LAST FOR SAFETY SHOES


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4 Claims. (Cl. 12—133)

This invention relates to shoe lasts and pertains more particularly to lasts for shoes of the type incorporating a metal toe box and known as safety shoes.

The last here described is particularly adapted for lasting safety shoes in which the toe is equipped with a formed pad of the type described in my copending application Serial No. 402,053, now abandoned, filed January 4, 1934, which underlies and is bonded to the metal toe box and has a foam rubber strip attached along its rear edge to cushion the rear edge of the metal box. In certain lasts now in use for safety shoes the toe part is recessed to the depth of the metal toe box in the region where the latter seats. It has been found that in lasting shoes of the type described in the aforesaid application, the foam rubber strip tends to tilt the toe box and prevent its seating properly on the last, with the result that the rear edge of the box forms a ridge in the upper. The object of this invention is to provide a last which allows the toe box of such a shoe to seat properly, and produces a smooth exterior, while yet deforming the foam rubber to the necessary degree to maintain a relatively smooth interior, and to fill in the gap between the upper and liner immediately behind the rear edge of the toe box.

In the drawings illustrating the invention:

Fig. 1 is a plan view of a last constructed according to the invention;

Fig. 2 is a side view of the last forepart, somewhat enlarged; and

Fig. 3 is a side view of the forepart of the last, with a shoe in place thereon, the shoe being shown in cross-section.

The last 10 has a recessed toe portion 11, which is cut down from the vamp portion 12 of the last by about the thickness of the metal toe box of the shoe. Between the toe portion and the vamp portion is a groove 13. This groove extends over the top and down the sides of the last. As seen in Fig. 2, the groove has a rear wall 13a which slopes very slightly to the rear. The bottom 13b of the groove slopes downward gradually (or inward at the sides of the last), from the base of wall 13a, to a point of maximum depth 13c, and then curves upward to the forward edge 13d of the groove.

As shown in Fig. 3, and described in my aforesaid application, the toe assembly of the shoe consists of the usual upper 15, upper liner 16, metal toe box 17, a pyroxylin pad 18 disposed between the box and the liner, and a pyroxylin cover 19 disposed between the box and the upper. A foam rubber strip 20 is attached to pad 18 and underlies its rear edge as well as the rear edge of the toe box.

When the shoe is placed on the upper, the rear edge of the toe box 17 overlies the region of maximum depth 13c of the groove all around, and the foam rubber strip 20 seats in the groove. The strip is substantially unstrained in the region immediately under the rear edge of the toe box so that the latter seats properly on the toe portion of the last. Due to the shape of the bottom wall of the groove, the forward edge of the strip is compressed so that the liner curves upward toward the front, and the rear part of the strip is deformed upward to fill in the space behind the rear edges of the toe box and the pyroxylin pad and cover. It will be noted that the contour of the upper is smooth and unbroken. The assembled upper is softened with an appropriate solvent before placing on the last and the pyroxylin layers become bonded to the upper, box, and liner as the shoe dries. The forepart of the finished shoe will retain the contour imparted by the last.

What is claimed is:

1. In a last for safety shoes of the type having a toe box assembly including a metal toe box with a rear edge disposed across the vamp and a foam rubber strip underlying said rear edge, a last forepart having a groove of the width of said strip running transversely across the top and down the sides of the forepart to the feather line of the last and disposed to receive the strip when a shoe is placed on the last.

2. A last forepart as described in claim 1, the groove having a rear wall of a height approximately equal to the thickness of the toe box assembly, a forward edge, and a bottom wall sloping gradually inward from the base of said wall to a region of maximum depth, and then curving outward to said forward edge, the region of maximum depth being disposed to underlie the rear edge of the toe box when the latter is in place on the last.

3. In a last, for safety shoes of the type having a toe box assembly including a metal toe box with a rear edge disposed across the vamp and a foam rubber strip underlying said rear edge, a last forepart having a vamp portion and a toe portion, the latter having an outer surface offset inward from the corresponding surface of the vamp by a dimension corresponding to the thickness of the toe box assembly, and a groove, of a width approximately equal to that of the strip, running transversely across the top and sides of the forepart between the vamp and toe portions, the groove being disposed to receive the strip when a shoe is placed on the last.

4. A last forepart as described in claim 3, the groove having a rear wall of a height equal to said dimension, and a bottom wall sloping gradually inward from the base of said rear wall to a region of maximum depth and then outward to the surface of said toe portion, the region of maximum depth being disposed to underlie the rear edge of the toe box when the latter is in place on the last.

References Cited in the file of this patent

FOREIGN PATENTS

297,708 Great Britain — Sept. 25, 1928