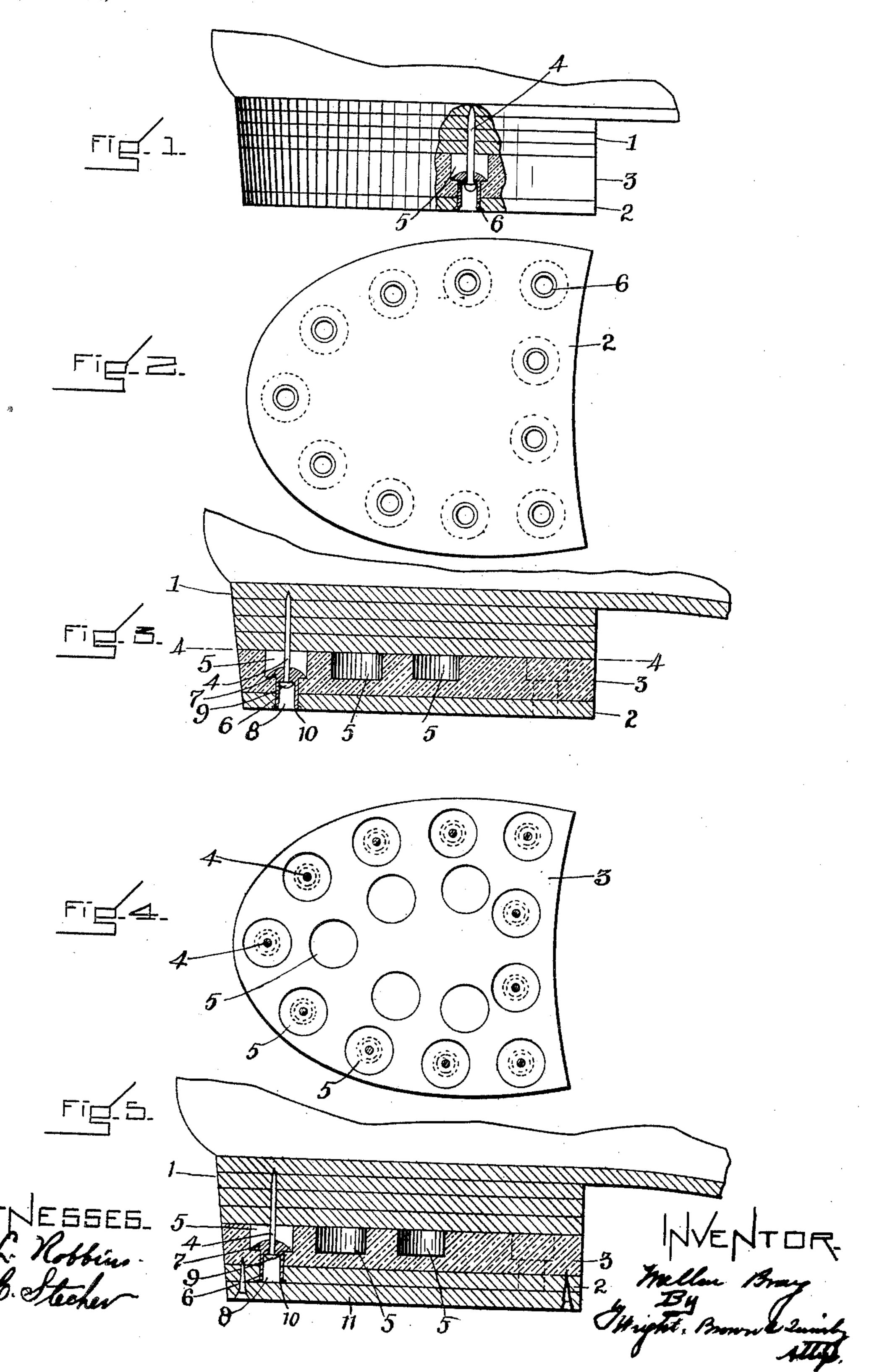
## M. BRAY.

## CUSHION TREAD FOR BOOTS OR SHOES.

(Application filed Dec. 5, 1900.)

(No Model.)



## United States Patent Office.

MELLEN BRAY, OF NEWTON, MASSACHUSETTS.

## CUSHION-TREAD FOR BOOTS OR SHOES.

SPECIFICATION forming part of Letters Patent No. 675,619, dated June 4, 1901.

Application filed December 5, 1900. Serial No. 38,769. (No model.)

To all whom it may concern:

Be it known that I, Mellen Bray, of Newton, in the county of Middlesex and State of Massachusetts, have invented certain new and useful Improvements in Cushion-Treads for Boots or Shoes, of which the following is a specification.

