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Bier et al.

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(54) **VENTILATING SOLE ELEMENT FOR A SHOE AS WELL AS SOLE ASSEMBLY AND WATERPROOF, BREATHABLE SHOE COMPRISING THE SAME**

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(58) **Field of Classification Search**

CPC *A43B 7/06*; *A43B 7/08*; *A43B 7/087*; *A43B 7/088*; *A43B 7/125*

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(57) **ABSTRACT**

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A ventilating sole element (173) for a shoe according to the present invention comprises a side wall (608). A channel structure (178) is formed in the ventilating sole element (173) that comprises a plurality of channels (181, 183, 184). At least some of the lateral ends of said channels (181, 183, 184) are formed as air and moisture discharging ports (182), and at least one of the channels (181, 183, 184) is a peripheral channel (183) that intersects with a plurality of channels (181, 184). The channels (181, 183, 184) and the side wall (608) form functional pillars (400, 401); and said ventilating sole element (173) has a ratio of top surface area (A_p) of the functional pillars (400, 401) to top surface area (A_c) of the channels (181, 183, 184) between 0.5 and 5.

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38 Claims, 20 Drawing Sheets

