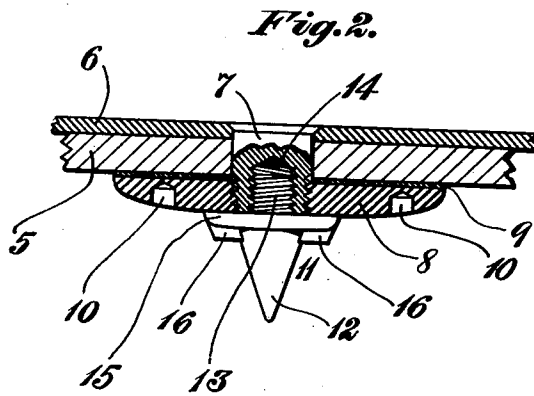
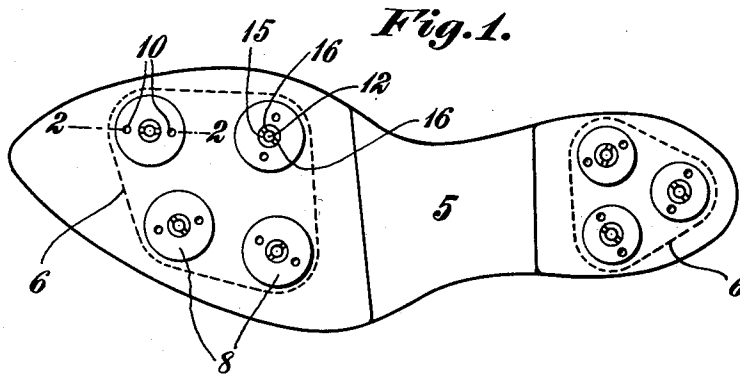


J. B. HART.
 BOOT OR SHOE CALK.
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1,025,087.

Patented Apr. 30, 1912.



Witnesses:
Edward T. Confield
L. L. Markel

Inventor:
John B. Hart
By his Attorneys,
Sutherland & Hudson

UNITED STATES PATENT OFFICE.

JOHN B. HART, OF HARTFORD, CONNECTICUT, ASSIGNOR TO THE NORTH AND PFEIFFER MANUFACTURING COMPANY, OF HARTFORD, CONNECTICUT, A CORPORATION OF CONNECTICUT.

BOOT OR SHOE CALK.

1,025,087.

Specification of Letters Patent.

Patented Apr. 30, 1912.

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To all whom it may concern:

Be it known that I, JOHN B. HART, a citizen of the United States, residing at Hartford, in the county of Hartford and State of Connecticut, have invented certain new and useful Improvements in Boot or Shoe Calks, of which the following is a specification:

This invention relates to boot or shoe calks, the object of the invention being to provide means whereby a calk can be quickly and readily connected with a boot, shoe or other article, and which when in place will be held positively and securely against accidental removal, the construction being such that the boot or shoe cannot be injured or worn by the calk or the parts associated therewith, one or more of said calks presenting an effective tread surface for the boot or shoe to thus increase the life and wearing qualities thereof and to also constitute an effective anti-slipping means. I might state that I have adopted the title above given, simply as a matter of convenience, as it is possible that the calk and the adjunctive elements can be employed with equal advantage in other connections. As already intimated it is likely that there may be instances where only one calk need be employed; ordinarily or in the case of footwear, however, they are generally arranged in a group or series on the under surface thereof.

In the drawings accompanying and forming part of the present specification I have represented in detail one of the several convenient forms of embodiment of the invention which to enable those skilled in the art to practice the same will be set forth fully in the following description, while the novelty of the invention will be included in the claims succeeding said description. From this observation it will be obvious that I do not limit myself to such disclosure; I may depart therefrom in several respects within the scope of the invention included in said claims.

Referring to the drawings: Figure 1 is a bottom plan view of the shoe provided with calks involving my invention. Fig. 2 is a longitudinal section on the line 2-2 of Fig. 1 and on an enlarged scale.

Like characters refer to like parts throughout the several figures.

As already set forth the calk can be used

in various ways, it being of especial utility when associated with an article of footwear which may be either a leather or rubber boot or shoe as 5 and in such a case several of said calks will preferably be connected with the sole and several with the heel, although as already stated this is not essential.

