

(No Model.)

J. L. THOMSON.

MANUFACTURE OF SOLES, TAPS, AND HEELS FOR BOOTS AND SHOES.

No. 256,077.

Patented Apr. 4, 1882.

FIG-1-

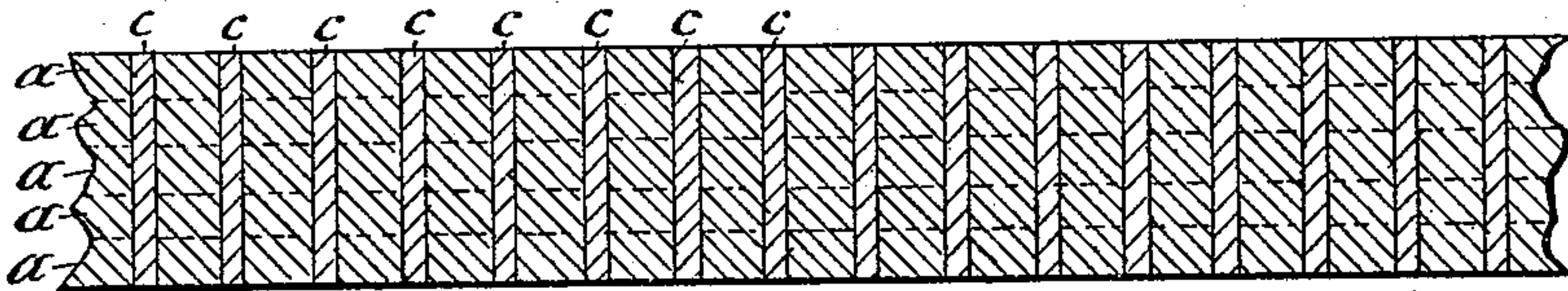
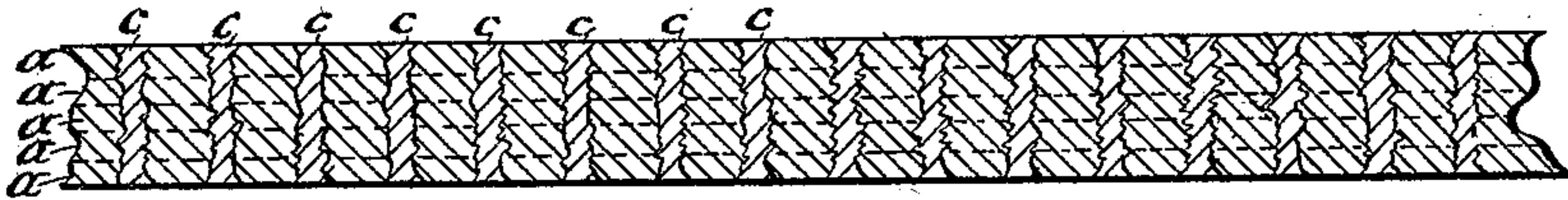


FIG-2-



WITNESSES=

Wm L. Raymond
C. Bendixen

INVENTOR=

Judson L. Thomson
per Dault, Laess & Hay
his Atty

UNITED STATES PATENT OFFICE.

JUDSON L. THOMSON, OF SYRACUSE, NEW YORK, ASSIGNOR OF ONE-HALF
TO SAMUEL S. HARTWELL, OF WANTAGE, NEW JERSEY.

MANUFACTURE OF SOLES, TAPS, AND HEELS FOR BOOTS AND SHOES.

SPECIFICATION forming part of Letters Patent No. 256,077, dated April 4, 1882.

Application filed August 11, 1881. (No model.)

To all whom it may concern:

Be it known that I, JUDSON L. THOMSON, of Syracuse, in the county of Onondaga, in the State of New York, have invented new and
5 useful Improvements in the Manufacture of Soles, Taps, and Heels for Boots and Shoes, of which the following, taken in connection with the accompanying drawings, is a full, clear, and exact description.

