

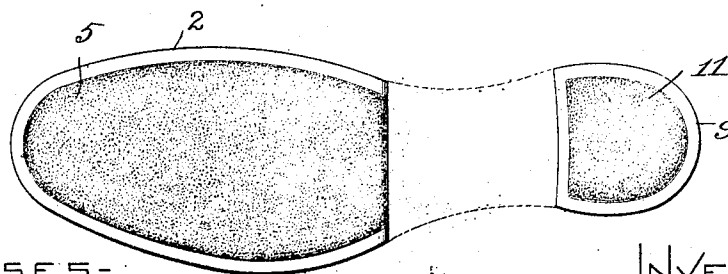
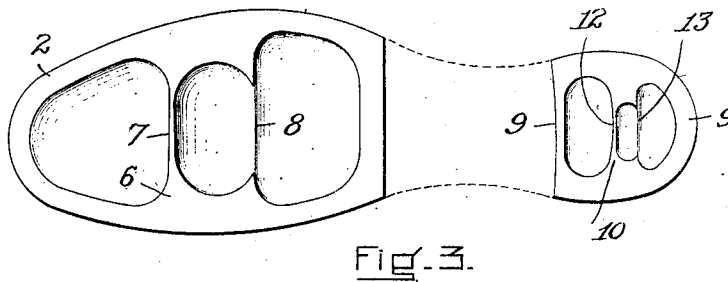
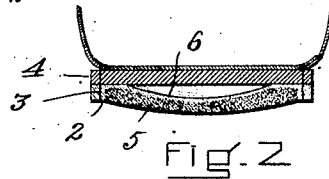
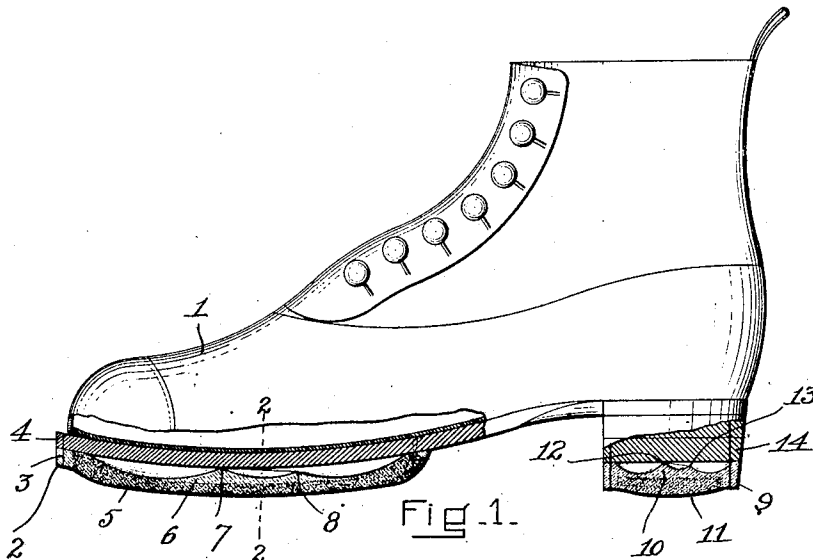
No. 836,364.

PATENTED NOV. 20, 1906.

N. J. BUSBY.

DETACHABLE TREAD FOR BOOTS AND SHOES.

APPLICATION FILED FEB. 5, 1906.



WITNESSES:

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FIG. 4:

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UNITED STATES PATENT OFFICE.

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DETACHABLE TREAD FOR BOOTS AND SHOES.

No. 836,364.

Specification of Letters Patent.

Patented Nov. 20, 1906:

Application filed February 5, 1906. Serial No. 299,622.

To all whom it may concern:

Be it known that I, NAHUM JUDSON BUSBY, a citizen of the United States, residing at Boston, in the county of Suffolk, State of Massachusetts, have invented new and useful Improvements in Detachable Treads for Boots and Shoes, of which the following is a specification.

My invention relates to detachable treads for the soles and heels for boots and shoes, and has for its object to provide an improved construction of the same wherein an antislipping tread-surface will be presented that will be otherwise yielding when in use, said yielding or resilient result being produced by means other than the inherent resilient quality possessed by the character of the articles themselves. This object I accomplish in the manner and by the means hereinafter described and claimed, reference being had to the accompanying drawings, in which—

Figure 1 is a side elevation of a shoe, showing my improved detachable sole and heel applied thereto, the same being shown partly in section. Fig. 2 is a transverse sectional view of the sole portion, taken on the line 2 2, Fig. 1. Fig. 3 is a plan view of the inner surface of said detachable sole and heel. Fig. 4 is a plan view of the outer surface of the same.

