



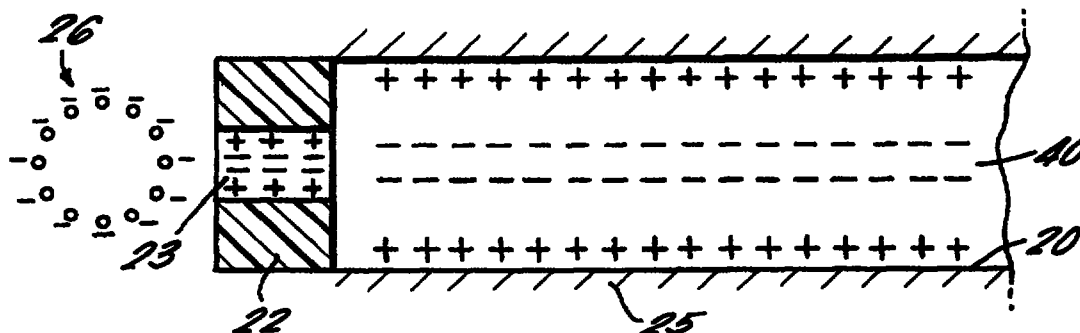
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(21) International Application Number: PCT/GB98/01898 (22) International Filing Date: 29 June 1998 (29.06.98) (30) Priority Data: <table border="0"> <tr> <td>9714231.9</td> <td>4 July 1997 (04.07.97)</td> <td>GB</td> </tr> <tr> <td>9722611.2</td> <td>28 October 1997 (28.10.97)</td> <td>GB</td> </tr> <tr> <td>9806133.6</td> <td>24 March 1998 (24.03.98)</td> <td>GB</td> </tr> </table> (71) Applicants (for all designated States except US): UNIVERSITY OF SOUTHAMPTON [GB/GB]; Highfield, Southampton SO17 1BJ (GB). RECKITT & COLMAN PRODUCTS LIMITED [GB/GB]; 67 Alma Road, Windsor, Berkshire SL4 3HD (GB). (72) Inventors; and (75) Inventors/Applicants (for US only): FOX, Rodney, Thomas [GB/GB]; 30 South Street, Cottingham, Hull HU16 4AS (GB). HARRISON, Neale, Mark [GB/GB]; 27 Cronwell Close, Tutbury, Burton-on-Trent DE13 9HZ (GB). HUGHES, John, Farrell [GB/GB]; 2 Shepherds Close, Bartley, Southampton SO40 2LJ (GB). WHITMORE, Lindsey, Faye [GB/GB]; 60 Pees Farm Road, Colden Common, Winchester SO21 1UG (GB).	9714231.9	4 July 1997 (04.07.97)	GB	9722611.2	28 October 1997 (28.10.97)	GB	9806133.6	24 March 1998 (24.03.98)	GB	(74) Agent: BOULT WADE TENNANT; 27 Fumival Street, London EC4A 1PQ (GB). (81) Designated States: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, GW, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, ARIPO patent (GH, GM, KE, LS, MW, SD, SZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG). Published With international search report.
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(54) Title: IMPROVED TARGETING OF FLYING INSECTS WITH INSECTICIDES AND APPARATUS FOR CHARGING LIQUIDS



(57) Abstract

A method of killing flying insects which method comprises spraying into the air in which insects are flying liquid droplets of an insecticidal composition, a unipolar charge being imparted to the said liquid droplets by double layer charging and charge separation during spraying, the unipolar charge being at a level such that the said droplets have a charge to mass ratio of at least $\pm 1 \times 10^{-4}$ C/kg. An aerosol spray device which is capable of imparting a unipolar charge by double layer charging and charge separation to liquid droplets of a composition sprayed therefrom has a spraying head in the form of an insert in an actuator, the spraying head having a bore through which liquid is expelled having an outlet, preferably with a tortuous periphery, having an L/a ratio of at least 8, where L is the length of the periphery defining the bore outlet in mm and a is the cross-sectional area of the bore outlet in mm^2 and the apparatus being constructed such that the droplets are expelled from the spraying head at a flow ratio of at least 0.5 grams per second and have a charge to mass ratio of at least $\pm 1 \times 10^{-4}$ C/kg.