

No. 766,101.

PATENTED JULY 26, 1904.

W. CRONER.
BOOT OR SHOE.

APPLICATION FILED JULY 17, 1903.

NO MODEL.

Fig. 1.

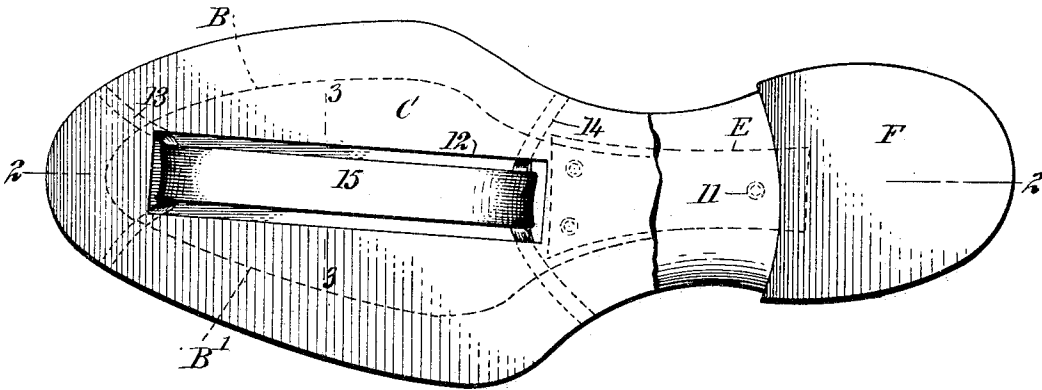


Fig. 2.

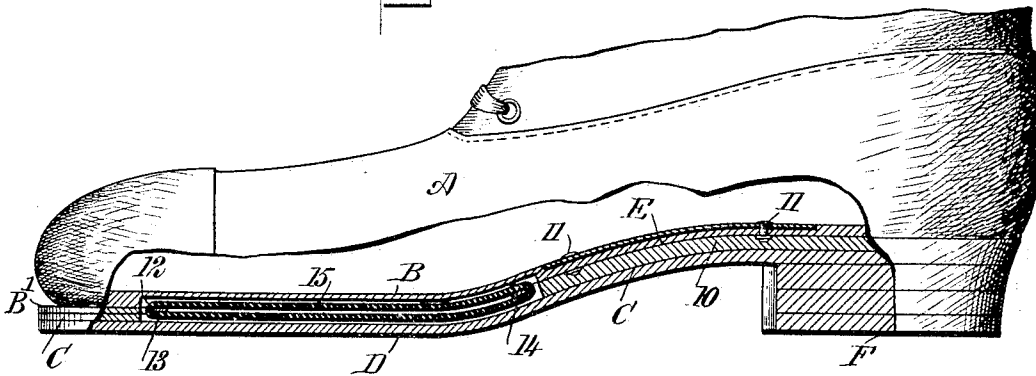
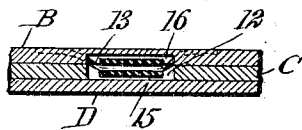


Fig. 3.



WITNESSES:

Julius W. Lutz
Charles A. Lutz

INVENTOR

William Croner

BY

Mumma
ATTORNEYS.

UNITED STATES PATENT OFFICE.

WILLIAM CRONER, OF NEW YORK, N. Y.

BOOT OR SHOE.

SPECIFICATION forming part of Letters Patent No. 766,101, dated July 26, 1904.

Application filed July 17, 1903. Serial No. 165,956. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM CRONER, a citizen of the United States, and a resident of the city of New York, borough of Manhattan, in the county and State of New York, have invented a new and useful Improvement in Boots or Shoes, of which the following is a full, clear, and exact description.

My invention relates to the construction of the sole portions of boots and shoes; and the purpose of the invention is to provide an elastic medium concealed within the sole which will tend to keep the sole normally flat throughout its length and which will add to the elasticity of the tread, particularly in what is known as "flat-last" shoes.

Another purpose of the invention is to so place and secure the elastic medium that it will be wholly concealed and perfectly protected and so that it may be readily applied to the soles of both boots and shoes as ordinarily constructed without interfering in any manner with the usual combination of the parts.

The invention consists in the novel construction and combination of the several parts, as will be hereinafter fully set forth, and pointed out in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the figures.

Figure 1 is a bottom plan view of a shoe having the improvement applied to its sole, the outer sole being broken away to disclose the intermediate sole in a double-soled shoe and the tension section of the device. Fig. 2 is a partial side elevation of a shoe and a section through its sole, which section is taken practically on the line 2 2 of Fig. 1; and Fig. 3 is a transverse section through the sole of the attachment, the section being taken substantially on the line 3 3 of Fig. 1 within the line of the welt.

