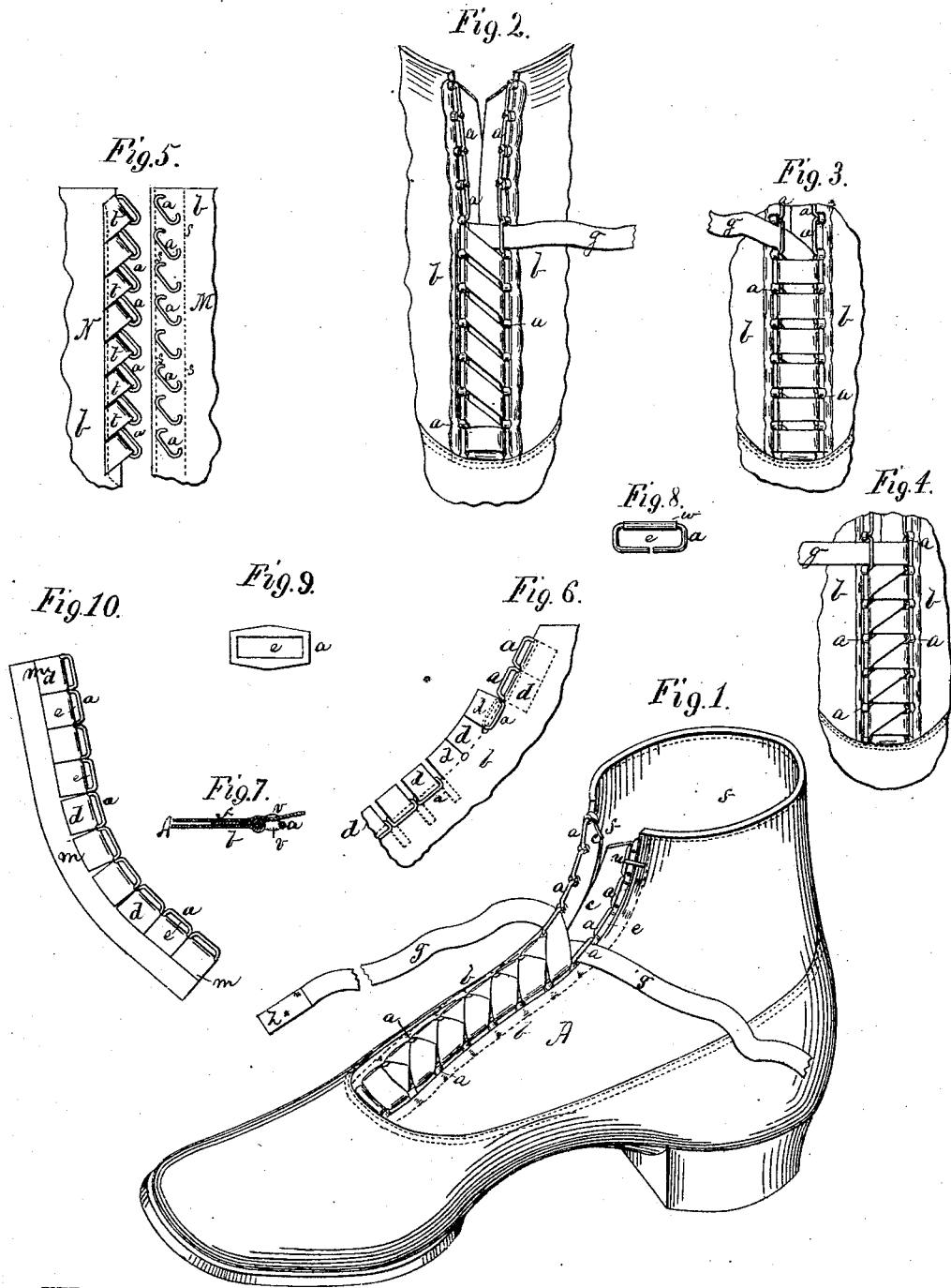


P. PLANT.
Laced Boots and Shoes.

No. 163,804.

Patented May 25, 1875.



Witnesses.
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UNITED STATES PATENT OFFICE.

PASCAL PLANT, OF WASHINGTON, DISTRICT OF COLUMBIA, ASSIGNOR OF ONE-HALF HIS RIGHT TO PETER HANNAY, OF SAME PLACE.