10 The nature of this invention consists in a novel method and means of preparing sole-leather, whereby a material is obtained which is more durable and better adapted for various purposes than ordinary sole-leather.

15 In the annexed drawings, Figure 1 is a transverse section of a piece of sole-leather prepared in accordance with my invention, and showing its condition before it is subjected to pressure; and Fig. 2 shows its condition after
20 it is subjected to pressure and ready for use.

Similar letters of reference indicate corresponding parts.

My improved material may be composed of one or more thicknesses, *a a*, of leather, ac-
25 cording to the quality of leather used and thickness of material required. Generally I use the flabby or softer parts of sole-leather, which, when treated by the process hereinafter described, becomes more durable and has more
30 solidity than the best sole-leather. This leather I generally first moisten sufficiently to render it soft throughout, then run it through a skiving-machine, which takes off the unevenness of the flesh side of the leather, and after that
35 run it through heavy presser-rollers to solidify and still further even the thickness. I then cut out of it, by suitable dies, the soles, taps, or heels, as may be desired. These soles, taps, or heels I again moisten with a water-proof
40 glutinous liquid, and then I insert into them a multitude of wooden pegs, as illustrated in Figs. 1 and 2 of the drawings. Said pegs are distributed nearly or quite uniformly over the leather and short distances apart. The ends
45 of the said pegs are made to protrude through the leather. The protruding ends thereof are subsequently cut off, and the surfaces of the leather smoothed by skiving, planing, or any other suitable means. After this, and while

the leather is still moist, the aforesaid material is pressed between rollers or between the bed-plate and follower of a press, and subjected to sufficient pressure to upset the pegs and to split and distort them at various angles inside the leather, thereby giving the said
55 pegs a firm hold, which prevents the leather from swelling again when exposed to moisture. The interspersions of the pegs exerts a lateral pressure on the pierced leather, and thus renders the same still more compact, at the same
60 time the flexibility of the distorted pegs renders the leather sufficiently pliable for soles and taps.

The presentation of the ends of the pegs at the surfaces of the leather, in conjunction with
65 the compressed leather, produces a material of superior solidity and durability, and the uses to which it may be applied are as various and numerous as those of ordinary sole-leather.

For many purposes it will be found beneficial to render this material impervious, which
70 may be done by any suitable method.

I do not claim simply a sole or tap-sole, made of several layers of thin leather, united by short sections of fine wire or other metallic pins or screws driven closely together, as I
75 am aware the same is not new; neither does such a construction accomplish the object of my invention—*i. e.*, to produce from cheap material sole-leather which shall be of uniform
80 density, and possess at least the same elasticity, durability, and all other desirable qualities as the best of sole-leather, all of which I obtain by the process hereinbefore described. Therefore

85 What I do claim as my invention, and desire to secure by Letters Patent, is—

The within-described process of producing from scrap and inferior parts of leather soles, taps, and heels for boots and shoes, the same con-
90 sisting in first moistening the said inferior material, then trimming off the fleshy and uneven side thereof, then passing it through heavy press-rollers, then dieing out from it soles, taps, or heels, then again moistening said soles, taps, or heels with a water-proof glutinous liquid, then driving into the same numerous wooden
95 pegs, close together, then trimming off the pro-

truding ends of said pegs and planing or other-
wise smoothing the sides of the said soles, taps,
or heels, and, finally, while the same are still
moist, subjecting them to heavy pressure
5 against opposite sides, so as to split and dis-
tort the pegs inside of the leather, substan-
tially in the manner herein described.

In testimony whereof I have hereunto signed

my name and affixed my seal, in the presence
of two attesting witnesses, at Syracuse, in the 10
county of Onondaga, in the State of New York,
this 30th day of July, 1881.

JUDSON L. THOMSON. [L. S.]

Witnesses:

WM. C. RAYMOND,
C. H. DUELL.