T. Hersey,

Shoe Upper.

No. 107,045. Patented Sept. 6. 1870.

Fig. 1

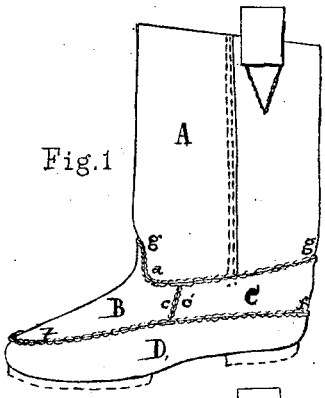


Fig. 2

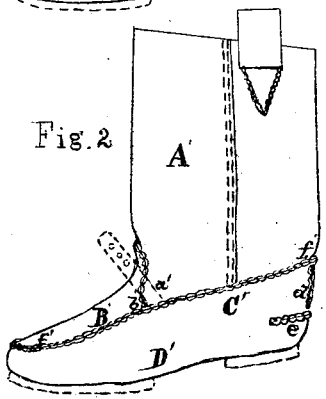


Fig. 6.

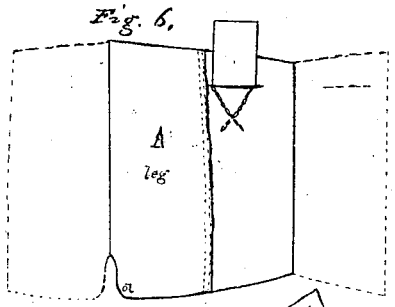


Fig. 7

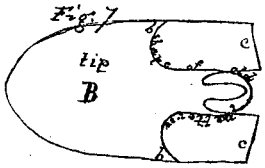


Fig. 8

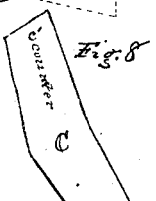


Fig. 9

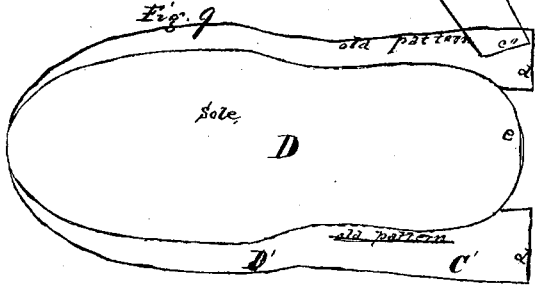


Fig. 4

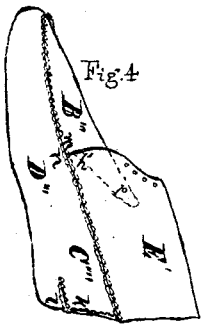


Fig. 3

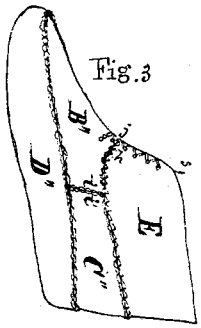


Fig. 10.

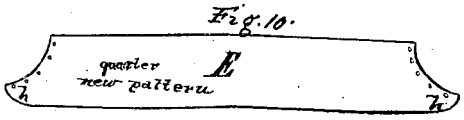


Fig. 11

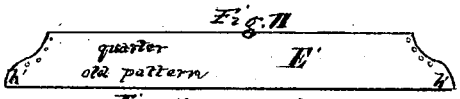


Fig. 12.

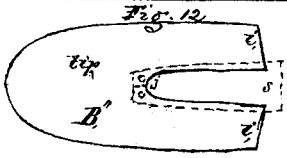


Fig. 14.

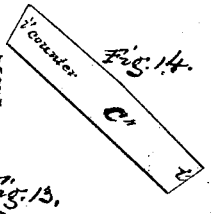


Fig. 5.

