

H. M. HANSEN.
 BOOT AND SHOE.
 APPLICATION FILED MAR. 9, 1908.

988,774.

Patented Apr. 4, 1911.

Fig. 1.

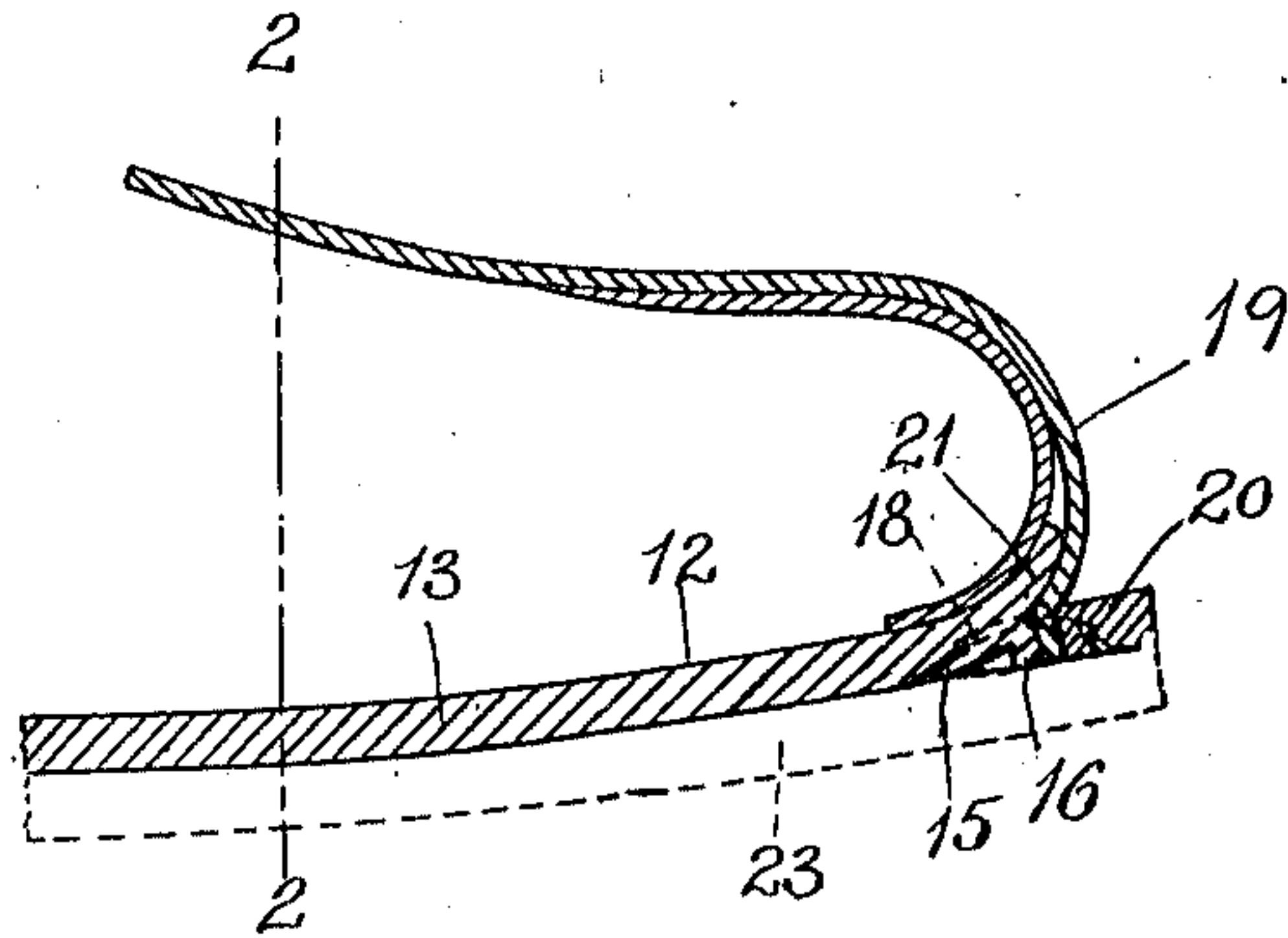


Fig. 2.

