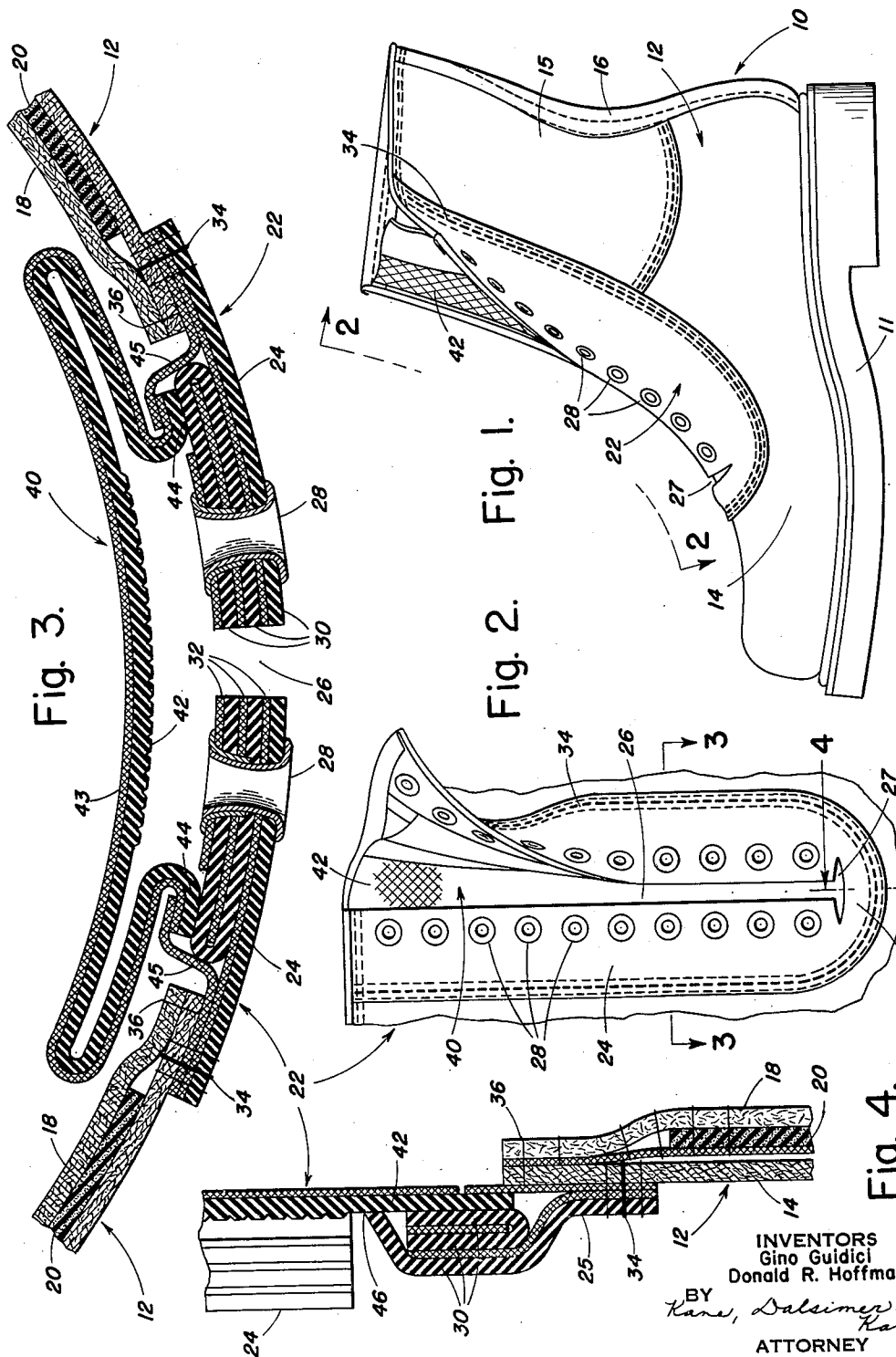


Oct. 23, 1962

G. GUIDICI ET AL
 BOOT OR SHOE HAVING WATER RESISTANT
 CLOSURE AND GUSSET ASSEMBLY
 Filed March 6, 1961

3,059,353



INVENTORS
 Gino Guidici
 Donald R. Hoffman
 BY
Kane, Salsimer and Kane
 ATTORNEY

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3,059,353

BOOT OR SHOE HAVING WATER RESISTANT CLOSURE AND GUSSET ASSEMBLY

Gino Guidici, Endicott, and Donald R. Hoffman, Binghamton, N.Y., assignors to Endicott-Johnson Corporation, Endicott, N.Y., a corporation of New York