IMPROVEMENT IN LACED BOOTS AND SHOES.

Specification forming part of Letters Patent No. 163,804, dated May 25, 1875; application filed May 6, 1875.

To all whom it may concern:

Be it known that I, PASCAL PLANT, of Washington, in the county of Washington and District of Columbia, have invented certain new and useful Improvements in Laced Boots and Shoes; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to which it pertains to make and use the same, reference being had to the accompanying drawing and to the letters of reference marked thereon, which form a part of this specification, in which—

Figure 1 represents a view, in perspective, of a lace-boot having my improvement applied thereto; and Figs. 2, 3, and 4, front views of a detached portion of the front part of the boot, showing different methods of lacing it. Fig. 5 represents a similar view, showing different methods of arranging and attaching the lacing-loops to the lacing-edges of the upper of the shoe or boot. Fig. 6 represents an elevation of a portion of the lacing-edge of the outer upper as prepared to have the loops applied thereto, being a detail view; and Fig. 7, a detail section of a detached portion of one of the lacing-edges of the upper as taken through one of the loops of Fig. 1. Figs. 8 and 9 represent plans or side views of two forms of the the lacing-loop as detached from the shoe. Fig. 10 represents a plan of a supplementary strip provided with lacing-loops, and which are fastened thereto in a temporary manner, ready to be permanently attached to a gaiter-upper by being inserted between the outer upper and lining and then sewed fast thereto.

My invention relates to a new and improved mode of constructing lace gaiters, boots, or shoes, by means of which a snug fit may be had without injury to the front of the foot, as in the case of the rounded laces, and by which a much neater and more handsome finish is imparted to the shoe when laced.

The improvement consists in providing the lacing-edges of a shoe, gaiter, or boot with a double series of lacing loop-pieces having an elongated, in contradistinction to a round,

opening, for use in connection with broad, flat laces.

It also consists in a supplementary strip provided in a temporary manner with a series of metal loops having elongated openings, so as to be ready to be inserted between and secured to the outer part of the upper of a gaiter, boot, or shoe, and its lining.

It further consists in providing each of the lacing-edges of a gaiter, boot, or shoe thus made with a projecting strip of leather or other suitable material of a width sufficient to overlap each other when the shoe is laced, and thus act as a tongue to the shoe.

To enable others skilled in the art to make, construct, and use my invention, I will now proceed to describe its parts in detail, omitting a particular description of such parts of a gaiter or shoe as is unnecessary to give a full understanding of the improvement.

My improvement is illustrated in connection with a gaiter-boot.

In Figs. 8 and 9 are shown two kinds of loops, *a*, suitable for the purpose, the prerequisite in each being an elongated opening, *e*, as contradistinguished from a round opening. The length of the opening varies in each case, according to the width of the lace to be used.

In Fig. 9 loop *a* is shown as being made in one solid continuous piece, and in Fig. 8 as made out of a piece of wire bent into the requisite form, the ends being left unconnected. A small friction-roll, *w*, is also shown as being used in connection with loop *a* of Fig. 8; but such is not absolutely necessary, but it expedites both the lacing and unlacing of the shoe.

These loops *a* may be arranged and attached to the lacing-edges *b* of the gaiter or shoe in various ways. In Fig. 1 they are represented as being arranged directly opposite to each other in pairs, and in this position respectively secured in any known manner to lacing-edges *b* of the vamp or upper front *A* of the shoe.

In Fig. 7 a suitable way of securing the loop to the lacing-edge *b* is shown. For this pur-

pose each of the front edges *b* is slit at regular intervals apart, (see Fig. 6,) the interval being equal, or thereabout, to the inside length of opening *e* in the loops. Each of the tongues *d* thus formed is inserted into the opening *e* of loop *a* and then folded over, and when the whole are thus provided with loops they are sewed fast to the inner lining *f*. This is the process where the outer vamp *A* is sewed to the lining *f* by machine, for which purpose each tongue, if desired, may, when inserted through opening *e* of the loop and folded back, be temporarily held in place by paste, gum, cement, or other simple expedient; as, for instance, by running a basting-thread through each in turn as folded.

In Fig. 6 two modes of slitting the edges *b* of the vamp or lining are shown, as also the mode of applying the loops thereto; or, instead of securing them directly to the folded edge of the outer vamp and then to the lining, they may be secured in the reverse manner—that is to say, directly to the outer edge of the lining, and then sewed fast to the outer edge *b* of vamp *A*. Where, however, they are sewed in by hand, they are, or may be, inserted and secured one at a time.

