

R. L. CAMPBELL.
 FOOTWEAR.
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1,363,640.

Patented Dec. 28, 1920.

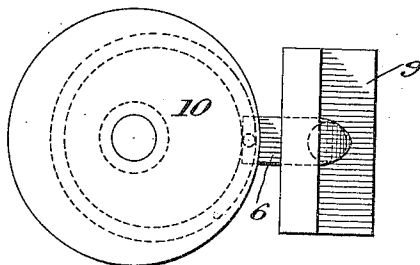
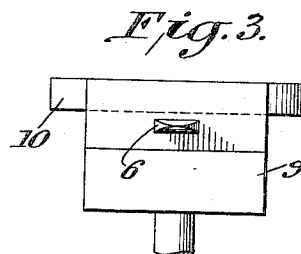
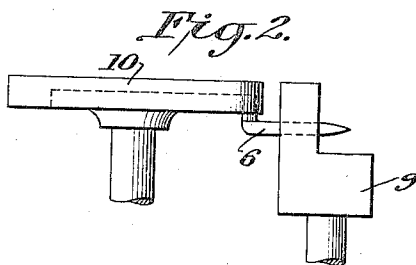
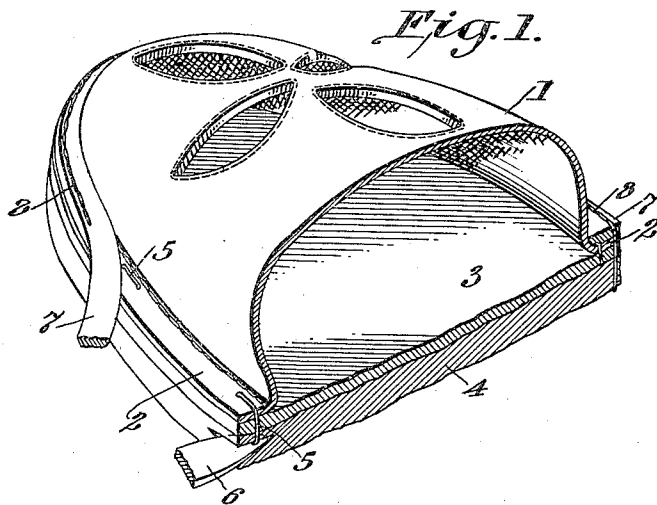


Fig. 4.

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To all whom it may concern:

Be it known that I, ROBERT L. CAMPBELL, a citizen of the United States, residing at Hagerstown, in the county of Washington and State of Maryland, have invented certain new and useful Improvements in Footwear, of which the following is a full, clear, and exact description.

The object of the invention is to improve the manufacture of that type of footwear in which staples are used to secure the upper and the sole together. Hitherto it has been customary to clench the staples on the outside of the sole, but this results in an unsightly finish, and when the clenched points are worn off, which soon occurs, the security of the fastening is impaired.

In the present invention the staples or other metallic fastenings are clenched in the interior of the outer sole and so concealed and protected against wear until the sole itself is practically worn out. To accomplish this the sole is pierced laterally from its outer edge about midway of its thickness and the piercing agent is utilized as an anvil against which the points of the staple are clenched and thereby concealed within instead of in or upon the outer exposed surface of the sole, as I will proceed now to explain and finally claim.

In the accompanying drawings illustrating the invention, in the several figures of which like parts are similarly designated, Figure 1 is a perspective view and cross section of the toe portion of a shoe. Fig. 2 is a diagrammatic side elevation illustrating one means for carrying out the invention, and Figs. 3 and 4 are respectively an end elevation and a top plan view of such mechanism.

In illustration of the invention, I have shown a portion of a sandal, but of course the invention is not limited to any particular type or style of footwear.

Referring to the illustration, 1 designates the upper having its edge 2 turned out and connected with the inner sole 3 in any suitable way for handling, and 4 is the outer sole. These three parts, namely, the upper, inner sole and outer sole, are connected by means of staples 5 or other metallic fastenings, driven through the out-turned edge of the upper and inner sole and clenched within the body or substance of the outer sole, instead of being driven entirely through the outer sole and clenched on the outside there-

of. In order to effect this interior clenching of the staples, I use a cutting tool 6 which, as shown in Fig. 1, is driven into the edge of the outer sole about midway of its thickness to make an incision in the sole, and this cutting tool is thereafter used as an anvil against which the points of the staple are upset or clenched, so that these upset or clenched points are concealed within the interior of the outer sole and thus protected from wear until the sole is practically worn out. Not only is this concealment effected by this construction, but a shoe is produced of very much more sightly appearance than were the points of the staples clenched on the outside of the sole.

After the staples are in place, a welt 7 may be laid over the out-turned edge 2 of the upper and secured by stitches 8, or otherwise, and these stitches or other fastenings may extend through the welt, the out-turned edge 2, the inner sole and the outer sole, so that when the shoe is finished it has the appearance of a sewed shoe.

The cutting tool 6 may be of any suitable construction and operated in any suitable way, but I have shown in Figs. 2, 3 and 4 the essential parts of the machine for this purpose. As thus shown, the cutting tool 6 may be mounted in a rest 9 for supporting the shoe while being operated upon, and this tool may be connected with a rotary cam 10 by which a reciprocating motion is imparted to the tool. As the shoe is presented step by step for the reception of the staples 5, the cutting tool is driven into the edge of the sole as indicated in Fig. 1, and its reciprocation arrested until the staple driving mechanism (not shown but of any approved kind) operates to drive the staple, so that its points will strike the cutting tool and be clenched thereon, and then the cutting tool is withdrawn from the incision made and the shoe moved to a new position to receive another incision and staple, as previously described.

The incision made is small and is effectively closed by the application of the welt, or in any other suitable way.

As already pointed out, by the construction described the clenched points of the staple are concealed in the interior of the outer sole.

While the invention is shown and described as applied to the use of staples, of course, it is to be understood that other fas-

tenings may be used and their points clenched in the same way.

Variations in details of construction are permissible within the principle of the invention and the claims following.

What I claim is:—

1. An article of footwear, having an upper and an outer sole, said sole having a series of independent lateral incisions equal in number to the number of the next mentioned fastenings, and metallic fastenings inserted in the upper and engaging the outer sole and having their points clenched and concealed within the interior of the outer sole next to said incisions.

2. An article of footwear, having an upper provided with an out-turned edge, an outer sole provided with a series of independent lateral incisions, and metallic fastenings applied to the out-turned edge of

the upper and having their points clenched and concealed in the lateral incisions made in the outer sole.

3. The improvement in the art of making footwear, which consists in assembling an upper and an outer sole and providing independent lateral incisions at intervals in the outer sole made therein through the edge of the outer sole as the work progresses, and applying metallic fastenings to the edge of the upper successively with the formation of the incisions and clenching the points of such fastenings upon the tool used for making said incisions and then withdrawing the tool.

In testimony whereof I have hereunto set my hand this 24th day of November A. D. 1919.

ROBERT L. CAMPBELL.