C. J. DUNN & G. F. CAIN.

SHOE. Patented June 15, 1886. No. 343,573.  $\boldsymbol{\mathcal{A}}$ *Fig.* 1. B B ¥ig.2. ¥ig. 3. Inventor: Witnesses. A. Ruppert. R. Grant C. J. Dunn. ] G. J. Cain S Per Phinpson,

## UNITED STATES PATENT OFFICE.

CHARLES J. DUNN AND GEORGE F. CAIN, OF VENICE, ILLINOIS; SAID DUNN ASSIGNOR TO SAID CAIN.

## SHOE.

SPECIFICATION forming part of Letters Patent No. 343,573, dated June 15, 1886.

Application filed January 23, 1886. Serial No. 189,480. (No model.)

To all whom it may concern:

Be it known that we, CHARLES J. DUNN and GEORGE F. CAIN, citizens of the United States, residing at Venice, in the county of Madison 5 and State of Illinois, have invented certain new and useful Improvements in the Method of Preparing an Upper in One Piece for Attachment to a Shoe-Sole; and we do 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 the letters and figures of reference marked thereon, which form a part of this specification.

The special object of the invention is to make a shoe or gaiter with a one-piece upper, cut alternately in reverse, so as to economize stock, crimped on the lines of cut for ankle 20 and instep before the slits for these are made, and the whole upper made to assume a shape which it will afterward maintain.

Figure 1 of the drawings represents a piece of upper-stock with the patterns or blanks cut alternately in reverse. Fig. 2 is a side elevation of the crimper with the upper-pattern stretched and fastened thereon. Fig. 3 is an elevation in perspective of the upper, showing the ankle and instep slit and the completed so shoe.

In the drawings, A represents a piece of stock, from which we cut in outline three patterns, B, alternately in an opposite direction, so as to minimize the scrap or waste. The pattern B is cut so as to have at an obtuse an-

gle to each other the two edges b b, which, when doubled and sewed together, form the heel-seam—the only one which the upper has; also, to have slightly-converging edges b' b', to form the ankle-sides, and the oval point  $b^2$ , for 40 the toe

Next, without making any slit or cut whatever in the pattern or blank, we stretch it across the crimper C on a longitudinal median line, which will rest upon the instep curve c 45 and straight ankle-line c'. We then tack the edges of the stretched pattern to each side of the crimper, on which it remains until the desired shape has been secured. After removing the blank from the crimper we cut on the 50 line of fold or crimp, to form the ankle-slit D and the instep-slit E.

The advantages of our invention are, that we economize stock, make a shape that will stay, and insure a nice easy fit.

What we desire to protect by Letters Patent is—

A pattern for shoe-uppers, having the obtuse-angled edges b b, the slightly-converging sides b' b', and the oval end  $b^2$ , whereby it may 60 be crimped, ankle and instep openings made by a single slit, and a heel-seam formed, as shown and described.

In testimony whereof we affix our signatures in presence of two witnesses.

CHARLES J. DUNN. GEORGE F. CAIN.

Witnesses:

T. S. CAVNER, W. H. H. SQUIRE.