July 17, 1962 ATSURO NODA 3,044,189

SHOE WITH GROOVED OUTSOLE TO RECEIVE A FOXING STRIP

Filed June 8, 1959

FIG. 1

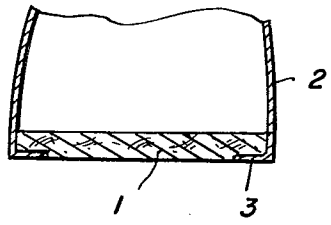


FIG. 4

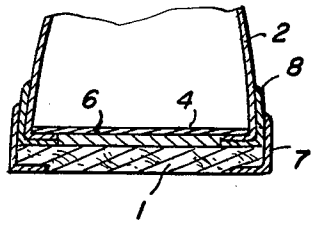


FIG. 2

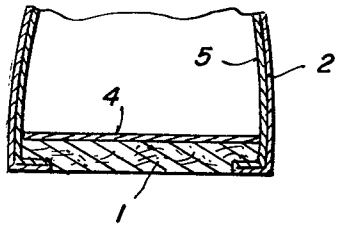


FIG. 5

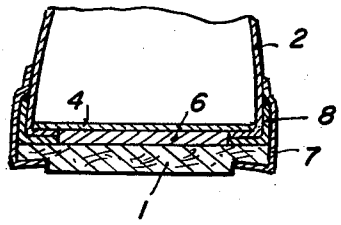


FIG. 3

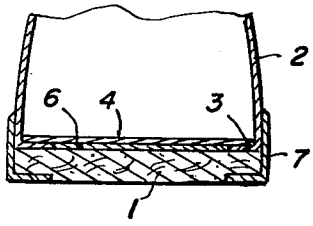
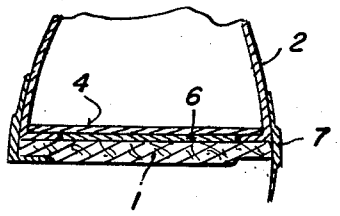


FIG. 6



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SHOE WITH GROOVED OUTSOLE TO RECEIVE A FOXING STRIP

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2 Claims. (Cl. 36—14)

The present invention relates to boot or shoe construction and more particularly to the structure of boot or shoe consisting of a sole provided with a groove along its edge of bottom surface and an upper or a foxing whose edge is lasted over said groove.

When a boot or shoe is made by lasting an upper or a foxing between insole and outsole, the lasted margin of the upper or of the foxing shapes a raised portion. This disadvantage can be prevented by providing a filler of the same thickness as the upper or the foxing between the insole and the outsole, but this needs troublesome procedures such as forming and attaching the filler of the desired shape and thickness etc. And also this method provides a weak boot or shoe as the upper or the foxing is only attached to the sole at the marginal portion of the overface of the sole and these two parts are easily detected by frequent flections during wearing to damage the article in a short time.

In accordance with the present invention, these difficulties and disadvantages to the prior art are overcome and an inexpensive and simple method of procedure is provided. The article of boot or shoe of this invention can be fabricated by forming or molding an outsole provided along its edge of bottom surface with a groove of suitable shape for lasting the lower margin of the upper or of the foxing on the edge of bottom surface of the sole, covering the edge surface of the sole by the upper or the foxing or the lamination of them, and lasting by folding and attaching the edge portion of the upper or the foxing or the lamination of them to the said groove. By this procedure, the upper is securely attached to the sole by a simple process, and as the lasted marginal portion is fixed into the groove to flatten the wearing surface of the sole, the lasted marginal portion would not easily be detached from the sole. Furthermore the boot or shoe of this invention has an additional advantage that when any foreign force is applied to the upper or to the foxing, the force effects to pull up the edge portion of the sole, as the lasting margin is folded and attached to the wearing surface of the sole.

The above and the other advantages of this invention will become further apparent from the following detailed description, reference being made to the accompanying drawing, showing preferred embodiments of the invention, and in which,

FIG. 1 is a vertical sectional view of the boot or shoe showing an embodiment of the invention.

FIG. 2 is a vertical sectional view of a second embodiment of the invention.

FIG. 3 is a vertical sectional view of a third embodiment of the invention.

FIG. 4 is a vertical sectional view of a fourth embodiment of the invention.

