No. 672,724. Patented Apr. 23, 1901.

A. F. VOGT.

RUBBER BOOT OR SHOE SOLE.

(Application filed Jan. 31, 1901.)

(No Model.)

Fig. 1.

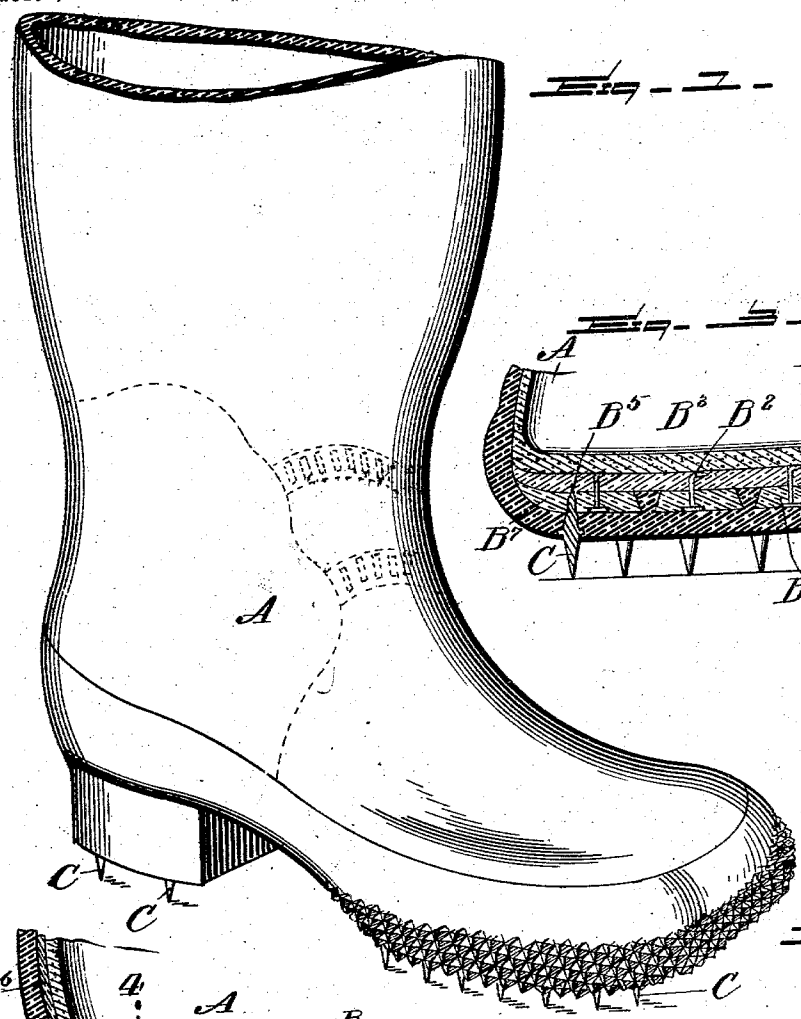


Fig. 3.

Fig. 2.

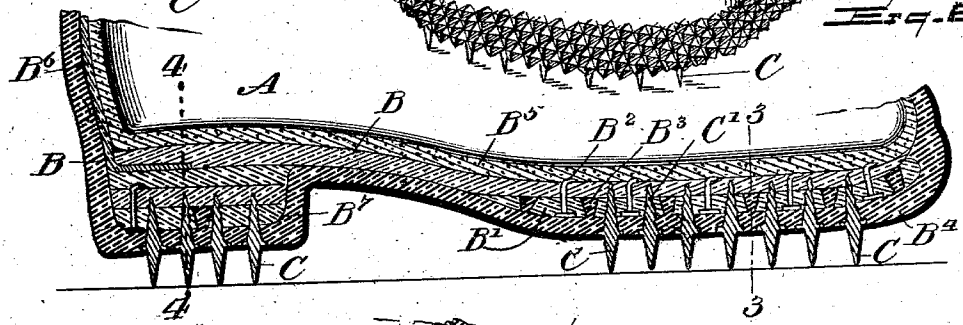
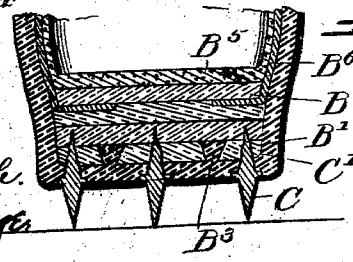


Fig. 4.



Witnesses
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UNITED STATES PATENT OFFICE.

AUGUSTUS F. VOGT, OF EMPORIUM, PENNSYLVANIA.

RUBBER BOOT OR SHOE SOLE.

SPECIFICATION forming part of Letters Patent No. 672,724, dated April 23, 1901.

Application filed January 31, 1901. Serial No. 45,494. (No model.)

To all whom it may concern:

Be it known that I, AUGUSTUS F. VOGT, a citizen of the United States, residing at Emporium, in the county of Cameron, State of Pennsylvania, have invented certain new and useful Improvements in Rubber Boot or Shoe Soles, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to rubber boots or shoes, and particularly to a sole therefor to which a calk can be securely fastened.