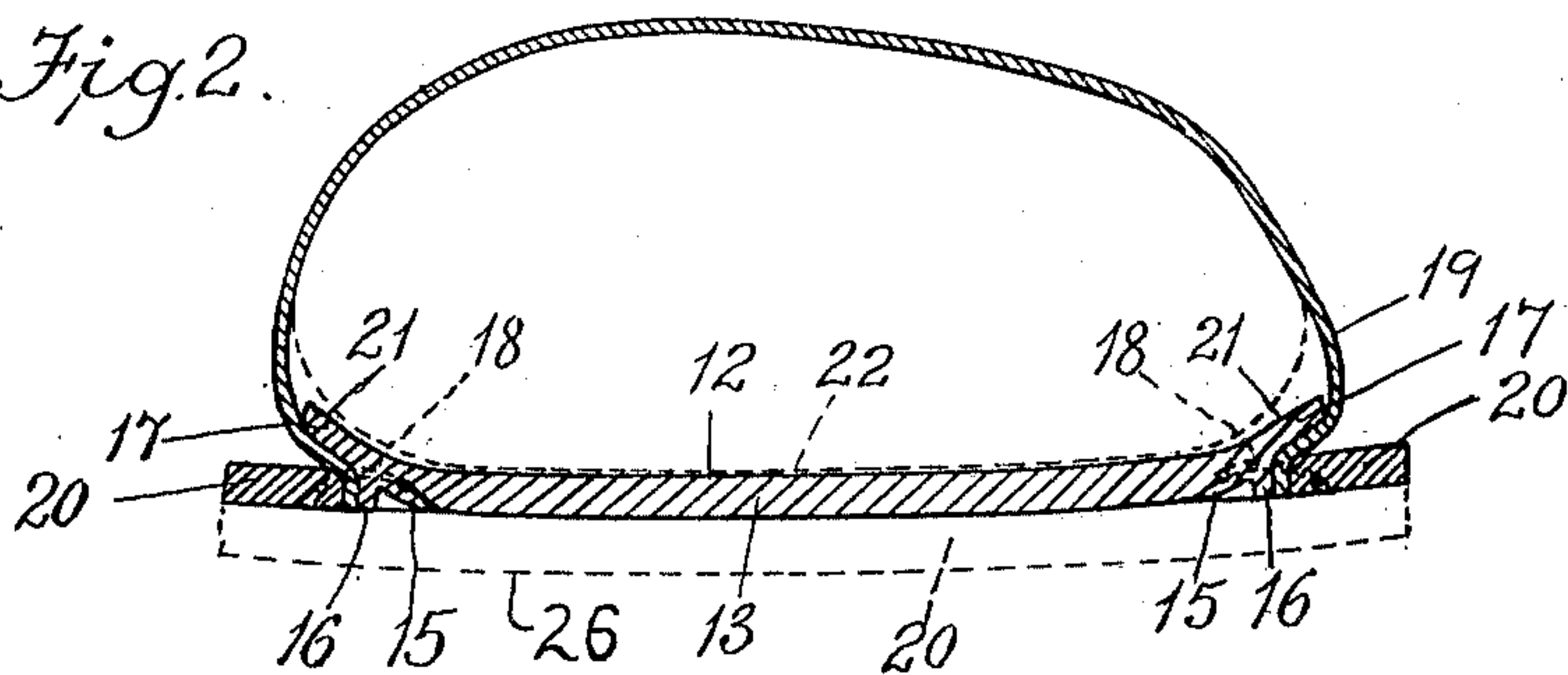
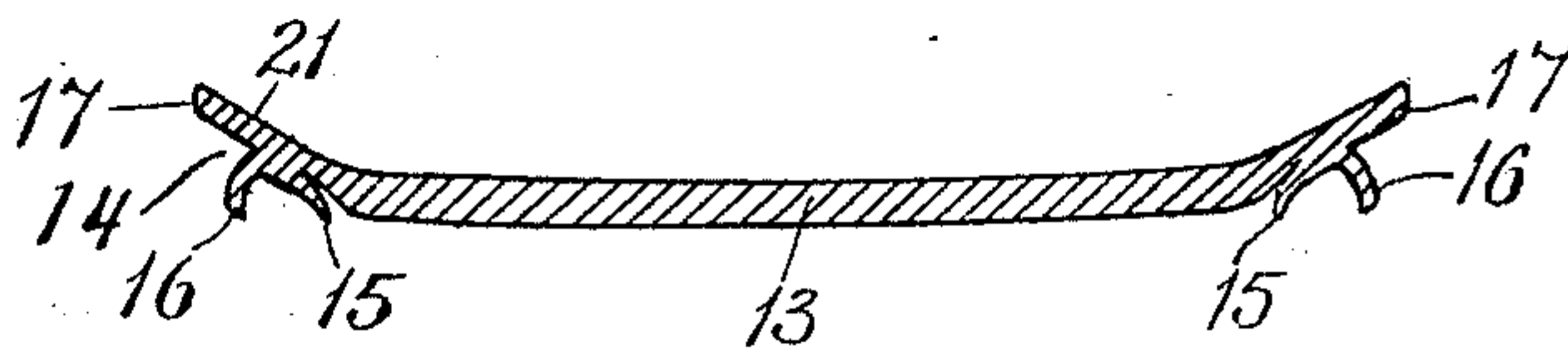


