S. A. EDDINS.

METHOD OF TREATING SHOE COUNTERS.

APPLICATION FILED MAR. 11, 1908. RENEWED JUNE 26, 1911.

1,007,078. Patented Oct. 31, 1911.

FIG. 1

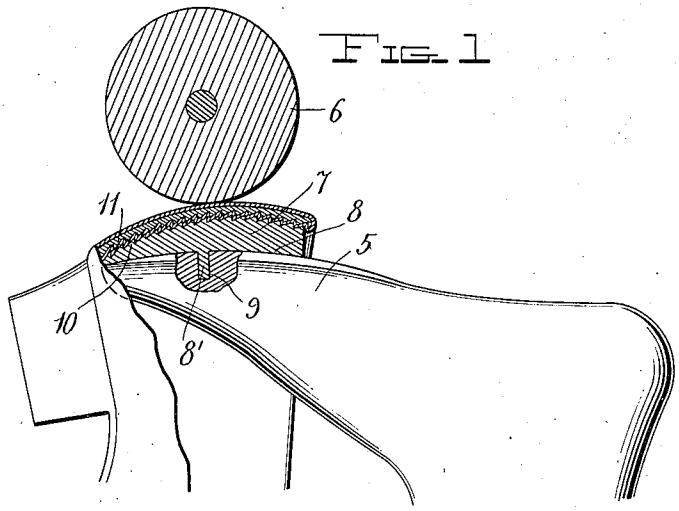


FIG. 2

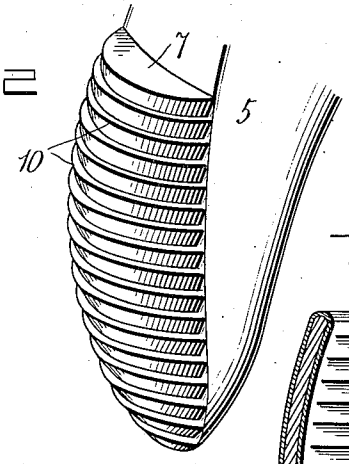


FIG. 3

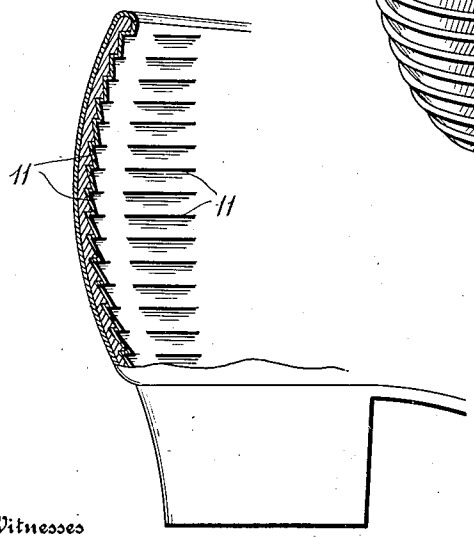
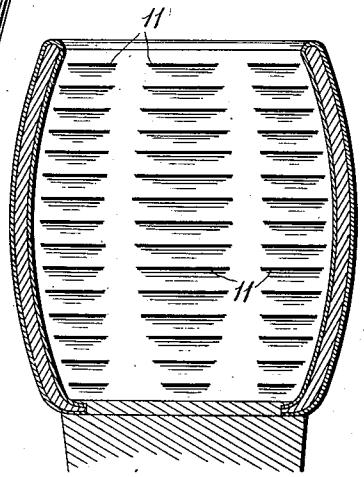


FIG. 4



Witnesses

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UNITED STATES PATENT OFFICE.

SEXTUS A. EDDINS, OF CHARLOTTESVILLE, VIRGINIA, ASSIGNOR TO O. A. MILLER TREEING MACHINE COMPANY, OF PORTLAND, MAINE, A CORPORATION OF MAINE.

METHOD OF TREATING SHOE-COUNTERS.

1,007,078. Specification of Letters Patent. Patented Oct. 31, 1911.

Application filed March 11, 1908, Serial No. 420,458. Renewed June 26, 1911. Serial No. 635,492.

To all whom it may concern:

Be it known that I, SEXTUS A. EDDINS, a citizen of the United States, residing at Charlottesville, in the county of Albemarle, State of Virginia, have invented certain new and useful Improvements in Methods for Treating Shoe-Counters; 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.

When a low shoe is first worn, it frequently happens that great inconvenience is caused the wearer due to the rubbing up and down of the inner face of the counter of the shoe upon the heel of the foot, this rubbing causing blisters; and in carrying out my present invention, which is embodied in a means of treating shoe counters, I have in view the obviation of this rubbing of the heel of a low shoe.

