

No. 653,161.

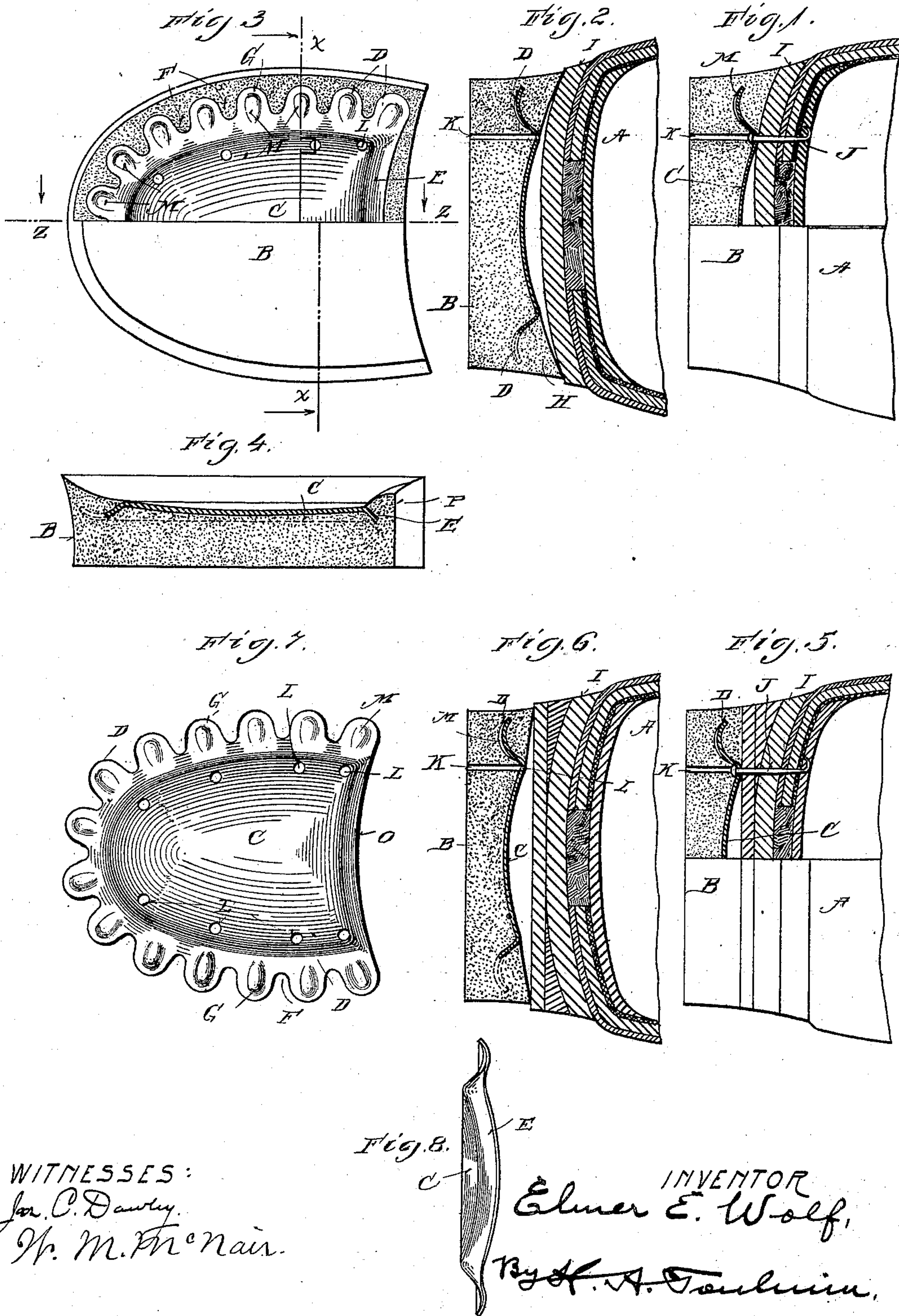
Patented July 3, 1900.

E. E. WOLF.

ELASTIC TREAD FOR BOOTS OR SHOES.

(Application filed Feb. 23, 1900.)

(No Model.)



WITNESSES:
Jas. C. Dawley.
W. M. McNair.

INVENTOR
Elmer E. Wolf,

By *A. T. Sullivan*

ATTORNEY.

UNITED STATES PATENT OFFICE.

ELMER E. WOLF, OF SPRINGFIELD, OHIO, ASSIGNOR, BY DIRECT AND MESNE ASSIGNMENTS, TO THE SPRINGFIELD ELASTIC TREAD COMPANY, OF OHIO.

