

12 **EUROPEAN PATENT APPLICATION**

21 Application number: **87303098.5**

51 Int. Cl.⁴: **B05B 5/04**

22 Date of filing: **09.04.87**

30 Priority: **18.04.86 US 853746**
13.02.87 US 14450

43 Date of publication of application:
28.10.87 Bulletin 87/44

84 Designated Contracting States:
CH DE FR GB LI SE

88 Date of deferred publication of the search report:
12.10.88 Bulletin 88/41

71 Applicant: **NORDSON CORPORATION**
555 Jackson Street P. O. Box 151
Amherst Ohio 44001(US)

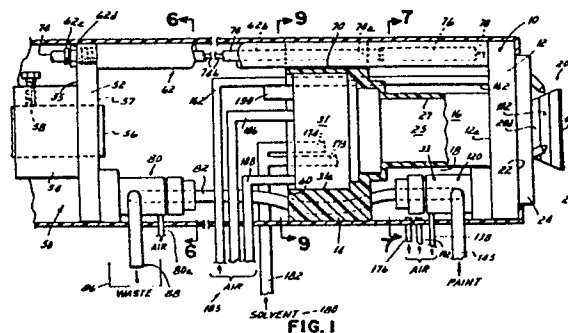
72 Inventor: **Wacker, Robert L.**
125 Pleasant Street
Wellington, Ohio 44090(US)
Inventor: **Sharpless, John**
11643 Vermilion Road
Oberlin, Ohio 44074(US)
Inventor: **Murphy, James C.**
3409 Elmbrook Drive
Broadview Heights, Ohio 44147(US)
Inventor: **Shuster, Donald E.**
416 Longfellow
Elyria, Ohio 44035(US)
Inventor: **Knobbe, Alan J.**
675 Appleseed Drive
Lorain, Ohio 44053(US)

74 Representative: **Allen, Oliver John Richard et al**
Lloyd Wise, Tregear & Co. Norman House
105-109 Strand
London, WC2R 0AE(GB)

54 **Electrostatic rotary atomizing liquid spray coating apparatus.**

57 An electrostatic liquid spray coating apparatus including a rotary cup (20) driven by an air turbine (31) is provided with a ring-shaped electrode (46) embedded in the inner surface of the cup. A support body (10), housing a turbine (31), has a reduced diameter intermediate section (16) in which are located liquid coating-and solvent valves. The support body (10) is mounted to a rear bracket by insulative columns (62, 64, 66) one of which accommodates a high voltage cable (74) connected to a stationary conductor which terminates in proximity to a semi-conductive ring (102) connected to the electrode (46) by pins (104). A dump valve (80) is mounted on the bracket. In an alternate embodiment the support body has a cap (400) in which the rotary cup (20) is recessed. A ring of jets (28) for projecting and shaping

ing air flow and a repulsion ring (470) surrounds the cup (20).



EP 0 243 043 A3



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. 4)
D,X	US-A-4 576 827 (NORDSON CORP.) * Column 13, line 39 - column 14, line 29; figure 6 *	1	B 05 B 5/04
A	---	3,4	
A	WO-A-8 501 455 (GRACO) * Page 5, line 24 - page 6, line 6; page 7, lines 7-18; page 8, line 16 - page 9, line 21; page 12, line 28 - page 14, line 18; figure 2 *	1,3,4	
A	FR-A-1 547 354 (WALLIS) * Page 2, right-hand column, lines 6-12; figures 1,2 *	7,9,10	
			TECHNICAL FIELDS SEARCHED (Int. Cl. 4)
			B 05 B
The present search report has been drawn up for all claims			
Place of search THE HAGUE		Date of completion of the search 26-07-1988	Examiner JUGUET J.M.
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	