Fig. 3.



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UNITED STATES PATENT OFFICE.

HANS M. HANSEN, OF QUINCY, MASSACHUSETTS.

BOOT AND SHOE.

988,774.

Specification of Letters Patent.

Patented Apr. 4, 1911.

Application filed March 9, 1908. Serial No. 420,086.

To all whom it may concern:

Be it known that I, HANS M. HANSEN, of Quincy, in the county of Norfolk and State of Massachusetts, have invented certain new and useful Improvements in Boots and Shoes, of which the following is a specification.

This invention has for its object to provide a welted boot or shoe, the foot-supporting surface of which is caused, in the operation of manufacturing the shoe, to conform closely to the bottom of the forepart of the wearer's foot by being raised along its marginal portion, and correspondingly depressed within the marginal portion, the raised or upwardly bent marginal portion fitting the curves of the wearer's foot between the sole and sides of the foot, while the depression of the main portion of the foot-supporting surface locates said main portion practically flush with the upper side of the exposed edge of the sole, so that sufficient room is afforded for the comfortable reception of the wearer's foot, particularly at the toe portion, without giving the upper an objectionable height or projection above the sole edge.

The invention consists in the improvements which I will now proceed to describe and claim.

Of the accompanying drawings forming a part of this specification,—Figure 1 represents a longitudinal section of the toe part of a welted boot or shoe embodying my invention. Fig. 2 represents a section on line 2—2 of Fig. 1. Fig. 3 represents a transverse section of the inner sole represented in Fig. 2 before its incorporation into the shoe.

The same letters of reference indicate the same parts in all the figures.

In the drawings, 12 represents the foot-supporting surface of the bottom of a boot or shoe, said surface being in this case the inner side of the inner sole 13, said inner sole having an outer channel 14 in its edge, and an inner channel 15 in its outer side, one side of the outer channel 14 forming the usual lip 16, while the other side forms the usual feather 17. The material between the bottom of the channels 14 and 15 constitutes the usual between-substance through which pass the stitches 18 of the inner seam which unites the upper 19 and welt 20 to the inner sole.

In carrying out my invention, I raise the marginal portion of the foot-supporting sur-

face 12 by bending it along the line of the inner channel 15 and toward the interior of the shoe in such manner as to form a marginal incline 21, said incline extending along the sides and around the toe of the forepart of the foot-supporting surface. Said surface is thus adapted to conform to the contour of the bottom of the wearer's foot, said contour being indicated by the dotted line 22 in Fig. 2. The described bending of the inner sole not only conforms the foot-supporting surface to the contour of the bottom of the foot, as above described, but it also depresses or offsets the body portion of the inner sole so that its under surface is flush with the outer edge surface of the lip 16, and with the under surface of the welt 20, said surfaces constituting a practically continuous seat for the outer sole 23. The outer sole is therefore adapted to bear directly upon the outer side of the inner sole, so that the employment of the usual filling between the portion of the inner sole surrounded by the lip 16 and the corresponding portion of the outer sole, is avoided.