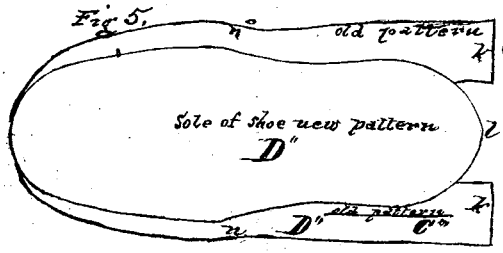
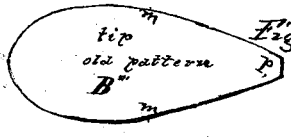


Fig. 13.



Witnesses

Horace S. Smith

Fred. H. Coombs

Inventor

Thomas Hersey.

UNITED STATES PATENT OFFICE.

THOMAS HERSEY, OF BANGOR, MAINE.

IMPROVEMENT IN MOCCASIN BOOTS AND SHOES.

Specification forming part of Letters Patent No. **107,015**, dated September 6, 1870.

To all whom it may concern:

Be it known that I, THOMAS HERSEY, of Bangor, in the county of Penobscot and State of Maine, have invented certain new and useful Improvements in the Manufacture of Moccasin Boots and Shoes or Pacs; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

The nature of my invention consists in so cutting the leather or material of which the moccasins or pacs are manufactured as to be able to economize the use of the most valuable or sole leather in proportion to the less valuable leather or other material which may be used for the other parts, and also to adapt the various thicknesses of the material to the part of the moccasin or pac in which it is to be used; secondly, in enabling the manufacturer to avoid the seams in heels, where they are more liable to rip, and to place them at the sides, where they are less liable to rip, and where they will help very materially to support the counters, and also to avoid several sharp corners in the seams, as will hereinafter be explained.

In the accompanying drawings, Figure 1 is a moccasin boot or boot-pac constructed with the improved patterns, and showing how the seams are arranged to support the boot. Fig. 2 is a moccasin boot or pac manufactured in the usual manner, and with the different parts cut by the usual patterns. Fig. 3 is a shoe-pac or moccasin shoe made with the improved patterns. Fig. 4 is a shoe made after the usual style and cut by the old patterns. Figs. 5 to 14, inclusive, show the old and new patterns of the several parts of the "pac."

In the drawings of the patterns marked with the letters corresponding to the letters on Figs. 1, 2, 3, 4, A is the leg, which may be cut very nearly alike in both Figs. 1 and 2, although in Fig. 1 the sharp angle at *a'*, Fig. 2, is avoided, and the pattern allows more curve in the seam, as seen at *a*, Fig. 1.

B is the tip, and the difference of the two patterns is shown by the heavy line, which shows the shape of the old patterns, and shows at *b b* why it is nesessary to make the sharp angle *b*, Fig. 2.

C is the new style of counter, and it is joined at the ends *c' c''* to the parts *c c* of the tip B. This seam is shown in Fig. 1, and it can readily be seen that cutting the counter in this way allows a use of an appropriate thickness of leather, while the seam at the heel, as seen at Fig. 2, is avoided, and the seams are brought to the side, where they help to support the boot and keep it in shape.

By reference to D it will be seen that the counter has always been cut, with the sole, out of the thickest and most expensive part of the leather, and the parts *d d* and *e* have been brought together, as shown at *d e*, Fig. 2.

The shape and comparative size of the old pattern are shown by the heavy lines, and it can readily be seen at D' C' how much of the best stock can be saved by cutting the sole after the pattern D and using it in connection with the new style tip B and counter C, which may just as well be of inferior stock.

An improved shape to the boot can be attained by the new patterns, because the sole, being cut separate from the counter, can be cut in to correspond with the instep of the foot, and the seam *f f*, being placed low around the side of the foot, stiffens and supports the boot or shoe, and this, in connection with the seam at *c c'*, serves to conform the pac somewhat to the hollow and narrow part of the foot, and keeps it in shape.

It is found that the greatest economy is obtained in the difference between the old and new patterns for the soles, and by actual experiment it is found to be in the ratio of twenty-three pairs of soles of the new pattern to seventeen pairs of soles of the old pattern cut from or marked out of the same hide. This difference can readily be understood by reference to D, where the red lines show the old style and the black lines the new pattern.

