(No Model.)

R. HEATON.

FELT BOOT.

No. 462,129. Patented Oct. 27, 1891.

Fig. 1.

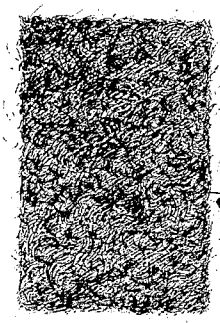


Fig. 2.

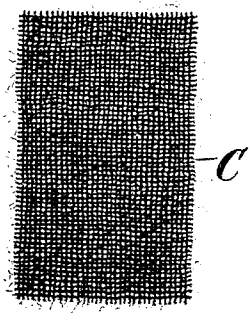
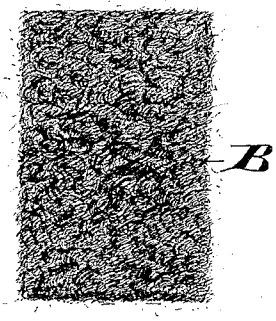


Fig. 3.



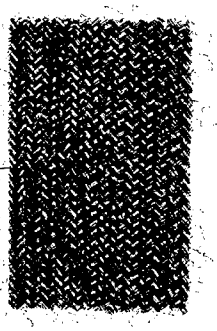


Fig. 4.

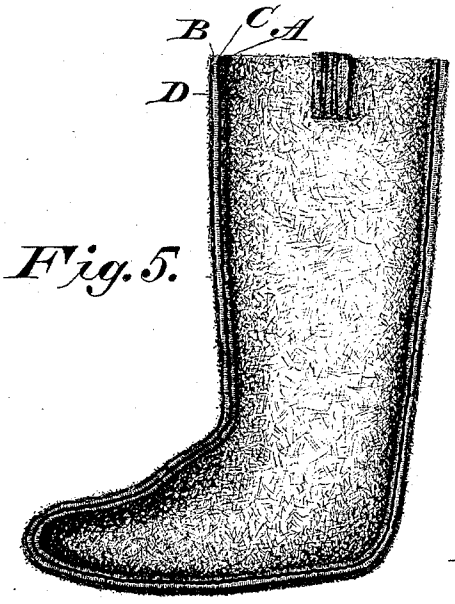


Fig. 5.

Witnesses
L. S. Elliott.
E. M. Johnson

Ryan Heaton
Inventor
by [illegible]
Attorney

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

RYAN HEATON, OF HOWELL'S DEPOT, NEW YORK.

FELT BOOT.

SPECIFICATION forming part of Letters Patent No. 462,129, dated October 27, 1891.

Application filed July 9, 1891. Serial No. 398,933. (No model.)

To all whom it may concern:

Be it known that I, RYAN HEATON, a citizen of the United States of America, residing at Howell's Depot, in the county of Orange and State of New York, have invented certain new and useful Improvements in Felt Boots; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

This invention relates to improvements in felt boots; and it consists in the novel construction and combination of the parts, which embody the employment of two bats and two fabrics of different nature and texture, which are thoroughly incorporated and united with each other and properly shaped, as will be hereinafter fully set forth, and particularly pointed out in the claim.

In the accompanying drawings, forming part of this specification, Figures 1, 2, 3, and 4 represent the materials of which the boot is composed; and Fig. 5 is a sectional view of the completed article.

A designates a thin bat of wool, such as is usually used in the manufacture of boots, and B a thicker and more compact bat of similar material.

C designates a reticulated wool fabric, the threads of which are double twist, and this fabric is comparatively loose, having in its original condition about eight threads to the inch in either direction.

D designates a knitted fabric of soft wool, the yarn being knitted in the form of a bag, one end of which is closed by stitching.

The hereinbefore-described materials are all incorporated with each other and form a solid and compact body when united by fulling and hardening. In the manufacture of a boot the fabric C is placed between the bats A and B, the thin bat A being on the inner side, after which these parts A, B, and C are united by a felting and fulling process, which is termed a "mammoth form." After the parts have been united in the usual manner I place upon what will be the toe, sole, and counter an additional piece of the fabric C and unite the same to the embryo bat by fulling. I then draw over the whole the knitted bag D and place the boot in this condition over a steam-former, when the parts are felted together by the usual process, and after being fulled is finished in the usual manner by being blocked, and can then be finished to be either plain or napped.

I am aware that prior to my invention it has been proposed to use in connection with a felt boot a bag of yarn loosely twisted in mammoth proportions and shrunk and consolidated with corded bats; also, that it is not broadly new to re-enforce a felt boot by incorporating at its heel or other wearing-point sections of knitted or woven fabric. It has also been proposed to incorporate fabric with the leg and foot portion of a boot.

My invention will be distinguished from the above by the structure which embodies a thin uncorded bat on the interior of the boot, which is incorporated with a heavier bat, between which is interposed a heavy woven reticulated fabric and over all a knitted fabric, the wearing portion of the boot between the knitted fabric and the thicker bat having an additional piece of fabric between the same, so that when the boot is finished the wearing portions will be of increased thickness and stiffness and the parts solidly incorporated with each other.

What I claim as new is—

As an improved article of manufacture, a felt boot or analogous article made up of a thin uncorded bat A, a thicker uncorded bat B, and an interposed reticulated wool fabric, the parts being incorporated with each other, and a knitted bag D, incorporated exteriorly with the above, the parts being united by felting them together so that the fibers will be incorporated with each other, substantially as set forth.

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

RYAN HEATON.

Witnesses:

JOHN H. MORGAN,

JNO. K. EVANS.