It will be seen that the welt, the lip 16 and the portion of the upper interposed between the welt and the lip, constitute a filling between the inclined marginal portion of the inner sole and the corresponding portion of the outer sole, the lip, the inner portion of the welt, and the interposed portion of the upper constituting a support which makes the marginal incline of the inner sole permanent. The outer sole is not bent at its marginal portion to correspond with the bent portion of the inner sole.

Another important advantage resulting from the described inward inclination of the marginal portion of the foot-supporting surface is that sufficient space is insured between the body of the foot-supporting surface at the toe portion of the shoe and the corresponding portion of the upper above it for the comfortable reception of the wearer's foot and the avoidance of uncomfortable pressure on the toe portion of the foot, without giving the upper an objectionable protuberance or appearance of fullness above the exposed edge of the sole.

An especially important advantage resulting from my invention is not only the saving of any filling, but a saving in the upper leather and in the lining material, and the material of the toe cap. As shown in Fig. 2 the under surface of the body por-

tion of the inner sole bears directly on the outer sole (indicated at 26 by dotted line) so as to require the interposition of no filling of any kind. And since, of course, during the manufacture of the shoe, a last having a beveled margin is employed as indicated by the dotted lines in Fig. 2, there is a material saving in the amount of upper leather, and in lining material and toe cap material over what is required when a last having abrupt or angular corners is employed.

The bending of the marginal portion of the inner sole raises both the feather 17 and the lip 16 so that the side of the lip against which the upper bears is raised above the outer surface of the body portion of the sole, instead of projecting below the said outer surface. The feather 17 is not only raised with the lip by the bending of the sole, but its under surface on which the upper bears, is inclined by the bending operation, instead of standing substantially parallel with the sides of the inner sole. It will be seen, therefore, that the portion of the upper that bears on the feather 17 does not have to be bent abruptly inward, but is inclined with the outer surface of the feather. The described elevation of the lip 16 above the bottom of the sole and the inclination of the upper supporting surface of the feather 17, both caused by the bending of the marginal portion of the sole, therefore cause a material saving in the quantity of upper and lining material.

It will be seen, particularly by reference to Fig. 1, that the exposed edge of the sole, formed by the outer edges of the welt and the outer sole, is relatively higher than in an ordinary boot or shoe, owing to the fact that the inner sole bears directly upon the outer sole, while the outer surface of the welt is practically flush with the outer sur-

face of the inner sole. The inner surface of the welt is therefore practically flush with the inner surface of the inner sole instead of being below such surface as usual. Hence the foot-supporting surface 22 is lower relatively to the exposed edge formed by the welt and the outer sole than would be the case if the inner sole were not bent to form a marginal incline 21.

I claim:

A welted shoe having in the margin of its inner sole an outer channel forming a feather and a lip, and in the outer side of said inner sole an inner stitch-receiving channel, the marginal portion of the inner sole being bent along the line of the inner channel toward the interior of the shoe, whereby the feather and lip are raised from the outer surface of the sole, the under side of the feather is inclined, and the under surface of the body portion of the inner sole is offset and made flush with the outer edge surface of the lip and with the under surface of the welt to enable said under surface of the body portion to bear directly on the outer sole without the interposition of filling, the upper surface of the bent marginal portion being conformed to the marginal portions of the bottom of the foot, the bent marginal portion of the inner sole being supported by the said lip, the inner portion of the welt, and the interposed edges of the upper, the lower portion or margin of the upper and lining following the inclination of the under side of the feather, and terminating at the raised outer edge of the lip.

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

HANS M. HANSEN.

Witnesses:

C. F. BROWN,
P. W. PEZZETTI.