A represents the upper portion of a shoe; B, the insole, to which the welt B' is secured in the usual manner. C represents what may be termed the "inner" or "intermediate" section of a double sole, D the main or outer

section of the same, and E represents the steel shank which is usually employed in the construction of boots and shoes, which shank, as shown, is preferably embedded in a recess 10 in the upper face of the insole B, extending to a point over the heel F, the upper portion of the shank E being flush with the upper surface of the insole, so as to form no obstruction. The said shank is attached to the insole by rivets 11 or their equivalents.

In the central longitudinal portion of the inner section C of the main sole a slot 12 is produced, which extends from a point near the toe to a point where the tread of the sole connects with the instep-section of said sole of the shoe, as is shown in Fig. 1. Strips 13 and 14, preferably of a tough stout material, such as rawhide or the like, are secured to the bottom of the insole, preferably between the insole and the welt, by stitching or otherwise, and, as is shown in Fig. 1, these strips 13 and 14 cross the said opening or slot 12 in the upper section C of the main sole at each end of the said opening, as is shown in both Figs. 1 and 2. An elastic band 15, preferably made from gum-rubber of proper quality and of suitable thickness, is stretched the length of the opening 12 in the said section C of the main sole, and the toe-strip 13 passes through the said elastic band 15 at the toe end of the said opening 12, while the opposing strip 14 passes through the band at the heel end of the said opening 12, as is also shown in Figs. 1 and 2. As stated, this band 15, which is the elastic medium referred to in the preamble, is under tension, and the normal tension is such that the sole of the shoe will be kept perfectly flat throughout its length in engagement with the surface over which the wearer may travel. Ordinarily it may be noted that in the construction of boots and shoes the soles are given more or less of an upward curve at their toe portions, and this elastic device is adapted to prevent any such upward tendency being present and at the same time affords a cushion for the tread, imparting elasticity thereto which is absent when the sole is made directly flat and is so worn under the ordinary construction. The

opening 12 is duplicated to a greater or a less extent in the under face of the insole B, as is shown at 16 in Fig. 3.

The outer section D of the main sole is attached to the inner section C in the customary manner, and the upper member or section C of the main sole is secured to the insole in any desired manner, and the rear portion of the lower section D of the main sole is carried rearward to the heel, and although in the drawings the upper section of the main sole is likewise carried rearward to the heel such construction is not necessary, as the inner or upper section of the main sole is usually tapered at its rear and terminates at that point where the tread of the outer section of the main sole connects with its instep-section.

Under the foregoing construction it will be observed that the sole of the shoe will be kept flat to the ground throughout its length while the person is standing and also while the person is walking, and at the same time the sole of the shoe will be more or less cushioned and rendered elastic, thus obviating the tendency to weariness which frequently is experienced by persons not accustomed to walking in flat-last shoes and also preventing the upturning of the toe-sections of such shoes, even when the shoes have been worn for a long time, as should the sole of the shoe flex at the toe when the foot leaves the surface as soon as the foot is fully raised the spring immediately acts to restore the sole to its normal flat shape, since the strength of the spring is so calculated and it is so placed and guarded that it draws horizontally on a central longitudinal line of the sole, tending to curve the toe of the sole neither one way nor the other and keeping the sole flat under all ordinary conditions of use, automatically restoring it

to its proper shape when such conditions are departed from. In other words, the attachment to the shoe above described serves to normally hold the shoe in its original shape. The invention also prevents the buckling of the vamps, which causes so many sore feet, as the shoe with an elastic band fastened between the outer and inner sole is drawn downward, keeping the wrinkles out of the vamps which are formed with every step, but relax at the same time the foot rises.

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

1. In boots and shoes, a sole, an elastic located and guided longitudinally within the layers of the sole, and fastening elements for the terminals of the elastic, one fastening element being located at the toe portion of the sole and the other also on the sole, but adjacent to the under instep portion of the boot or shoe, as set forth.

2. In boots and shoes, the combination with the upper and the insole, of a main sole having a longitudinal channel therein below the insole, an elastic band located within the said channel, and strips secured to the insole at the toe and adjacent to the instep portion thereof, which strips pass through the ends of the said band and hold the same under tension and the sole flat against the surface with which it engages throughout the length of the sole, as specified.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

WILLIAM CRONER.

Witnesses:

J. FRED. ACKER,
JNO. M. RITTER.