Filed Mar. 6, 1961, Ser. No. 93,560

4 Claims. (Cl. 36—50)

This invention relates to an improved water resistant boot or shoe, and more particularly to an improved water resistant closure and gusset assembly for boots and shoes.

For many different purposes and activities, it is desirable to provide a water tight or water resistant boot or shoe. Such boots or shoes generally extend upwardly above the ankle and the upper is provided with an opening at the top and also a longitudinal opening at the front of the shoe. Difficulty has frequently been encountered in providing a satisfactory water tight or water resistant closure for the longitudinal opening at the front of the shoe upper. Thus, certain of the closures for the front opening of the upper have not been adequately water resistant, or it has been difficult to assemble them with the shoe upper, or they have been excessively costly or have presented an unattractive appearance.

It is a prime object of the present invention to overcome the difficulties heretofore encountered and to provide an improved water resistant boot or shoe, and particularly an improved water resistant closure and gusset assembly for such a shoe which is adequately water tight or water resistant, which presents an attractive appearance, which may be made as a separate unit and readily assembled with the shoe upper and which is relatively inexpensive to manufacture.

In the accompanying drawing:

FIG. 1 is a side elevational view of a boot or shoe having an improved water tight or water resistant closure and gusset assembly embodying our invention with one of the closure strips being folded back to reveal the relationship of the gusset with the remaining parts;

FIG. 2 is a front elevational view in the direction of the arrows on the line 2—2 of FIG. 1 of our improved closure and gusset assembly and also showing one of the closure strips folded back;

FIG. 3 is a cross-sectional view in the direction of the arrows on the line 3—3 of FIG. 2 showing our improved closure and gusset assembly and the interconnection with the shoe upper; and

FIG. 4 is a detailed sectional view in the direction of the arrows on the line 4—4 of FIG. 2 showing the lower portion of our improved closure and gusset assembly and the manner in which it is connected to the shoe upper.

Our invention is particularly applicable to a boot or shoe having a relatively high upper extending well above the ankle of the wearer. Such a boot or shoe is open at the top and is also provided with a longitudinal opening at the front of the upper to permit the wearer to insert his foot into the boot or shoe.

We have found that we can accomplish our intended purposes by providing an improved closure and gusset assembly for the longitudinal opening at the front of the shoe upper in the form of a blank made of a flexible water tight or water resistant material of generally U-shape having a pair of longitudinal strips connected at

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their lower ends by an interconnecting strip and having a central slotted opening extending from the interconnecting strip to the top of the blank. A row of fastening means are provided on each longitudinal strip adjacent the slotted opening, such as apertures or eyelets, extending through the strips and a gusset is extended across the slotted opening from the lower end to a point adjacent the upper end thereof. In this connection, the gusset extends across or bridges the apertures or fastening means as the slotted opening and is secured inside the closure blank from a point near the upper end of one side thereof downwardly across the lower end and thence upwardly to a point adjacent the upper end of the other side.

Our invention is applicable to any relatively high boot or shoe, preferably of water resistant or water tight construction. Thus, in the accompanying drawings we have shown an improved boot or shoe 10 of water resistant or water tight construction having a sole and heel assembly 11 made of leather, natural or synthetic rubber or other water tight or water resistant material, such as various synthetic plastics or resins used for this purpose. Secured to the sole assembly in any known water tight or water resistant manner is the shoe upper shown generally at 12 which, likewise, is made of a suitable water resistant or water tight material such as leather, synthetic plastic or resin or natural or synthetic rubber.

