March 17, 1942. H. CHEVALIER 2,276,686

WELT FOOTWEAR

Filed July 6, 1939

Fig. 1.

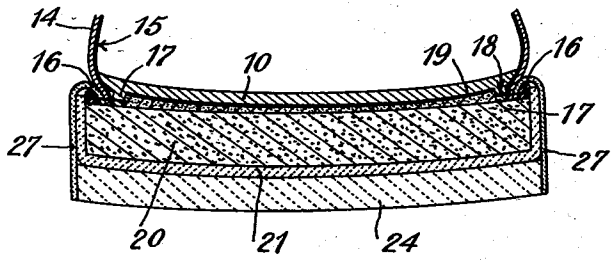
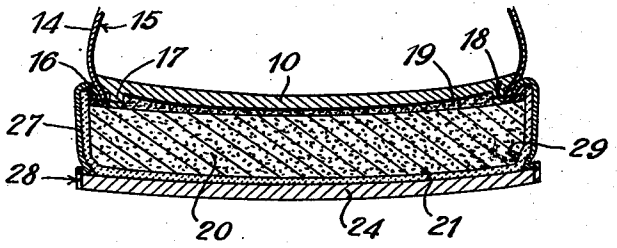


Fig. 2.



INVENTOR:
HENRI CHEVALIER
BY: Haseltine, Lake & Co.
ATTORNEYS

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WELT FOOTWEAR

Henri Chevalier, Romans, Drome, France, assignor to Chaussures Unic-Usines Fenestrier Société Anonyme, Romans, Drome, France, a corporation of France

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2 Claims. (Cl. 36—14)

This invention relates to a welt boot or shoe whose sole and/or heel are formed in part of one or several comparatively thick layers of cork, whether naturally unitary or agglomerated, which is, of course permeable to air.

According to this invention, said layer or layers are covered on their under surface and on their sides by an enveloping sheet made of a flexible water-proof material, for example crêpe rubber, moreover a band made of a flexible material, for example crêpe rubber, is sewn between the welt and the upper, is bent over the edges of the sole and/or of the heel and is fixed to a wearing layer made of a resistant material.

Cork, preferably natural cork, has been recognized among a great number of light and isolating materials as being the best for use in the manufacture of boots or shoes, this due to its lightness, permeability to air and isolating and moisture absorbing properties.

The boot or shoe according to the invention has the advantages of being light, isothermic in effect, that is to say the plantar surface of the foot is protected against variations in outside temperature and the foot is kept at its normal temperature both in cold and in hot weather, of being waterproof while yet being permeable to air and of being flexible. All these advantages render it particularly hygienic and agreeable to wear.

Moreover, this boot or shoe, whose sole is thick can be manufactured in elegant models.

Figs. 1 and 2 of the accompanying drawing are cross-sections through two different embodiments of the sole of a boot or shoe according to the invention.

Reference being had to Fig. 1, the boot or shoe shown comprises an inner sole **10**, made for example of leather. The upper (boot or shoe) **14** and its lining **15**, as well as the welt **16** and a band **27** of crêpe rubber, are sewn to the rib **17** round this inner sole, the seam being indicated at **18**. A padding **19** fills the empty space between the inner sole and the sole properly so called.

The latter is in several layers. The layer **20** is made of cork and the wearing layer **24** of crêpe rubber. A sheet **21** of crêpe rubber covers the under surface and the sides of the layer **20** by stretching between the latter and the band **27** of crêpe rubber. The latter is stuck or cemented to the wearing layer **24**.

The layer **20** is preferably made of several pieces which are distributed over the whole length of the sole, in order to give it flexibility. These different pieces which are inter-articulated are held together by the flexible sheet **21**. The sole is thus flexible, although it is thick.

In the embodiment of Fig. 2, the arrangement of the parts **14**, **15**, **16**, **17** and **18** and **21** is the same as in Fig. 1. The layer **20** is made of cork, the wearing layer **24** of leather. The latter is sewn to the band **27** made of skin (which could also be made of crêpe rubber, canvas, etc.) by means of a seam **28**, the band **27** is stuck or cemented to the layer **21**, the layer **20** being bevelled at **29** for facilitating this sewing.

According to a modification of this latter embodiment, the seam **28** instead of being parallel with the edge of the sole, can form an angle therewith, and this avoids the necessity of providing the bevel **29**: the seam **28** being sewn on the bias, from the outside of the band **27** to the under surface of the layer **24**.

Due to the use of sheet **21** and to the band **27**, both made of impermeable material, no outside humidity can reach the layer of cork **20**.

It is thus clear that the boot or shoe according to the invention while yet being impermeable, is isothermic and light due to the presence of the cork in its sole. Moreover it is resistant: in fact even if the cork **20** happens to break, the pieces formed will keep their respective places with regard to each other, for they are firmly enveloped by the sheet **21**, which can be slightly under tension.

Having now fully described my invention, I claim:

1. A welt foot-wear which in at least one of the two portions thereof including the sole and heel portions comprises a thick layer of cork, a flexible sheet of water-proof material enveloping said cork on its under surface and on its sides, a wearing layer of a wear resistant material disposed under or below the flexible sheet, and a band of flexible material sewn between the welt and the upper, and bent over the edges of said portion and also fixed to the wearing layer.

2. A welt foot-wear which in at least one of the two portions thereof including the sole and heel portions comprises a thick layer of natural cork, a flexible sheet of crêpe rubber enveloping said cork on its under surface and on its sides, a wearing layer of a wear resistant material disposed under or below the flexible sheet, and a band of crêpe rubber sewn between the welt and the upper, bent over the edges of said portion and also fixed to the wearing layer.

HENRI CHEVALIER.