G. W. Martin,

Shoe Heel,

No. 80,555, Patented Aug. 4, 1868.

Fig. 1.

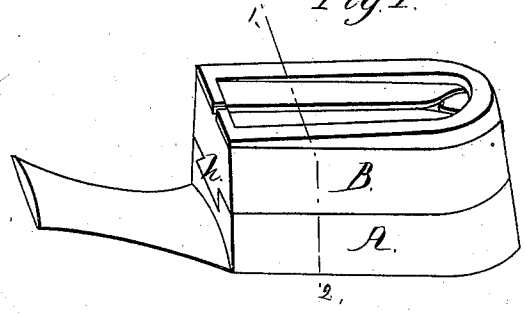


Fig. 3.

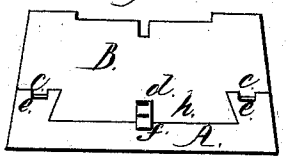
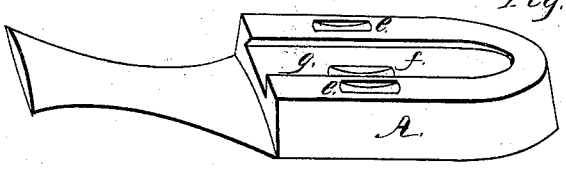


Fig. 2.



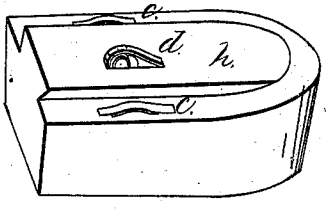


Fig. 4.

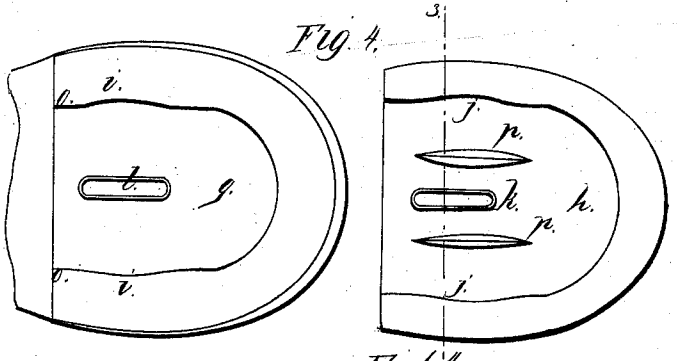


Fig. 5.

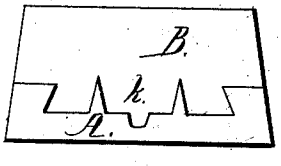


Fig. 6.

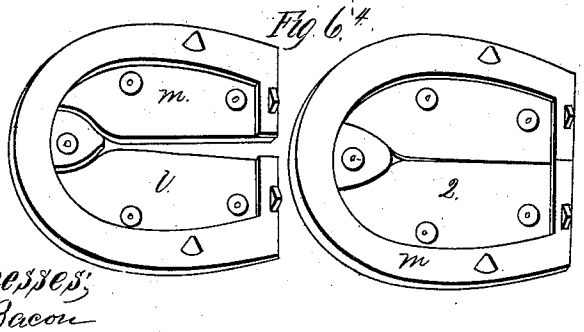
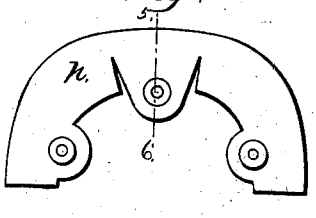


Fig. 7.



Witnesses;
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GEORGE W. MARTIN, OF BOSTON, MASSACHUSETTS.

Letters Patent No. 80,555, *dated August* 4, 1868.

IMPROVED BOOT AND SHOE AND CLOG FOR THE FEET.

The Schedule referred to in these Letters Patent and making part of the same.

TO WHOM IT MAY CONCERN:

Be it known that I, GEORGE W. MARTIN, of the city of Boston, in the county of Suffolk, and State of Massachusetts, have, as I believe, invented new and useful Improvements in Detachable Heels for Boots, Shoes, and Clogs for the Feet; and I do hereby declare the following to be a full and exact description of the same, reference being had to the drawings that accompany and form a part of these specifications, in which—

Figure 1 is a perspective view of the heel inverted.

Figure 2, the two parts of the heel detached, showing dove-tailed tongue-and-groove and metallic springs.

Figure 3, sectional view of heel, shown in fig. 1, cut on line 1–2.

Figure 4, plan of the two connecting faces of the two parts of a heel, with a modification of the method of holding them together.

Figure 5, sectional view on line 3–4, showing manner of connecting A B.

Figure 6, view of elastic adjustable heel-plates: 1, appearing in ordinary form; 2, as compressed for smaller heel.

Figure 7, another form of adjustable heel or sole-plate.