The upper may be of any known design, and for purposes of illustration we have shown an upper formed of a combined toe cap and vamp blank 14 with quarter or top blanks 15 and a back stay 16 suitably secured thereto and to each other by lines of water tight or water resistant stitching. The upper may be provided with a suitable lining 18 of leather, textile material, plastic or resin and with an interlining 20, preferably of a suitable insulating material such as cellular or foam, natural or synthetic rubber, plastic or resin.

As previously indicated, this boot or shoe may be of any known water tight or water resistant construction, and the illustrated boot is merely one type of footwear to which our invention is applicable.

The upper is open at the top and is also provided with a longitudinally extending front opening to permit the foot of the wearer to be inserted into the boot.

Our improved closure and gusset assembly is illustrated generally at 22 and is applied to the longitudinal front opening of the boot. The improved closure and gusset assembly consists generally of a closure blank made of suitable water tight or water resistant material, such as leather, synthetic or natural rubber, plastic or resin, and is of generally U-shape having a pair of longitudinal strips 24 with an interconnecting strip 25 at their lower end and a central slotted opening 26 extending upwardly from the interconnecting strip to the top of the blank whereby the upper ends of the two strips may be shifted apart or folded back into spaced relationship with respect to each other. The lower end of the slotted opening 26 preferably terminates in a transverse aperture 27 so as to facilitate the folding back or shifting of the two longitudinal strips.

The two strips are preferably provided with fastening means 28 arranged in longitudinal rows adjacent the slotted opening as shown and the fastening means are preferably of the type which cooperate with lacing for securing the front of the shoe in closed position. In the

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illustrated embodiment the fastening means 28 takes the form of eyeletted apertures extending completely through the longitudinal strips.

As shown most clearly in FIG. 3, in a preferred embodiment of our invention the blank 22 preferably consists of a plurality of plies 30 of a water tight material such as natural or synthetic rubber with intermediate plies 32 of textile fabrics, such as cotton, all suitably laminated together as by means of a latex or rubber cement. The eyeletted apertures extend through the laminated plies of the blank. The outermost ply of the blank preferably extends laterally and also downwardly beyond the two innermost plies forming a marginal attaching portion 34 extending from a point adjacent the top of each of the strips downwardly to the bottom thereof and around the lower edge of the interconnecting strip 25, and this marginal attaching area is suitably secured to the shoe upper by a continuous water resistant attachment such as multiple, specifically three, rows of water tight or water resistant stitching extending through the outer layer only of the shoe upper. In addition to the stitching, an adhesive or cement may also be applied between the marginal area 34 and the upper. The inner lining 18 of the shoe upper is secured to the outer ply of the upper by another line of stitching 36 positioned between the lines of stitching at the marginal area 34 and the end of gusset 40.

A water tight or water resistant gusset 40 is also included in our closure and gusset assembly and it extends across the slotted opening 26 from a point below the lower end of the slotted opening 26 to a point adjacent the upper end thereof. In this connection the gusset is attached to the blank by a continuous water tight or water resistant attachment extending from a point adjacent the upper end of each of the strips 24 on the side of the eyeletted apertures 28 opposite from the slotted opening 26 to the lower end thereof and thence across the interconnecting strip 25 beneath the slotted opening. Thus, the gusset completely bridges the slotted opening 26 and the eyeletted apertures 28 so that any water or moisture entering through these areas is prevented from entering into the shoe by the gusset.

The gusset preferably takes the form of a waterproof, flexible strip 42 made of natural or synthetic rubber, plastic or resin, preferably having a lining 43 made of a textile material suitably cemented thereto as by latex or rubber cement so as to reinforce the gusset.

The gusset is preferably provided with longitudinally extending folds or pleats, as shown particularly in FIG. 3, extending down the two sides thereof so that the opening at the front of the shoe may be expanded to permit the insertion of the foot. The rubber or plastic ply of the gusset is preferably cemented to the inner surface of blank 22 along continuous lines 44 extending from adjacent the upper end of each of the longitudinal strips 24 to the lower end thereof intermediate the eyeletted apertures 28 and the attaching margin 34. In addition, a layer of lining material 45 made of cotton or other reinforcing textile material may be cemented over the inner surface of the marginal edges of the gusset and extended outwardly to the edges of the blank, as shown between the attaching margin 34 of the blank and the inner edges of the upper, so as to be stitched directly to the upper.

