

C. HOUGHTON.
Over Shoe or Gaiter.

No. 203,152.

Patented April 30, 1878.

Fig:1.

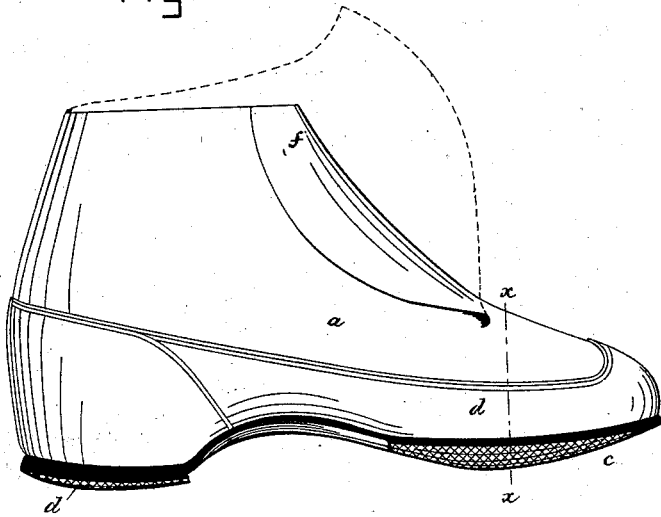


Fig:3.

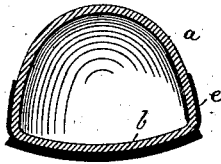
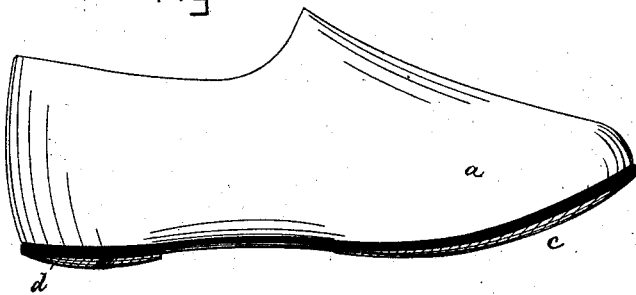


Fig:4.



Fig:2.



Witnesses.

W. J. Pratt.
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UNITED STATES PATENT OFFICE.

CHARLES HOUGHTON, OF BOSTON, MASSACHUSETTS, ASSIGNOR TO MERINO SHOE COMPANY.

IMPROVEMENT IN OVERSHOES OR GAITERS.

Specification forming part of Letters Patent No. 203,152, dated April 30, 1878; application filed March 2, 1878.

To all whom it may concern:

Be it known that I, CHARLES HOUGHTON, of Boston, county of Suffolk, State of Massachusetts, have invented an Improvement in Overshoes or Gaiters, of which the following is a specification:

This invention relates to an improvement in overshoes or gaiters, or that class of shoe having an india-rubber sole, coupled or not with an india-rubber foxing to extend about the shoe above the sole, both at the body of the foot and the toe and heel, or either.

The invention consists in a shoe as an improved article of manufacture, it being composed of a seamless upper, made, in the form desired, from wool felted in one piece, with an india-rubber outer sole affixed.

The upper of this improved shoe is produced by winding a sliver web proceeding from a carding-engine about a suitably-shaped rotating former, having its axis of rotation with reference to the carding-engine changed at suitable intervals, so as to wind the sliver from end to end upon the former, each successive layer crossing the preceding one. This mass of wool sliver wound upon the former, when of suitable weight, is severed centrally and axially, forming two bats, each of which serves for the production of a shoe. The end of the bat to form the toe of the shoe is then hardened or partially hardened, a cloth being placed inside of it to prevent the inner surfaces adhering to each other.

When the forward end of the bat, which forms the toe of the shoe, is sufficiently hardened, then the open end, which is to form the heel or rear of the shoe, is slit at the top to form an aperture to receive the foot; and if there is too much wool in this part of the bat to form the heel, a part of it is removed by tearing or cutting, and then the two sides are wrapped by and around each other, closing the opening of such end of the bat to form the rear or heel of the shoe, after which it is hardened in any usual manner, thus producing a seamless blank suitable for a shoe, and approximating the form of a shoe. The blank is then shrunk and filled to the required size,

pains being taken to keep the blank as near as possible in the form desired for the finished shoe. After this a last is driven into the blank to shape it, and the blank is allowed to dry upon the last, the form of which it will retain permanently.

A shoe to be worn over another shoe having a heel should be made with a depression for the reception of the heel. To provide for this in the felted seamless shoe, the last on which the shoe is shaped and dried is provided at the under portion of the heel with a projection of the size and form necessary to shape the blank to receive the shoe-heel. After this seamless shoe-blank has been properly shaped, it has applied to its bottom an india-rubber or gum sole, which is caused to adhere thereto by cement, or in any way suitable to cause rubber or its compounds to adhere to a fibrous fabric.

Figure 1 of the accompanying drawings represents, in side elevation, an overgaiter embodying this invention; Fig. 2, an overshoe of lower cut; Fig. 3, a section of Fig. 1 on the line *x x*; and Fig. 4, a detail, to be herein-after described.

The upper *a*, including the bottom portion *b*, which serves as the inner sole, is formed from wool sliver, in one piece, as hereinbefore described. To such bottom *b* and upper is attached an india-rubber sole, *c*, having, if desired, a suitable heel, *d*, the sole and heel being of any desired thickness and pattern, and being attached to the felt bottom in any suitable or well-known way. If desired, the lower portion of the upper above the sole *c* may be covered with a foxing, *e*, of india-rubber, such foxing covering either the heel or toe, or both, or extending entirely around the shoe, as shown in Fig. 1.

In Fig. 1 the overgaiter has a flap, *f*, in which may be made button-holes; or it may receive buckles, straps, or other fastenings. This flap (shown lifted in dotted lines) will, when lowered, lap over the portion of the upper at the instep. This seamless flap *f* is not herein claimed as of my invention. The portions of this seamless upper to receive buttons

or other fastenings, or in which button-holes are to be made, may be re-enforced by pieces of cloth or leather, as at *e*, Fig. 4.

I do not claim the method described of making and hardening the blank for the shoe.

I claim—

1. As an improved article of manufacture, a shoe composed of an upper and bottom felted in one piece, as described, and an india-rubber sole, substantially as and for the purpose set forth.

2. A shoe composed of an upper, *a*, and bottom *b*, in one integral piece, combined with an outer sole, of india-rubber, and a foxing, substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

CHS. HOUGHTON.

Witnesses:

G. W. GREGORY,
L. A. BAXTER.