It has been found necessary in the old pattern to use a strap across the instep of the foot, as shown by the dotted lines at Fig. 2, to keep the boot up in place on the foot and to prevent running over. This is objectionable, as the snow and ice collect under the strap at *a'* and impede the free movement of the ankle of the wearer, and melt and soak into the boot in the part where it is most desirable to keep the boot as dry as possible, in order to be able to get it off and on to the feet easily. In the new style this strap becomes unnecessary, as the seams and the improved shape of the boot sufficiently support

it. These boots and shoes, of both styles, are frequently fitted with heels and taps, as shown by the dotted lines.

In the manufacture of shoes fully as important benefits are obtained. By reference to Fig. 3 it will be seen that the same advantages are gained in economy of the most expensive stock and in the support derived from a judicious arrangement of the seams.

In the different patterns E and E′ it will be seen that E is so rounded at *h* that the seam formed by its junction with the tip B″ at *h*, Fig. 3, is a continuous curved seam up to *j*, while in the old style the counter E′ is sharp at *h*′, and forms a sharp angle in the seam *h*, Fig. 4, and the tip B‴, being sewed around to *m* of the tip and *n* of the sole, makes a bad joint at *h*′ *m n*, Fig. 4.

It will readily be seen that a great strain must of necessity always be exerted on the joint of the tip with the sole at *n*, Fig. 4, in putting the foot into the shoe. This is wholly avoided in the new tip B″, which, being joined at its ends *i i* to the ends *i*′ *i*′ of the counter C″, and being sewed at *j* to the ends *h h* of the quarter E, throws the whole strain of the foot onto the leather at *j* while pulling on the shoe. This tip B″ is provided with a tongue, *s*, fastened at *j*, and sometimes the tip is cut a little way down at *j*, in which case a couple of holes are put in to lace up.

The same proportionate saving is effected in the soles of the shoes as in the soles of the boots, and the shoe laces up much neater and easier over the instep of the foot than the old style.

To enable others skilled in the art to make and use my invention, I will now proceed to describe its construction and operation.

I take leather tanned expressly for moccasin-leather, or any other suitable material, and cut the leg A, tip B, counter C, and sole D. I place them in the relative positions shown in Fig. 1 and sew them firmly together, forming a boot or pac with the seams as shown in the drawings. I proceed in a similar manner in forming the shoe, taking the quarter E, tip B″, counter C″, and sole D″, and, placing them in the relative positions shown in Fig. 3, I sew them firmly together, forming the shoe as shown at Fig. 3.

I do not claim any improvement in ordinary boots or shoes formed with soles made of sole-leather or similar rigid material, and which soles are flat and connected to the upper beneath or about in the same plane with the sole of the foot of the wearer; but

What I do claim is—

1. The described improvement in the patterns or method of cutting the sole D or D′ of a moccasin boot or shoe or pac, as shown in Figs. 5 and 9, whereby the most expensive part of the stock is economized and the part ordinarily used as a counter is omitted and left to be cut in separate pieces from other and less valuable stock.

2. The tip B of a moccasin boot or pac, cut as shown in Fig. 7, whereby the position of the seams on the boot are changed and placed as at Fig. 1, thereby economizing stock, stiffening the boot in those parts where it is needed, and conforming the sole and its adjacent parts more nearly to the shape of the foot of the wearer.

3. A moccasin boot or shoe constructed with a counter, C or C′, as and for the purpose described.

4. A moccasin boot constructed with a leg, A, tip B, counter C, and sole D, the parts being shaped and arranged as in Fig. 1.

5. A moccasin shoe constructed with a tip, B″, cut in the form shown in Fig. 12, and for the purpose set forth.

6. A moccasin shoe constructed with a quarter, E, cut in the form shown in Fig. 10, and for the purpose set forth.

7. A moccasin shoe constructed with a quarter, E, tip B″, counter C″, and sole D″, all joined or sewed together as described, and shown in Fig. 3.

THOMAS HERSEY.

Witnesses:

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FRED. H. COOMBS.