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(54) **Improved work shoe**

Verbesserte Arbeitsschuhe
Chaussures de travail améliorées

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(56) References cited:
DE-A1- 4 332 606 DE-U1- 8 713 871
US-A- 5 452 525

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Description

[0001] The present invention relates to an improved work shoe.

[0002] More particularly, the invention relates to a work shoe specifically conceived to permit a marked improvement in safety conditions, as well as in comfort, for the benefit of the wearer.

[0003] In recent years increasing attention has been focused on workplace safety and comfort.

[0004] Work shoes may without doubt be included among the products used in the sector of safety.

[0005] DE 43 32 606 A discloses a shoe with two insole layers, an anti-perforation layer and a hygroscopic substance positioned in recess of the outsole.

[0006] Fitting into this context is the solution proposed according to the present invention, which relates in particular to an improved work shoe.

[0007] Thus it is a specific object of the present invention to propose a work shoe comprising a shoe part fitted on the interior with a first insole layer, an anti-perforation layer and a second insole layer, said shoe being characterised in that said anti-perforation layer is incorporated within the first insole layer, that said first insole layer includes, in the heel portion, a space designed to hold substances, a recess being provided accordingly in said shoe portion, and that said second insole layer includes a perforated zone in a position corresponding to said space designed to hold substances.

[0008] Preferably, according to the invention, said substances consist in hygroscopic salts.

[0009] Further according to the invention, said second insole layer comprises a gel base in the zone where the wearer rests his or her heel.

[0010] In particular, said gel base has a horseshoe configuration.

[0011] Again according to the invention, said anti-perforation layer is incorporated into the first insole layer by being inserted in the insole forming die.

[0012] The present invention shall now be described for illustrative, non-restrictive purposes, according to the preferred embodiments thereof, with particular reference to the appended drawings, in which:

figure 1 shows a first detail of a work shoe according to the invention;

figure 2 shows a second detail of a work shoe according to the invention; and

figure 3 shows a further detail of the work shoe according to the invention.

[0013] Referring now to the figures in the appended drawings, and starting off from figure 1 in particular, one may observe a first insole layer, generically denoted by the numerical reference 1, of the work shoe, generically denoted in figure 2 by the numerical reference 2, which includes an anti-perforation layer 3, directly inserted during the insole die-forming process, and substantially in-

corporated within the first insole layer 1. As a result, in the rear part of the first insole layer 1 a space 4 may be created to hold a packet (not shown in figure 1) containing hygroscopic salts.

[0014] A corresponding recess 5 is formed in the shoe 2 (see figure 2) on which the first insole layer 1 is to be applied, the packet 6 for hygroscopic salts being placed therein.

[0015] Positioned superiorly to the first insole layer 1 is the second insole layer 7, which displays different innovative features, as shown in figure 3.

[0016] In the rear part of the second insole layer 7 a perforated zone 8 is provided in a position corresponding to that of the packet 6 for hygroscopic salts, in order that the properties of the salts may be optimally exploited and, in particular, in order that they may perform their dehumidifying action through the holes.

[0017] Also provided on the rear part of the second insole layer 7 is a gel base 9, upon which the wearer's heel rests, with all the benefits arising from the shock absorption obtained with gel layers.

[0018] The gel base 9 has a particular horseshoe shape, which allows the heel to rest upon a snug-fitting and comfortable surface, remaining suspended in the middle part; this provides a benefit, for example, for those who suffer from calcaneal spur.

[0019] The present invention has been described for illustrative, non-restrictive purposes, according to the preferred embodiments thereof, but it is understood that variants and/or changes may be introduced by experts in the art without departing from the scope of protection, as defined by the appended claims.

Claims

1. Work shoe comprising a shoe part, fitted on the interior with a first insole layer, an anti-perforation layer and a second insole layer, said shoe being **characterised in that** said anti-perforation layer is incorporated within the first insole layer, that said first insole layer includes, in the heel portion, a space designed to hold substances, a recess being provided accordingly in said portion of the shoe, and that said second insole layer includes a perforated zone in a position corresponding to said space designed to hold substances.
2. Work shoe according to claim 1, **characterised in that** said substances consist in hygroscopic salts.
3. Work shoe according to claim 1 or 2, **characterised in that** said second insole layer comprises a gel base in the zone where the wearer rests his or her heel.
4. Work shoe according to claim 3, **characterised in that** said gel base has a horseshoe configuration.

5. Work shoe according to one of the previous claims, **characterised in that** said anti-perforation layer is incorporated within the first insole layer by being inserted in the insole forming die.

Patentansprüche

1. Arbeitsschuh mit einem Schuhteil, angepasst an das Innere, mit einer ersten Innensohlschicht, einer Anti-Perforationsschicht und einer zweiten Innensohlschicht, wobei der Schuh **dadurch gekennzeichnet ist, dass** die Anti-Perforationsschicht in die erste Innensohlschicht eingefügt ist, dass die erste Innensohlschicht im Fersenabschnitt einen Raum umfasst, gestaltet, um Substanzen zu halten, wobei eine Aussparung entsprechend vorgesehen ist in dem Abschnitt des Schuhs, und dass die zweite Innensohlschicht eine perforierte Zone umfasst in einer Position entsprechend dem Raum, der gestaltet ist, um Substanzen zu halten. 20
2. Arbeitsschuh gemäß Anspruch 1, **dadurch gekennzeichnet, dass** die Substanzen in hygroskopischen Salzen bestehen. 25
3. Arbeitsschuh gemäß Anspruch 1 oder 2, **dadurch gekennzeichnet, dass** die zweite Innensohlschicht eine Gelbasis in der Zone umfasst, wo der Träger seine oder ihre Ferse aufsetzt. 30
4. Arbeitsschuh gemäß Anspruch 3, **dadurch gekennzeichnet, dass** die Gelbasis eine Hufeisenkonfiguration aufweist. 35
5. Arbeitsschuh gemäß einem der vorhergehenden Ansprüche, **dadurch gekennzeichnet, dass** die Anti-Perforationsschicht eingefügt ist in die erste Innensohlschicht mittels Einsatz in die Innensohlenformwerkzeug. 40