At its lower end the rubber or plastic ply 42 of the gusset is secured directly to the interconnecting strip of the blank as by being cemented thereto, as shown at 46. Thus, a continuous water tight connection is provided between the gusset and the blank from a point adjacent the upper end of one of the longitudinal strips to a point adjacent the upper end of the other longitudinal strip with the gusset completely bridging and covering the slotted opening 26 and the eyeletted apertures 28.

It will be appreciated that the usual laces are assembled with the eyeletted openings and that in using the boot

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or shoe the lace is loosened, the front opening of the shoe is expanded so that the foot may be inserted and thereafter the front closure is drawn tight by tightening and securing the laces. Any water or moisture entering through the slotted opening 26 or the eyeletted apertures 28 is prevented from entering inside the shoe by the gusset 40.

In making a water resistant or water tight shoe embodying our invention, our improved closure and gusset assembly is independently manufactured and assembled and thereafter it is secured around the longitudinal front opening of the upper, thereby providing a water resistant or water tight closure assembly at the front of the upper. The upper and sole are then assembled in the usual manner.

It will be appreciated that modifications may be made in the illustrated and described embodiment of our invention without departing from the invention as set forth in the accompanying claims.

We claim:

1. In a boot or shoe having a sole assembly and an upper secured thereto and formed with an opening at the top and also at the front of the opening to permit the insertion of the foot of the wearer, the improved water resistant closure and gusset assembly which comprises a generally U-shaped blank of flexible material presenting a pair of generally parallel longitudinally extending strips having an interconnecting bottom strip and having a central slotted opening extending from the interconnecting strip to the top of the blank, and a plurality of fastening means formed along the two longitudinal strips adjacent the central slotted opening and having portions extending completely through the strips, and a gusset extending across the slotted opening and the fastening means from the lower end thereof to a point adjacent the upper end and secured to the blank by a continuous water resistant attachment extending from a point adjacent the upper end of one longitudinal strip at the opposite side of the fastening means from the slotted opening downwardly to a point adjacent the lower end thereof across the interconnecting strip and upwardly along the opposite longitudinal strip on the opposite side of the fastening means from the slotted opening to a point adjacent the upper end thereof, said blank having a marginal attaching area for attaching the assembly to the shoe upper extending from the upper end of the two longitudinal strips downwardly across the bottom of the interconnecting strip.

2. In a boot or shoe having a sole assembly and an upper secured thereto and formed with an opening at the top and also at the front of the opening to permit the insertion of the foot of the wearer, the improved water resistant closure and gusset assembly as set forth in claim 3 in which the fastening means comprises a plurality of lacing receiving apertures extending through the longitudinal strips.

3. An improved water resistant closure and gusset assembly for attachment to a boot or shoe of the type having a sole assembly and an upper with a longitudinally extending front opening which comprises a multi-ply, generally U-shaped blank of flexible material presenting a pair of generally parallel longitudinally extending strips having an interconnecting bottom strip and having a central slotted opening extending from the interconnecting strip to the top of the blank and a plurality of fastening means formed along the two longitudinal strips adjacent the central opening and having portions extending completely through the strips, and a gusset extending across the slotted opening and the fastening means from the lower end thereof to a point adjacent the upper end and secured to the blank by a continuous water resistant attachment extending from a point adjacent the upper end of the two longitudinal strips downwardly across the interconnecting strip and positioned on the opposite side

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of the fastening means from the slotted opening, said blank having a marginal attaching area of a lesser number of plies for attaching it to the shoe upper and extending along the outer edges of the longitudinal and inter-connecting strips.

4. An improved water resistant closure and gusset assembly for attachment to a boot or shoe of the type having a sole assembly and an upper with a longitudinally extending front opening as set forth in claim 5 in which the central slotted opening terminates at its lower end in

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a transverse opening which facilitates the folding back of the longitudinally extending strips.

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