

Title (en)  
ELECTROSTATIC SPRAY DEVICE FOR COATING POWDER

Publication  
**EP 0236794 B1 19910102 (DE)**

Application  
**EP 87102178 A 19870216**

Priority  
• DE 3608415 A 19860313  
• DE 3608426 A 19860313

Abstract (en)  
[origin: US4788933A] A spraying device for spraying powdered material on an article includes an axially extending powder channel formed in the body of the spraying device which has an upstream region and a downstream end. The material flows out through a spraying opening located at the downstream end. A support extends from the spraying opening, upstream into the powder channel. The support defines a gas channel therein. A plurality of gas outlet orifices, located near the spraying opening, connect the gas channel to the powder channel. The orifices are inclined obliquely in the downstream direction. Electrical electrodes, connected to a high voltage, extend into the orifices and reach to or just beyond the orifices, into the powder channel. The axial distance from the tip of the electrodes to the spraying opening should be about equal to the diameter of the powder channel or according to an alternate embodiment about one half the diameter. The gas flowing past the electrodes picks up and carries electrical charges from the electrodes into the powdered material and further prevents settling of a powdered material on the electrodes.

IPC 1-7  
**B05B 5/03**

IPC 8 full level  
**B05B 5/025** (2006.01); **B05B 5/03** (2006.01)

CPC (source: EP US)  
**B05B 5/032** (2013.01 - EP US)

Cited by  
EP3892384A1; DE4141663A1; US5482214A; CN104245147A; US10150123B2; US11925952B2; WO2013154696A1; EP2836308B1

Designated contracting state (EPC)  
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**EP 0236794 A2 19870916; EP 0236794 A3 19880831; EP 0236794 B1 19910102**; ES 2019888 B3 19910716; JP H0673644 B2 19940921; JP S6323762 A 19880201; US 4788933 A 19881206

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**EP 87102178 A 19870216**; ES 87102178 T 19870216; JP 5641787 A 19870310; US 2347887 A 19870309