Similar numerals of reference denote corresponding parts in the several views.

In the said drawings the reference-numeral 1 denotes the shoe proper having attached thereto my improved sole and heel. Referring more particularly to the sole, the same consists of an inclosing outer rim or wall 2 of solid rubber or other suitable material adapted to receive suitable means 3 for attaching it to the sole 4 of the shoe, said attaching means consisting of nails or sewing-thread, as may be desired. Located within and filling the space within said rim or wall 2 is a tread-surface 5, formed of a mixture of flexible rubber or cement and a gritty substance, the same being oval or cup-shaped, as shown, to provide a projecting tread-surface and to leave an intervening space between it and the shoe-sole 4. Located in this space centrally and transversely of the sole is a bridge 6, formed of clear rubber and cemented or otherwise attached to the inner surface of said tread-surface. This bridge 6 is formed with two transverse raised portions 7 and 8, forming an intervening saucer-shaped space, and has quite

a broad area of contact with the tread 5, that gradually merges into narrow lines of contact with the boot or shoe sole 4, as best shown in Fig. 1. The raised portion 7 is adapted to normally contact with the shoe-sole 4, while the raised portion 8 lies normally a slight distance away from contact therewith, the whole forming a series of three distinct chambers between the shoe-sole 4 and tread-surface 5, as shown. In respect to the heel-tread the construction is substantially the same, except that the inclosing rim or wall 9 and bridge 10 extend over the entire inner surface of the detachable heel, the combined elastic cement and grit surface 11 being located in a recess formed in the outer surface of said intermediate part, as shown.

In use the gritty or antislipping treads 5 and 11 receive the whole wear, the bridges 6 and 10 forming not only a reinforce for said treads, but also acting to additionally cushion the tread, the points of constant contact 7 and 12 resisting the weight initially and upon yielding being supplemented by the points of contact 8 and 13, which are then brought in contact with the shoe-sole 4 and heel 14, respectively. Furthermore, by reason of the broad areas of contact of said bridges 6 and 10 with their treads 5 and 11, which gradually merge into narrow lines of contact with the boot or shoe sole and heel, said bridges offer a constantly-increasing resistance in proportion to the weight imposed thereon, the area of contact of the transverse projections 7, 8, 12, and 13 increasing longitudinally of the boot or shoe in proportion to the weight of the wearer, thereby adapting the same treads to use by persons of widely-varying weights.

By my improved construction I provide not only a reliable antislipping tread, but also an improved yielding detachable sole and heel having means for positively and resiliently resisting the weight.

It will be understood that the treads 5 and 11 are permanently united to their respective outer rims or walls 3 and 9 and bridges 6 and 10 in the process of manufacture, the same each constituting when made a single practically homogeneous article, the bridges 7 and 10 effectually resisting any tendency that the combined grit and cement tread-surface 5 and 11 may have to crack or break under the weight of the wearer.

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

1. A detachable tread for boots and shoes, embodying a tread-surface, an exterior rim or wall of flexible material, and an intermediate transverse bridge of flexible material having a broad area of contact with the tread and gradually merging into a narrow line of contact with the boot or shoe sole, said bridge forming a plurality of chambers between said tread and the boot or shoe sole.

2. A detachable tread for boots and shoes, embodying a tread-surface of elastic cement and grit, an exterior rim or wall of flexible material, and an intermediate transverse bridge of flexible material having a broad area of contact with the tread and gradually merging into a narrow line of contact with the boot or shoe sole, said bridge forming a plurality of chambers between said tread and the boot or shoe sole.

3. A detachable tread for boots and shoes, embodying a tread-surface of elastic cement and grit, an exterior rim or wall of flexible material, and an intermediate bridge of flexible material having a plurality of transverse contact-surfaces of different elevations form-

ing a plurality of chambers between said tread and the boot or shoe sole or heel, whereby said contact-surfaces are adapted to successively contact with said boot or shoe sole or heel under the weight of the wearer.

4. A detachable tread for boots and shoes, embodying an exterior rim or wall of flexible material, a tread-surface of elastic cement and grit located within said rim or wall and formed of oval or cup shape to leave an intervening space between the same and the boot or shoe sole or heel, and an intermediate bridge of flexible material located in said space and having a plurality of transverse contact-surfaces forming a plurality of chambers between said tread-surface and the boot or shoe sole or heel, said bridge having a broad area of contact with the tread and gradually merging into narrow lines of contact with the boot or shoe sole.

In testimony whereof I have hereunto set my hand in the presence of two subscribing witnesses.

NAHUM JUDSON BUSBY.

Witnesses:

E. A. G. BUSBY,

NAHUM J. BUSBY, Jr.