Revendications

1. Chaussure de travail, comprenant une partie de 45
chaussure, munie à l'intérieur d'une première couche de première, d'une couche anti-perforation et d'une deuxième couche de première, ladite chaussure étant **caractérisée en ce que** ladite couche anti-perforation est incorporée à l'intérieur de la première couche de première, **en ce que** ladite première couche de première comprend, dans la partie de talon, un espace conçu pour renfermer des substances, une cavité étant disposée en conséquence dans ladite partie de la chaussure, et **en ce que** ladite 50
deuxième couche de première comprend une zone perforée dans une position correspondant audit espace conçu pour renfermer des substances. 55

2. Chaussure de travail selon la revendication 1, **caractérisée en ce que** lesdites substances sont constituées par des sels hygrosopiques.

- 5 3. Chaussure de travail selon la revendication 1 ou 2, **caractérisée en ce que** ladite deuxième couche de première comprend une base de gel dans la zone où la personne repose son talon.

- 10 4. Chaussure de travail selon la revendication 3, **caractérisée en ce que** ladite base de gel a une configuration en fer à cheval.

- 15 5. Chaussure de travail selon l'une des revendications précédentes, **caractérisée en ce que** ladite couche anti-perforation est incorporée à l'intérieur de la première couche de première du fait qu'elle est insérée dans la matrice de formation de première.

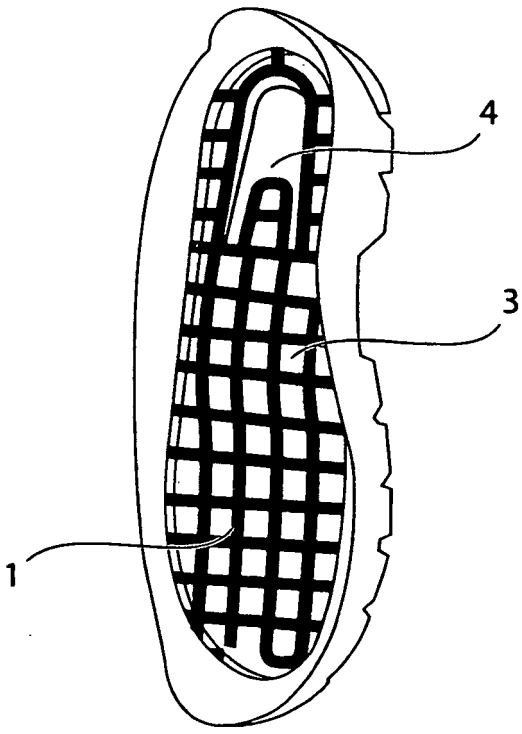


Fig. 1

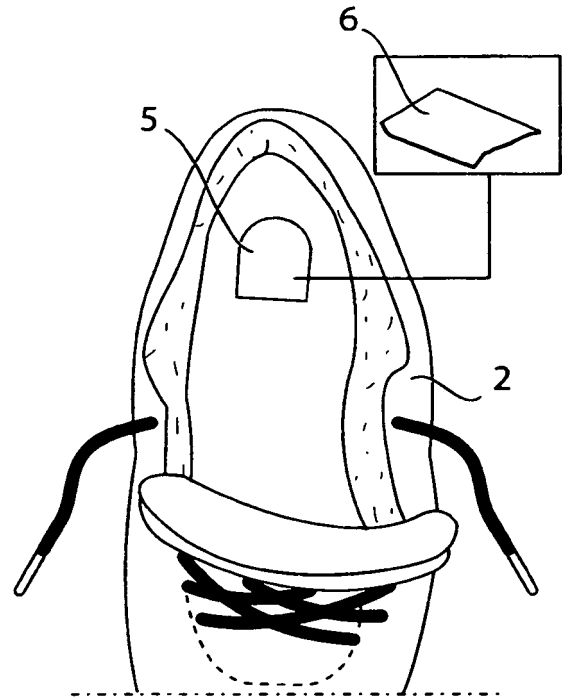


Fig. 2

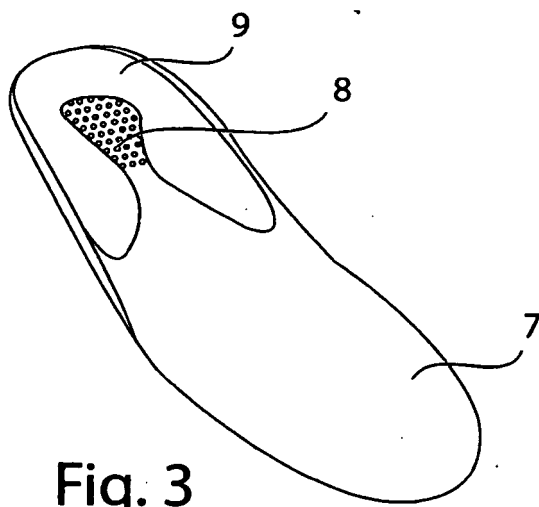


Fig. 3

REFERENCES CITED IN THE DESCRIPTION

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Patent documents cited in the description

- DE 4332606 A [0005]