 1857, a piece of material at least 15 inches by 20 is required for the same size boots, from which it appears that by the use of my invention about one quarter or 25% of material is saved. A great difference exists also in the manner of gaining or forming the crimp between my method and that one of J. Scrimgeour's, as he gains his crimp by a tongue in the center, while I gain the crimp by the two gores B, and C, and as the gore B, is inserted in the enlarged portion of my form, which increases in size in the line up and down the leg from the top of the counter, there can be no strain on this gore. My counter is fitted on as in common boots, so that I can use side lining as usual; with the boots cut according to J. Scrimgeour's method on the other hand the counter runs around the heel, whereby the leg is made to come forward, like the quarter of a shoe, making the boot double half its length, and a side lining jointed to material thus doubled would make a hard disagreeable seam across the instep. My boot is entirely single, and has no hard seam across the foot and requires no additional fixtures. Scrimgeour's boot requires a long distance of blind fitting and a band in the leg to hide the bristle, which causes additional labor so that nothing is gained as compared with the usual method of cutting and fitting boots. My boots fit most beautiful to the foot, as they draw in line from the gore B, toward the counter, thus causing a good fit across

the instep and preventing the foot from slipping forward toward the toes of the boot.

What I claim as new and desire to secure by Letters Patent, is:

The within described method of cutting the piece of leather or other suitable material A, and uniting the same with the gores B, and C, so that when it is folded in the lines *b*, *b'*, and *f f'*, and if the gores are brought in the proper position, said piece A, together with the gores assumes the required shape for the upper of a boot, substantially as specified.

LEWIS DUVALL.

Witnesses:

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