FIG. 5 is a vertical sectional view of a fifth embodiment of the invention.

FIG. 6 is a vertical sectional view of a sixth embodiment of the invention.

The article of boot or shoe illustrated in FIG. 1 includes a sole **1** provided with a groove along its edge of bottom surface and an upper **2** whose lower margin **3** is lasted or otherwise secured or attached to said groove by any suitable method such as cementing, nailing and stitching. The margin of the groove may be vertical or inclined.

The article of boot or shoe illustrated in FIG. 2 has the almost same structure as of FIG. 1 and is provided with an insole of a sock lining **4** on the upper surface of the sole **1** and an upper lining **5** on the inner surface of the upper **2**.

The article of boot or shoe illustrated in FIG. 3 is made by lasting the lower margin **3** of the upper **2** on the under surface of the insole or sock lining **4**, attaching the filler **6** and the outsole **1** to the under surface thereof and attaching a flexible foxing **7** on the lower margin of the upper, on the edge surface of the sole **1** and on the groove along the edge of the bottom surface of the sole **1**.

The article of boot or shoe illustrated in FIGS. 4 and 5 are resembled to the same illustrated in FIG. 3. In these articles the attachment of the upper to the sole is reinforced by an ordinal foxing **8** and these structures are suitable for rubber soled canvas shoes etc. This is made by lasting the upper **2** and the foxing **8** on the under face of an insole or sock lining **4**, attaching a filler **6** and the sole **1** thereon, and as well as in the case of FIG. 3, attaching the other foxing **7** on the groove along the edge of the bottom surface of the sole **1**, on the edge surface of the sole **1** and on the first said foxing **8**. In the case of FIG. 4 the higher part of the foxing **8** is exposed and the lower part thereof is covered by the foxing **7**, and by selecting the suitable colors of the upper **2**, the foxing **8** and the foxing **7**, it is also useful to improve the appearance of the article to provide an ornamental design. The article illustrated in FIG. 5 is provided with the foxing **7** covering all the surface of the foxing **8** and extending to the lower part of the upper **2** and provided with the sole with the groove the edge surface whereof is inclined to prevent the detachment of the attached end of the foxing **7** from the sole **1**.

The article of boot or shoe illustrated in FIG. 6 resembles the article shown in FIG. 3 and consists of the foxing **7** with a special shape, namely the upper part of the foxing **7** is thin, the middle part of it is rather thick and the lower part of it is thin and of same thickness as the groove along the edge of the bottom surface of the sole **1**. When using this foxing **7**, a rubber-soled boot or shoe is easily manufactured which has a resembled appearance to a high class welt shoe made by stitching, and the foxing is easily attached to the upper and to the sole as the border line between the thick middle part and the thin lower part is clearly and easily distinguished. Furthermore, when coating different colored rubber latex or rubber cement etc. on the thin higher part only or on the thick middle part only, the boot or shoe of same appearance as the boot or shoe described about FIG. 3 provided with two different-colored foxings is easily manufactured.

It is believed to be apparent that any one of the above-described articles of boot or shoe includes a sole **1** provided with a groove along its edge of bottom surface and an upper **2** and (or) a foxing **7** whose margin is secured to the groove to produce the above-described effects and advantages.

When the foxings etc. are formed with a flexible, resilient, soft material, as its lasting or folded part forms a flat surface with an abrasion-resistant sole **1**, it is prevented to wear away only the soft foxing in the early date during wearing, and furthermore it has an additional effect to prevent skidding.

The sole provided with a groove along its edge of bottom surface is easily prepared by molding etc.

I have herein described the best form of structure I have hitherto devised to carry out my improvements but I desire that it be understood that I am not limited to the specific means recited, but that modifications and alternative means may be employed, without departing from the scope of my invention.

I claim:

1. A boot or shoe construction including, in combination, a sole provided with a groove along the edge of its bottom surface, said groove sloping upwardly and inwardly from the outer edge of the sole, an insole, an upper having an inwardly extending lower margin secured on the under side of said insole, a filler positioned between said insole and said sole, a first foxing attached on the lower part of the upper and on the upper edge surface of said sole, and a second foxing attached on said first foxing and on said groove.

2. The construction defined in claim 1, said second foxing having its upper edge extending above the upper edge of said first foxing and directly secured to said upper.

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