ELASTIC TREAD FOR BOOTS OR SHOES.

SPECIFICATION forming part of Letters Patent No. 653,161, dated July 3, 1900.

Application filed February 23, 1900. Serial No. 6,256. (No model.)

To all whom it may concern:

Be it known that I, ELMER E. WOLF, a citizen of the United States, residing at Springfield, in the county of Clark and State of Ohio, have invented certain new and useful Improvements in Elastic Treads for Boots or Shoes, of which the following is a specification, reference being had therein to the accompanying drawings.

10 This invention relates to certain new and useful improvements in elastic treads for boots and shoes.

The general object of my invention is to provide a holding-plate which shall so act upon an elastic body that such elastic body will be held firmly against the boot or shoe to which it is attached and along the exposed edges to prevent the accumulation of gravel and soil between the boot or shoe and such elastic body.

Another object of my invention is to prevent sidewise elongation of the elastic body after once being applied.

Still another object of my invention is to construct the holding-plate in such a manner that the elastic body may be secured to a boot or shoe without the necessity of first leveling up the surface to which the elastic body is to be applied.

30 My invention also relates to details of construction and arrangement hereinafter appearing and particularly pointed out in the claims.

In the accompanying drawings, on which like reference-letters indicate corresponding parts, Figure 1 represents a detail view, partly in section, of a boot or shoe with my improvement applied to the heel thereof and also showing the manner of attaching the same; Fig. 2, a sectional view on the line x of Fig. 3 looking in the direction of the arrows, but before the elastic body has been secured thereto; Fig. 3, an inverted plan view of an elastic heel, partly in section, to more fully illustrate the manner in which the holding-plate is embedded therein; Fig. 4, a longitudinal sectional view on the line $z z$ of Fig. 3; Fig. 5, a similar view to Fig. 1, but showing what is termed a "half-heel" embodying my improvements and applied to a

boot or shoe; Fig. 6, a similar view to Fig. 2, but showing a half-heel instead of a full heel; Fig. 7, an inverted plan view of my improved holding-plate, and Fig. 8 a front edge view.

The letter A represents the rear end of a boot or shoe with my invention applied thereto, as indicated by the letter B. It will be observed from Figs. 1 to 6, inclusive, that I have provided a holding-plate which is curved in cross-section, as shown in the drawings, with its outer edges turned down to form hook-like extensions D. The main body of the plate rests upon the elastic body B, while the turned-down portions or sides D are embedded in the rubber. It will be observed that the forward edge of the plate is also turned down, as indicated at E in Fig. 4 and also in full lines in Fig. 8. The outline of the holding-plate C is similar to that of an ordinary heel, as clearly indicated in Figs. 3 and 7, so that in this instance it can be embedded in a heel. Of course it will be understood that such plate may be any other shape to correspond with the sole of a shoe, if desired, the mechanical features involved being the same whether used for a heel or a sole. In the inverted plan views it will be seen that the outer edges of the holding-plate are scalloped, as shown at F, so as to form hooks G. This construction carries the holding feature closer to the outer edges of the elastic body, yet at the same time permits such elastic body to fill in between them, thereby more firmly anchoring the portion of the elastic body H which extends over the hooks G in the turned-down sides D, so that the elastic material is not so likely to be torn from the holding-plate when the holding-plate is secured in position in the manner shortly to appear.

From Figs. 3 and 7 particularly it will be observed that there are a number of holes arranged at intervals around the holding-plate at or near the turned-down sides. By the construction of holding-plate here illustrated when the plate is brought against the boot or shoe it fits snugly against such shoe in a manner similar to a horseshoe on a horse's hoof—that is, has a bearing near the outer edges of the portion of the boot or shoe to which the

elastic body is to be applied. Between the turned-down edges of the holding-plate and the forward downturned edge is formed a pocket, so that as pressure is applied to the bottom of the heel it presses into this pocket and does not act to elongate sidewise or endwise, particularly along the upper face of the heel, so that there is no movement between the elastic body and the shoe when such body is applied.

Let us suppose that an elastic heel is to be applied to a boot or shoe. A heel of the proper size is found, which is preferably slightly less in width than the body portion I, against which the elastic body is to fit. The heel is placed in position, and nails, such as shown at J, are inserted through holes or openings K in the elastic body and also through one of the holes L in the holding-plate and through the body portion of the heel, where they are clenched in position in a manner well known in the art of shoemaking. This will cause the holding-plate to be drawn snugly against the body portion I, as shown in Figs. 1 and 5, such movement also causing the elastic body B to expand somewhat and at the same time be somewhat compressed along its outer edges, so that the elastic body fits snugly against the body portion I under considerable pressure and at the same time is out substantially even with the outer edges of such body portion. Should, however, the plate when it is tacked to the boot or shoe cause the elastic body to project slightly beyond the body portion I, it is buffed off in any suitable manner. (Not shown.) Should it be found that after the plate C is drawn snugly against the shoe the elastic body is not quite out as far as the outer edge of the body portion I, then such body portion can be trimmed down to correspond with the elastic body. In forming the elastic heels suitable openings in the elastic body, as shown at K, are molded therein opposite the holes E in the plate C, so that a nail may be readily slipped through such holes or openings and be driven into the shoe or boot.