This invention relates to cushion-treads for boots and shoes; and it consists in certain novel features of construction and arrangement, which I shall now proceed to describe

and claim.

represents a side elevation, partly broken away and in section, showing a heel provided with a cushion-tread embodying my invention. Fig. 2 represents a reverse plan view thereof. Fig. 3 represents a longitudinal vertical section. Fig. 4 represents a section on line 4 4 of Fig. 3. Fig. 5 represents a section showing a modification or addition to the structure illustrated in the preceding figures.

The same reference characters indicate the

same parts in all the figures.

The invention as herein shown is embodied in a cushion-heel and is further illustrated as in part an attachment for boots and shoes already in use; but the invention is not limited in its application to the heel part of the boot or shoe, nor need it or its parts necessarily be furnished in the form of an attachment.

In the drawings, 1 represents a part or the whole of a heel of a boot or shoe, the same

35 constituting an upper base part.

2 represents an incompressible tread layer, which may be composed of leather, and 3 represents an interposed compressible cushion layer, which may be composed of soft 40 rubber. The tread layer 2 and cushion layer 3 together may be supplied as an attachment for boots and shoes already in use, said attachment being secured to the base part 1 of the heel by means of nails 4 or other suit-45 able attaching devices. The cushion layer 3 is shown as formed with a plurality of recesses or pockets 5 5 on its upper side, which increase the resilience or compressibility of the layer 3, as well as decreasing its weight and 50 the amount of stock required to make it. The cushion layer 3 is attached to the tread layer

2 by means of a series of rivets 6 6, distributed around the edges of the layers and having heads 7, which occupy the pockets 5 around said edges, said rivets being tubular 55 in form and their lower portions constituting elongated enlarged sockets 8, which receive the heads 9 of the nails 4. The lower ends of the rivets have their edges turned over, as shown at 10, to engage the tread layer 2. 60 The upper ends of the rivets are formed with apertures slightly larger than the shanks of the nails 4, through which apertures said nails project into the lower or socket portions 8 of the rivets, the heads 9 of the nails being 65 adapted to abut against the upper ends of the sockets 8 to limit the downward movement of the tread layer 2 with respect to the base part 1. The rivets 6 thus have a sliding engagement with the nails 4, and when 70 the cushion layer 3 is compressed by the movement of the base 1 toward the tread layer 2 the rivets move up and are guided on the shanks of the nails. The rivets and nails therefore form a sliding guide connec- 75 tion between the tread layer and the base part, which prevents undue lateral movement of the tread layer with respect to the base part, the heads 9 and the rivets preventing undue downward movement, as stated. 80

The heel, as illustrated in Figs. 1 to 4, is an operative and complete device, with a single thickness or lift 2 in the tread layer. In practice, however, I prefer to nail or otherwise apply to the single lift or thickness 2 85 after the cushion-tread is on the shoe an additional top lift 11, Fig. 5, preferably of leather, to protect the ends of the rivets and cover up the sockets 8. The lifts 2 and 11 then constitute what I herein term the 90

"tread layer."

I claim—

1. A tread for boots and shoes, comprising an upper base part, a lower incompressible tread part, an interposed compressible cushion part, a fastening member securing the cushion and tread parts together, and a stem on the base part engaged with said fastening member.

2. A tread for boots and shoes, comprising 100 an upper base part, a lower incompressible tread part, an interposed compressible cush-

ion part, a fastening member securing the cushion and tread parts together, and a stem on the base part having a sliding engagement

with said fastening member.

5 3. A tread for boots and shoes, comprising an upper base part, a lower incompressible tread part, an interposed compressible cushion part, a fastening member securing the cushion and tread parts together, and a stem on the base part having a head coacting with said fastening member to retain the cushion and tread members in connection with the base part.

4. A tread for boots and shoes, comprising

15 an upper base part, a lower incompressible tread part, an interposed compressible cushion part, tubular rivets securing the cushion and tread parts together, and stems projecting from the base part into said rivets and 20 having heads adapted to engage the rivets

and secure the cushion and tread parts to the

base part.

5. A cushion tread attachment for boots and shoes, comprising a compressible cushion layer, an incompressible tread layer, and a 25 series of tubular rivets securing said layers together, and having abutments for the heads of the headed attaching members by which the attachment is secured to the boot or shoe, said attachment having elongated enlarged 30 sockets on the side of said abutments toward the tread-surface of the tread layer for the reception of said heads.

In testimony whereof I have affixed my sig-

nature in presence of two witnesses.

MELLEN BRAY.

Witnesses:

FRED A. POPE, M. E. CROCKER.