



(12) **EUROPEAN PATENT APPLICATION**

(88) Date of publication A3:
13.08.2003 Bulletin 2003/33

(51) Int Cl.7: **B05B 7/24**, B05D 1/04,
B05D 1/06, B05B 5/04,
B05B 5/08

(43) Date of publication A2:
21.03.2001 Bulletin 2001/12

(21) Application number: **00119846.4**

(22) Date of filing: **12.09.2000**

(84) Designated Contracting States:
AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU
MC NL PT SE
Designated Extension States:
AL LT LV MK RO SI

(72) Inventors:
• **Takeda, Koichi**
Nishimurayama-gun, Yamagata (JP)
• **Maruyama, Haruji**
Ojiya-shi, Niigata (JP)

(30) Priority: **17.09.1999 JP 26312499**

(74) Representative: **Zimmermann, Gerd Heinrich et al**
Zimmermann & Partner,
P.O. Box 33 09 20
80069 München (DE)

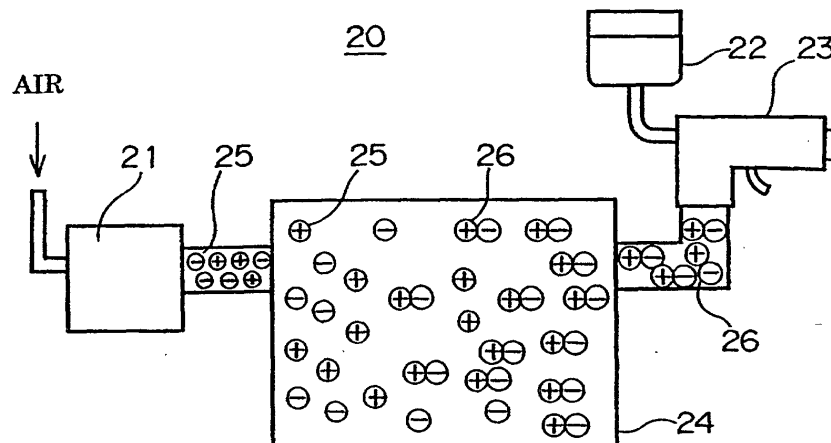
(71) Applicants:
• **Himu Electro Co., Ltd.**
Ojiya-shi, Niigata (JP)
• **Takeda, Koichi**
Nishimurayama-gun, Yamagata (JP)

(54) **Painter and method of painting**

(57) There is provided a painter (20) including (a) a static eraser (21) which removes static electricity from air, (b) a tank (22) containing a paint therein, and (c) a spray gun (23) which mixes the paint with air supplied from the static eraser (21), and sprays the paint to an object, characterized by (d) a device (24) located between the static eraser (21) and the spray gun (23)

which device retains air therein, wherein positively or negatively charged ionized air (25) supplied from the static eraser (21) is retained in the device (24), positively charged ionized air is mixed with negatively charged ionized air in the device (24), and electrically neutral air (26) is supplied from the device (24) to the spray gun (23).

FIG. 3





European Patent
Office

EUROPEAN SEARCH REPORT

Application Number
EP 00 11 9846

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.7)
A	US 3 786 309 A (MIOTTEL N) 15 January 1974 (1974-01-15) * abstract * * column 3, line 15-36 * ---	1,5	B05B7/24 B05D1/04 B05D1/06 B05B5/04 B05B5/08
A	US 4 836 137 A (KURZ HELMUT ET AL) 6 June 1989 (1989-06-06) * abstract * ---	1	
A	EP 0 435 035 A (BALL CORP) 3 July 1991 (1991-07-03) * column 2, line 65 - column 3, line 8 * -----	1	
			TECHNICAL FIELDS SEARCHED (Int.Cl.7)
			B05B B05D
The present search report has been drawn up for all claims			
Place of search MUNICH		Date of completion of the search 23 June 2003	Examiner Eberwein, M
<p>CATEGORY OF CITED DOCUMENTS</p> <p>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</p> <p>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</p>			

EPO FORM 1503 03.82 (P04C01)

**ANNEX TO THE EUROPEAN SEARCH REPORT
ON EUROPEAN PATENT APPLICATION NO.**

EP 00 11 9846

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report.
The members are as contained in the European Patent Office EDP file on
The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

23-06-2003

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
US 3786309	A	15-01-1974	NONE	

US 4836137	A	06-06-1989	DE 3631270 A1	24-03-1988
			AT 70999 T	15-01-1992
			EP 0260539 A2	23-03-1988
			ES 2029247 T3	01-08-1992
			JP 1951264 C	10-07-1995
			JP 6077704 B	05-10-1994
			JP 63077563 A	07-04-1988

EP 0435035	A	03-07-1991	US 5032422 A	16-07-1991
			AU 635582 B2	25-03-1993
			AU 6689090 A	04-07-1991
			BR 9006046 A	24-09-1991
			CA 2028370 A1	27-06-1991
			EP 0435035 A1	03-07-1991
			JP 4298265 A	22-10-1992
			MX 167119 B	04-03-1993
