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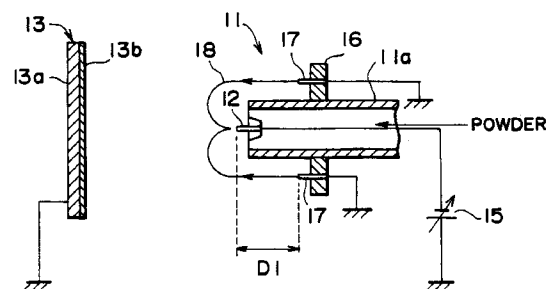
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(54) Method and apparatus for electrostatic powder coating

(57) An electrostatic powder coating method whereby free ions in the vicinity of a spray gun (30) are trapped and the fine powder, which has a particle diameter of 25 μm or less, is electrostatically charged and applied to the surface of an electrically grounded object (13) to be coated. An electrostatic powder coating apparatus which is equipped with an electrostatic gun for electrostatically charging fine powder, which has a particle diameter of 25 μm or less, and spraying the charged fine powder to the surface of the electrically grounded object to be coated, and a free ion trapping device (16) for trapping free ions near the electrostatic gun.

FIG. 2



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EUROPEAN SEARCH REPORT

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DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.6)
X	DE-U-93 05 642 (GEMA)	10-12, 20,24	B05B5/053 B05B5/047 B05B5/03
A	* page 1, paragraph 2 * * page 7, last paragraph - page 9, paragraph 2; figure 2 * ---	1,13-16	
X	US-A-4 921 172 (BELMAIN ET AL.)	10,11	
A	* abstract; figure 1 * ---	18,22	
X	FR-A-2 693 923 (SAMES) * abstract; figures 1-3 *	10	
A	EP-A-0 547 397 (WAGNER) * the whole document * -----	16	
			TECHNICAL FIELDS SEARCHED (Int.Cl.6)
			B05B
The present search report has been drawn up for all claims			
Place of search THE HAGUE		Date of completion of the search 16 October 1996	Examiner Guastavino, L
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document			

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