I prefer to provide a carrier or support for a calk or calks, and although this carrier or support may vary radically it may as shown consist of a relatively thin and therefore somewhat flexible plate 6. These plates are usually arranged in the boot or shoe at a desired place over the heel and sole respectively, and they may, if desired, be covered by the lining of the shoe, although this is not a material matter. Each carrier or plate is provided on its under side with several rigid projections or lugs which may be formed in any desirable way, and although these projections or lugs in the construction shown are the lower portions of studs or rivets as will hereinafter appear, this in not important as there may be instances where I should prefer to make the lugs or projections integral with the plate, the idea in view being preferably to provide means which depend from the plate and to which one or more calks can be connected. Should only one calk be used, there would only be a single lug or projection on the plate. Each plate 6 has as represented at desired points, holes or perforations through which rivets or studs as 7 are passed, the rivets closely fitting the said holes or perforations; as a matter of fact I prefer to drive the said rivets or studs into said holes or perforations so as to thereby effectually hold the same in place, the heads of the rivets 7 being countersunk in the upper portions of said holes so as to bring the tops of said heads flush with or in the plane of the upper faces of the respective plates. In the construction illustrated, the lower or extended portions of these rivets constitute the lugs or projections to which I have alluded.

Fitted around the lower extended portions of the rivets 7 are washers 8 which may be made of any suitable material such for instance as metal, and while these washers may be connected with the respective studs or rivets in any suitable way, they are preferably threaded thereonto, which provides for quickly applying or removing when neces-

sary the respective washers. These washers together with the plates reinforce and strengthen the sole and heel of the shoe or any other part in fact with which they may be connected. Should the sole or heel of the shoe be rubber, I prefer to interpose between the metal washers 8 and the rubber sole or heel, washers 9 of some soft material such as rubber or fiber, and in this way the edges or peripheries of the washers cannot cut into the rubber of the shoe. Should the shoe be of leather, the washers 9 may be omitted. To facilitate the application of the washers 8 they may as shown, be provided with diametrically-opposite counter-sinks 10 to receive a spanner.

Connected with the respective studs or rivets 7 are the calks 11 each calk comprising a point as 12 and a shank as 13, the said shanks 13 being adapted to removably fit openings as 14 in the lower or projecting portions of the respective studs or rivets 7, and while said shanks may be connected to said rivets in any desirable way, such connection is preferably by threading, each shank being threaded to fit corresponding threads upon the walls of the respective openings 14. The calks 11 have at the junction of the points 12 and shanks 13, disks or circular flanges 15 which when the shanks are driven home, are adapted to firmly engage against the bottoms of the respective rivets 7 and at the same time to overlie the respective washers 8 to thus assist in holding said washers in place. To aid in applying the calks 11 the disks or flanges 15 may as illustrated, be equipped with wings 16 which are adapted to enter slots in a wrench which tool, however, is not shown.

Owing to the fact that the pendent studs or rivets 7 are rigidly connected with the plate 6, it will be apparent that this plate in connection with the disks or projections

15 of the respective calks serves to firmly clamp the sole 5, by reason of which said plate can be securely held in place without the aid of independent holding means such as screws.

In applying the calks, the rivets 7 will first be connected with the appropriate plates 6. As a matter of fact each plate with its rivets or studs constitutes a unit. Holes will then be punched through or otherwise formed in the sole or heel of the shoe 5 at the proper places, after which said plates 6 will be inserted in the shoe and the projecting portions of the studs or rivets 7 passed through said holes. If necessary washers 9 will then be applied to the depending portions of the studs following which the washers 8 will be connected with the lower threaded portions of said studs and turned home by a wrench as already explained. Finally the threaded shanks 13 will be introduced into the threaded openings 14 of said rivets or studs 7 and said calks will then be driven into place and when they are the parts will be held in place with certainty and positiveness.

What I claim is:

1. In a device of the class described, the combination of a carrier having a pendent lug, a washer threaded onto said lug, and a calk threaded into the lug.

2. In a device of the class described, the combination of a carrier having a pendent lug, a washer threaded onto said lug, and a calk threaded into said lug and provided with a disk overlying said washer.

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

JOHN B. HART.

Witnesses:

JOHN B. MURPHY,
EDWARD T. CANFIELD.