

A. D. NEARON.
COMPOSITE BOOT AND SHOE SOLE.
APPLICATION FILED JULY 21, 1919.

1,392,201.

Patented Sept. 27, 1921.

Fig. 1.

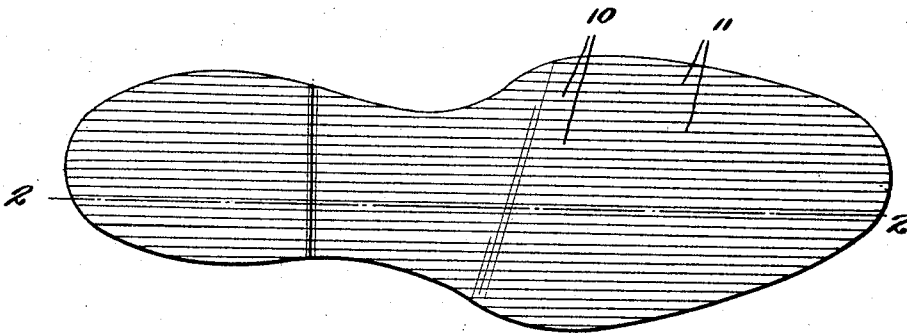
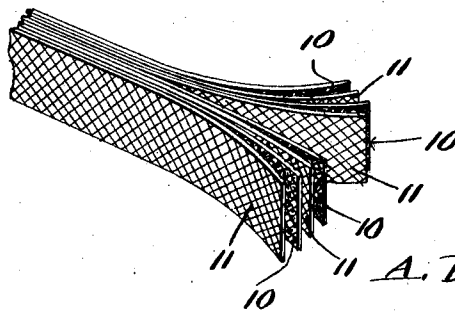


Fig. 2.



Fig. 3.



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34

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1,392,201.

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To all whom it may concern:

Be it known that I, ARLE DANA NEARON, a citizen of the United States, residing at Muncie, in the county of Delaware and State of Indiana, have invented certain new and useful Improvements in Composite Boot and Shoe Soles, of which the following is a specification.

This invention relates to improvements in composite soles for boots and shoes formed of coacting layers of yieldable material such as rubber or the like and fabric material such as canvas or the like, and has for one of its objects to so arrange the layers that the maximum of resistance is presented to wear and strain and to cause the layers to mutually support each other lengthwise of the sole.

With these and other objects in view the invention consists of certain novel features of construction as herein shown and described and then specifically pointed out in the claim, and in the drawings illustrative of the preferred embodiment of the invention—

Figure 1 is a plan view of one of the improved soles.

Fig. 2 is a longitudinal section on the line 2—2 of Fig. 1.

Fig. 3 is an enlarged perspective view of a portion of the sole illustrating its construction more fully.

The major portions of the strains to which the soles of boots or shoes are subjected is in a direction longitudinally of the sole; produced for instance by the forward thrust of the foot in walking. To provide a boot and shoe sole with the elements so arranged and combined as to offer the greatest degree of resistance to this longitudinal thrust is the principal object of the present invention, which consists in constructing the sole of alternating strips of a yieldable material such as rubber and fabric material such as canvas disposed vertically face to face and extending longitudinally of the sole.

By this means each individual layer is exposed at its lower edge for its full length to the ground or floor upon which the wearer of the boot or shoe is walking, while the up-

per edge of each layer is exposed to the pressure of the foot both downwardly and forwardly in the act of walking.

To illustrate the embodiment of the invention the drawings disclose a plurality of strips 10 of rubber or like material and strips 11 of a suitable fabric such as canvas or the like. The strips are arranged face to face, as shown, and extend longitudinally of the sole as shown in Fig. 1. The strips are united by vulcanizing and then cut to their required shape to form a sole.

A layer of fabric, represented at 12, is disposed over the upper edges of the united rubber strips 10 and the dividing fabric strips 11, to prevent the composite sole structure from turning up at the toe.

By this arrangement it will be noted that the lower edges of each strip or layer of material is fully exposed, the lower edges bearing on the ground or floor upon which the wearer of the boot or shoe is walking and the upper edges subjected uniformly to the pressure of the foot of the wearer. It will also be noted that the forward thrust of the foot is borne by the strips along their major axes or longitudinally thereof and in the direction of their greatest resisting power.

The strains transversely of the strips are negligible, hence there will be little or no tendency to separate the strips.

The improved device is simple in construction, and can be inexpensively manufactured, as the rubber strips can be cut from otherwise waste or discarded material such as worn out automobile tires or the like, and will outwear the other portions of the shoe and is cheaper than the ordinary leather sole.

Having thus described the invention what is claimed as new is:

A composite sole for shoes composed of longitudinally disposed alternating strips of rubber and textile material, the strips being united by vulcanizing and set on edge and continuous from end to end and extending from edge to edge of the sole.

In testimony whereof I affix my signature hereto.

ARLE D. NEARON.