In lumbering districts and other localities the use of a rubber boot or shoe has been found necessary, and the principal objection thereto has been that the metallic calks used to prevent slipping upon logs, wet lumber, or any other dangerous places could not be securely fastened to the rubber to prevent the twisting or tearing out of the calk, which rendered the boot or shoe practically useless and left an opening for the entrance of water into the same.

The object of the present invention is to overcome this difficulty by providing an inner sole to which the rubber outer sole may be firmly secured and into which the metallic calk passing through the rubber enters, thereby obtaining a firm hold to prevent the tearing out of the calk in the use of the boot or shoe.

Other objects and advantages of the invention will hereinafter appear in the following description, and the novel features thereof will be particularly pointed out in the appended claims.

In the drawings, Figure 1 is a perspective of a boot having my invention applied thereto. Fig. 2 is a longitudinal section thereof. Fig. 3 is a cross-section on the line 3 3 of Fig. 2, and Fig. 4 is a similar view on the line 4 4 of Fig. 2.

Like letters of reference indicate like parts throughout the several figures of the drawings.

The letter A designates the body of the foot-covering, which may be of any desired shape or material—for instance, a boot, as shown by full lines in Fig. 1, or a rubber shoe, as indicated by dotted lines in said figure.

For the purpose of constructing my improved sole I use a leather sole B, which may be in one or more pieces and to one face of which is applied a securing-sole B′, of leather or other suitable material, secured to the insole B by any desired means—for instance, nails B^2—and provided with a series of openings B^3, having walls tapering together from the upper side of said sole downwardly. The object of the sole B′ is for the firm attachment of the outer rubber sole B^4, which when molded upon the securing-sole B′ enters the apertures or recesses B^3, filling the same with a wedge-shaped key integral with the body of the rubber forming the outer sole, and thus preventing a movement of the rubber sole upon the leather-securing sole. Within the shoe a suitable felted sole B^5 may be placed, if desired, and at the counter any suitable form of stiffening B^6. The leather and rubber soles having been firmly secured together, as hereinbefore described, the metallic calks C are introduced and extend through the rubber into the leather inner and securing soles, which afford a firm hold for the threaded or otherwise roughened tangs of the calks. The calks may be of any desired construction, as it will be obvious that any form of securing-tang will secure a firm hold upon the leather inner and securing soles, and thus prevent the tearing out in the movement of the shoe. The calks C are similarly applied at the heel of the shoe, and at this point any additional plies of leather may be applied when found necessary to build up the heel to the desired height. Particular attention is also called to the fact that the securing-sole B′, in contact with which the rubber is placed, is provided with rounded or curved edges B^7, which obviates all danger of cutting the rubber covering by an angular edge of the leather coming into contact therewith. The other soles may also be similarly curved at their edges to effect the same object. It will also be observed that the apertures in the securing-sole which receive the rubber keys extending upward from the outer sole are disposed between the tangs of the calks, and thus effectually prevent any movement of the leather upon the rubber sole, which would otherwise occur when a lateral or angular strain was placed upon the free end of the calk and serve to loosen the same in its continued use. The passage of the calk into

the leather body or sole also assists in holding the two soles together; but these securing-keys effectually prevent any relative movement of the soles. The securing-sole is also firmly attached to the main leather or inner sole, so as to produce a calked rubber boot or shoe adapted for all characters of rough usage, which, owing to the rubber outer sole and the disposition of the calks, would not become balled with snow and always secure a firm hold for the user upon a surface. It will further be seen that the calks as used by me will not become torn from the sole, nor will they turn over when the strain is placed at an angle to their length, which is frequently the case with calks that are not held by this method.

It will be obvious that this invention can be applied to any character of rubber boot or shoe and that changes may be made in the details thereof and in the character of calks used without departing from the spirit of the invention as defined by the appended claims.

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

1. A rubber boot or shoe having a sole comprising a leather securing-sole, a rubber outer sole, and a calk extending through said rubber sole and having its tang embedded in said leather sole; substantially as specified.

2. A rubber boot or shoe having a sole comprising a leather securing-sole, a rubber outer sole, and a calk extending through said rubber sole and having its tang embedded in said leather sole which is also provided with recesses to receive keys extending from said rubber sole; substantially as specified.

3. A rubber boot or shoe having a sole comprising a leather inner sole, a securing-sole attached thereto and provided with tapering recesses therein, a rubber outer sole having keys molded into said recesses; substantially as specified.

4. A rubber boot or shoe having a sole comprising a leather inner sole, a securing-sole attached thereto and provided with tapering recesses therein, a rubber outer sole having keys molded into said recesses, and a metallic calk having its tang passed through said rubber sole and embedded in said leather sole; substantially as specified.

5. A rubber boot or shoe having a sole comprising a leather inner sole having curved edges, a securing-sole attached thereto and provided with tapering recesses therein and curved edges, a rubber outer sole inclosing the edges of said securing-sole and having keys molded into said recesses, and a metallic calk having its tang passed through said rubber sole and embedded in said securing-sole between adjacent keys therein; substantially as specified.

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

AUGUSTUS F. VOGT.

Witnesses:
J. K. NOCKLEY,
EVERETT W. GASKILL.