The method pursued in accordance with the principle of my invention, involves the forming of projections on the inner face of the counter of a low shoe, these projections being preferably in the form of corrugations which extend transversely of the counter and are arranged one above another in a series. I have found, by actual experiment, that the formation, in the counter of a low shoe, of such corrugations, will effectually prevent rubbing up and down of the counter of the shoe against the heel of the foot of the wearer and have further found that while such corrugations effectually prevent such rubbing of the heel, they do not render the shoe uncomfortable to wear in any manner whatsoever. In forming such corrugations, I preferably provide a last upon the toe of which is disposed a transversely corrugated treating member which is convex in two directions to conform to the transverse and to the vertical curvature of the counter; and, having placed this last upon a suitable support, act upon the heel of the shoe with a roller which coöperates with the support to compress and roll the leather of the heel or counter, thereby forming the corrugations heretofore mentioned. While I have devised such a last attachment or more broadly speaking, such a means for accomplishing the result stated, for use in connection with the machine shown and described in my copending application on "machines and devices for breaking in footwear", filed November 26, 1907, Serial No. 403,978, it is to be understood of course that such means may be employed in any other connection and that compression may be applied other than by means of a roller if found expedient.

In the accompanying drawings, Figure 1 is a view showing a last and my attachment in side elevation, a shoe counter engaged therewith in section and the roller also in section for pressing the counter against the attachment. Fig. 2 is a detail perspective view of the toe portion of a last showing the attachment in place thereon. Fig. 3 is a detail vertical sectional view through the heel of a low shoe showing the manner in which the corrugations are formed, the section being taken in a direction from toe to heel, and, Fig. 4 is a similar view but taken in a plane at right angles to the plane of Fig. 3.

In the drawings, the numeral 5 indicates the toe portion of the last which supports the corrugating attachment, and 6 the roller which coöperates with the last and attachment for compressing the leather of the counter. The attachment is illustrated as comprising a block 7 having a slightly concaved under face 8 which adapts it to fit upon the face of the last, there being a stud 8′ formed upon the said concaved under face of the attachment and fitted removably into a socket 9 formed in the last 5. The working face of the block 7 is convexed transversely and longitudinally so as to conform to the transverse and vertical curvature of the counter of the shoe to be treated and the said working face is formed with a plurality of transversely-extending corrugations 10. As shown in the drawings, the corrugations are so formed that they have abrupt shoulders which are presented rearwardly, that is, in the direction of the heel of the last, and the function of this construction will presently be explained.

As clearly shown in Fig. 1 of the drawings, the shoe to be treated is placed upon the last so that the block 7 is received in its counter or heel, and the last is then presented in operative relation to the roller 6, the roller being then operated; or, if desired, the last and its support may be swung

backwardly and forwardly beneath the roller, the object being to compress the leather of the counter and form therein corrugations.

From the foregoing, it will be understood that upon compression of the leather of the counter in the manner above described, corrugations will be formed in the inner surface of the counter of the shoe, these corrugations being illustrated in Figs. 3 and 4 of the drawings as being formed transversely of the counter of the shoe and in vertical series. The corrugations are indicated by the numeral 11; and by reason of the peculiar formation of the corrugations upon the block 7, the corrugations 11 are formed with abrupt shoulders which are presented in a downward direction so as to positively engage and prevent upward movement of the heel of the foot relatively to the heel portion of the shoe. While I have illustrated in the said Figs. 3 and 4 of the drawings, the counter of a low shoe formed with three such series of corrugations, it will be understood that this is merely to illustrate the fact that more than one of such series may be formed if found necessary, expedient, or desirable. For example, it may be desirable to form only one series of corrugations directly at the back of the counter, or it may be desirable to form a series of corrugations on each side of the middle of the back of the counter, or it may be desired to form three such series, one at the middle of the back and one series to each side of the middle series, it being understood of course that I am not to be limited to the number of series to be formed nor to their location. It will also be understood that I may roughen the inner surface of the counter of a low shoe in any manner found most expedient and that this may be accomplished other than by forming corrugations in the counter.

Having fully described my invention, what I claim as new and desire to secure by Letters Patent of the United States is:—

1. The herein described method of treating a shoe which consists in applying pressure to a portion of the outer face of the counter throughout the entire extent of said portion and resisting said pressure at separated points of the corresponding inner face of said counter thereby to form projections on said inner face without altering the original formation of said outer face.

2. The herein described method of treating a finished shoe which consists in applying pressure to every point of the outer face of the counter throughout the extent of the area to be treated and resisting said pressure throughout spaced, parallel, horizontally-disposed areas of the corresponding part of the inner face to force inwardly those portions of the stock of the counter against which no resistance is applied, thereby to produce corrugations on the inner face of the counter extending transversely of the shoe without altering the original formation of the outer face of the counter.

3. The herein described method of treating a finished shoe which consists in applying pressure progressively to the outer face of the portion of the counter to be treated and resisting said pressure throughout spaced, parallel horizontally-disposed areas of the corresponding portion of the inner face to force inwardly those portions of the stock of the counter against which no resistance is applied thereby to produce corrugations on the interior of the counter without altering the original formation of the exterior of the shoe.

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

SEXTUS A. EDDINS.

Witnesses:
B. Walker Webb,
Edna H. Bailey.