Again, instead of being secured directly to the edges, either of the vamp or lining, they may first be temporarily secured in the same manner—that is to say, by cementing, basting, or sewing with long stitches—to a supplementary strip, *m*, of thin but strong leather or cloth, as represented in Fig. 10. Thus made, these supplementary strips *m* may be kept on hand ready to be inserted, as required, between the edges *b* of the vamp *A* and lining *f*, and then sewed fast thereto by hand or by machine.

The lacing-strips *m* thus provided with loops *a* may be made and put up in packages, and kept on hand for sale, ready to be applied to shoes, and for this purpose may be made of various sizes and shapes to suit the different sizes and shapes of gaiters, boots, or shoes required.

In Fig. 5 two other methods are shown of securing the loops *a* to the vamp. In the one case, as indicated at *M*, loops *a* are fastened by simply passing their ends through openings made in the lacing-edges *b* of the upper at suitable distances apart, and then stitching the lining and upper together by two seams, *s s*, one running along each side of the row of the loops. In the other case, as indicated at *N*, each loop *a* is secured by a separate strip, *t*, of leather, which is made to embrace it and the edge *b* of the outer upper, the upper and strip being then stitched together. The two pieces *M* and *N*, with their loops, also illustrate an angular mode of arranging the loops *a* with respect to each other, and which, in some respects, has its advantages.

If desired, a common lace or strip, *v*, of

leather or other suitable material, may be run from the inside of the lining out through and around the adjoining ends of the loops, so as to connect and cover them up, it, for this purpose, being passed out and around the ends, then back again to the inside; thence to the next two, out and around them; thence back again, and so on until all are covered. This gives a neat finish, and exposes less of the metal surface, which, to some, might prove objectionable. If desired, however, the loops may be japanned or lacquered, and thus render them less conspicuous. And they may also be provided with friction-rolls *w* to make them lace or unlace easier.

The laces used for this class of boots and shoes are preferably made of non-elastic and unstretching material, so as not to become narrowed by pulling in lacing. If made of leather or analogous material the leather should be first stretched in the line of their length before cutting, and should then be provided with a flat tag, *z*, to facilitate the lacing.

The laces, after the lacing operation is complete, may be secured in any suitable and known manner—as for example, by a buckle, *u*, as shown in Fig. 1, or by any of the various other kinds of buckles adapted to the purpose—as, for instance, those in which no tooth is used to penetrate the cloth, but simply a pivoted clamping-plate combined with the double loop of the buckle-frame.

By referring to Figs. 1 and 7 it will be seen that the lining *f* is shown as extended beyond both of the edges *b* of the vamp, and that sufficiently far to overlap each other when the edges *b* of the boot are drawn together. The projecting edges *e* of lining *f* thus made form not only a suitable but cheap tongue for the shoe; but any other known kind of suitable tongue may be used.

Fig. 1 illustrates the appearance of the shoe as laced with two strings, *g g*, while Figs. 2, 3, and 4 show different modes or lacing with a single lace, and illustrate their respective appearance when finished.

Having described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. The upper of a boot or shoe, having two exposed lacing-edges, said edges being provided with lacing-loops *a*, having elongated openings *e*, adapted to receive a flat lace, *g*, substantially in the manner and for the purpose specified.

2. A supplementary strip, *m*, provided with lacing-loops *a*, having elongated openings *e*, substantially as set forth.

3. The combination of a supplementary strip, *m*, provided with lacing-loops *a*, having an elongated opening, *e*, with the upper of a lace gaiter, boot, or shoe, substantially as set forth.

4. A gaiter provided on its front edge *b* with two rows of lacing-loops, *a*, having an elongated opening, *e*, and with a flat lace, *g*, or laces *g g'*, the loops *a* being so arranged with respect to each other that when laced up the lace will practically cover the openings of the shoe, substantially as shown and described.

5. A lace-gaiter, provided with at its lacing-edges *b* with two half tongues, *c c*, formed

by projecting the edges of lining *f* beyond the edges of the upper, substantially as set forth.

In testimony that I claim the foregoing as of my own invention, I affix my signature in presence of two witnesses.

PASCAL PLANT.

Witnesses:

P. HANNAY,

D. G. STUART.