The object of my invention is to provide a heel for boots and shoes that may have its main wearing parts readily detached in order that new ones may be supplied and readily applied and adjusted; and also to allow the interchange of the two detachable parts of the two heels when the irregular wear of their surface may render such change advisable; and moreover to afford opportunity to persons purchasing to suit themselves as to the height of heel, as all of the same size would correspond, and detachable parts of various heights and widths could be with great readiness supplied and fitted.

The method of carrying my device into practice is as follows:

Letter A represents the base of a boot or shoe-heel, with a dove-tail groove, *g*.

Letter B, the top part of the heel, detachable, and supplied with tongue *h*, to correspond to and just fill the groove *g*.

Letters *c c*, two small metallic springs, placed in suitable recesses for them in the part B.

Letter *d*, another spring, similar, and in the tongue *h* on the part B.

Letters *e e*, recesses in A, into which the springs *c c* expand, and thus retain the part B in place.

Letter *f*, a recess in the groove *g* to receive the bow of the spring *d*.

In fig. 4 the springs *c c* are left off and the groove *g* widened slightly, as seen at *i i*, and the tongue *h* swelled at *j j* to correspond.

Letter *k*, an elastic projection on the tongue *h*.

Letter *l*, a depression in the groove *g* to receive the expansion of the projection *k*.

Letter *m* represents an elastic heel-plate, so constructed as to be compressible or expansible, as may be seen in fig. 6, to fit heels of various sizes.

Letter *n*, a style of adjustable plate that may be used upon the heel, on the toe, or other part of the sole.

In manufacture, the two parts A and B may be made of any suitable material, firm or elastic, or the base, A, may be of firm material, and the detachable part B of elastic material, thus, in addition to the qualities hereinbefore mentioned, securing an elastic heel.

The manner of sliding the two parts of the heel together may be readily understood from the drawings. The springs *c c* and *d*, made of metal or any other suitable material, closing into the recesses *e e* and *f*, act to retain the part B in place.

When the structure of the groove *g* and tongue *h* is that shown in fig. 4, the part B is made, either in whole or in part, of elastic material, so, when this part is being carried to its proper place in the heel, the swelled sides *j j* of the tongue *h* may be compressed so as to offer no objectionable obstruction to their passage between the jaws O O, and will, on the part B reaching its normal position, expand and fill closely the widened space at *i i*, and keep the part B firmly in place.

If thought necessary, the projection *k* may be used also, as this fitting into the recess *l* will aid in retaining the removable part of the heel, and may be a metal spring, or may be of elastic material, which would expand to fill the recess *l*.

With this arrangement of holding the parts together, the base, A, may be of firm or elastic material, or in part of both.

It may be said also of B, that the main portion can be of some suitable firm material, as leather or wood, and the sides of the tongue *h* at *j j* made of some elastic material, to provide for the compression and expansion, or the whole of the tongue *h* may be made of elastic material, and may have an additional means of contraction and expansion by being provided with the slots *p p*. These will allow a heel-piece, B, greater compression, and if at any time the tongue *h* should be found to move too easily in the groove *g*, these slots *p p* may be filled with any suitable material, so as to expand the tongue laterally throughout this portion of it, and thus cause the sides *j j* to bear with sufficient force against *i i*.

When the whole of the part B is made of elastic material, the slots *p p* may extend deep into the body thereof, as illustrated in fig. 5.

The adjustable heel and sole-pieces *m* and *n*, shown in figs. 6 and 7, may be of rubber or any elastic material, and attached in any suitable manner.

The contractible and expansible qualities of these plates provide for fitting readily with but few patterns, and almost endless variations in the contour of heels and soles.

One of these plates, *m*, may be seen in place on the heel in fig. 1.

I am aware that elastic heels have been made heretofore; I do not claim these broadly.

I know also that springs of various forms have been used in connection with detachable heel-pieces; the use of these broadly, I do not claim.

My springs are self-adjusting, requiring no touching of the hand or any other force, either when the part B is being put on or removed.

These springs retain the parts B in place, not only by having their swelled or bow parts drop into the recesses *e*, *e*, and *f*, but by causing the sides of the tongue and groove to press firmly upon each other, and thus occasion much friction.

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

1. Uniting the two parts, A and B, of a boot or shoe-heel by means of tongue and groove *h* and *g*, when provided with self-adjusting retaining-springs, *c c*, either with or without the spring *d*, for the purposes specified.

2. The tongue and groove *h* and *g*, when formed with the receding sides *i i*, and swelled sides *j j*, when constructed and attached, as described, either with or without the projection *k* and openings *p p*, as and for the purposes set fosth.

3. The elastic adjustable pieces *m* and *n*, in use either upon heel or sole of boot or shoe, as specified and set forth.

4. The tongue *h* and groove *g*, in application to the heel of a boot or shoe, substantially in the manner illustrated, and for the purposes described and set forth.

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

GEO. W. MARTIN.

Witnesses:

D. C. COLBY,

A. M. BACON.