By curving the main portion of the holding-plate away from the shoe proper both in a horizontal direction and in a longitudinal direction, the former as illustrated in Figs. 1, 2, 5, and 6 and the latter as shown in Fig. 4, a very stiff holding-plate is provided and one which will not yield or bend when heavy weight is applied thereto. This peculiar formation also permits the elastic body and holding-plate to fit snugly to a boot or shoe without the necessity of leveling up such boot or shoe to make a perfectly-smooth surface against which the attachment may fit.

Thus with my invention it will be understood that the holding-plate not only prevents the elastic body from crowding and pushing out laterally and longitudinally, but it also acts to prevent the outer edges of the elastic body from being raised out of contact with the body portion of the boot, so that grit and

dirt are prevented from working in between the elastic body and the body portion of the boot or shoe, thus preventing the elastic body from being forced out of position.

Referring again to the hooks G, it will be seen that they are slightly cupped out, as indicated at M in the drawings. It will also be understood that the plate C is embedded in rubber or other elastic material when the rubber is molded, and consequently when the rubber is vulcanized such rubber becomes firmly vulcanized to the metal. It will be observed that the forward edge of the plate, as shown at O, is turned down and outward, thus assisting in forcing the forward edge of the rubber P into close contact along such edge with the boot or shoe to which the heel is being applied.

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

1. In an attachment for boots and shoes, the combination with an elastic body, of a holding-plate substantially embedded within said body and having a bearing against the under side of a boot or shoe, the outer edges of said plate being turned downward and outward and upward to form hook-like extensions, said hook-like extensions acting to compress the outer edges of said elastic body, and holding means for connecting said holding-plate with the boot or shoe, all substantially as shown and described.

2. In an elastic attachment for boots and shoes, the combination with an elastic body having its upper face dished, of a holding-plate conforming to the shape of said dished upper face and having its outer edges turned downward and outward, and forming hook-like extensions and also having holes therein, and means for engaging with said plate and with a boot or shoe to hold said elastic body in position, all substantially as shown and described.

3. In an elastic attachment for boots and shoes, the combination with an elastic body having its upper face dished in cross-section and also longitudinally, of a holding-plate adapted to fit upon said elastic body in said dished face, said plate having its outer edges turned downward and outward, and also having holes therein, and means to project through said holding-plate and engage therewith and extend into said shoe or boot to secure said plate and resilient or elastic body in place, all substantially as shown and described.

4. In an elastic attachment for boots and shoes, the combination with an elastic body, of a holding-plate having its outer edges turned downward and outward, such outer edges being scalloped to form hook-like extensions, such hook-like extensions being cupped out, said turned-down portions extending within the body portion of said elastic body, all substantially as shown and described.

5. As an article of manufacture, a holding-

plate having its outer edges bent downward and outward and scalloped to form hook-like extensions, such hook-like extensions being cup-shaped, said plate being turned down 5 and outward along its outer edge and also curved downward in cross-section and longitudinally and also having holes or openings near its outer edges adjacent to said turned-down portions, all substantially as shown and 10 described.

6. In an elastic attachment for boots and shoes, the combination with an elastic body, of a holding-plate having its outer edges turned downward and outward, such outer 15 edges being scalloped and forming hook-like extensions, said turned-down portions extending within the body portion of said elastic body, all substantially as shown and described.

20 7. In an elastic attachment for boots and

shoes, the combination with an elastic body, of a holding-plate having a bearing substantially in the shape of a horseshoe for fitting against the base of a shoe-heel, holes formed in said bearing through which fastening de- 25 vices may be driven into the base of said heel, said plate having turned-down portions outside of said bearing, such turned-down portions also extending outward and being formed after the fashion of a hook opening 30 upward, whereby the rubber heel will be compressed along its upper edges and will be held from lateral spreading, all substantially as shown and described.

In testimony whereof I affix my signature 35 in presence of two witnesses.

ELMER E. WOLF.

Witnesses:

B. B. ESTERLINE,
W. M. MCNAIR.