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Nozzle attachment for an adhesive spray gun.

An apparatus for spraying heated hot melt adhesive in elongated strands or fibers in a controlled, spiral pattern upon a substrate comprises a spray gun (10) having a nozzle (14) formed with an adhesive delivery passageway (56) and an air delivery passageway (94) both of which terminated at the base of the nozzle (14). A nozzle attachment (18) in the form of a one-piece annular plate is mounted to the base of the nozzle (14) by a cap (62). The annular plate (18) is formed with a throughbore (110) which receives hot melt adhesive from the adhesive delivery passageway (56) and ejects an adhesive bead through a nozzle tip (108) formed on the outer side of the plate (18) opposite the nozzle (14). An annular groove (94) formed in the outer side of the plate (18) facilitates drilling of air jets bores (118) therein at an angle relative to the throughbore and adhesive bead ejected therefrom. The air jet bores (118) receive pressurized air from the air delivery passageway (94) in the nozzle (14) and direct jets of pressurized air substantially tangent to the adhesive bead to form elongated adhesive fibers and to impart a spiral motion to the elongated fibers so that they are formed in a compact spray pattern for deposition onto a substrate.

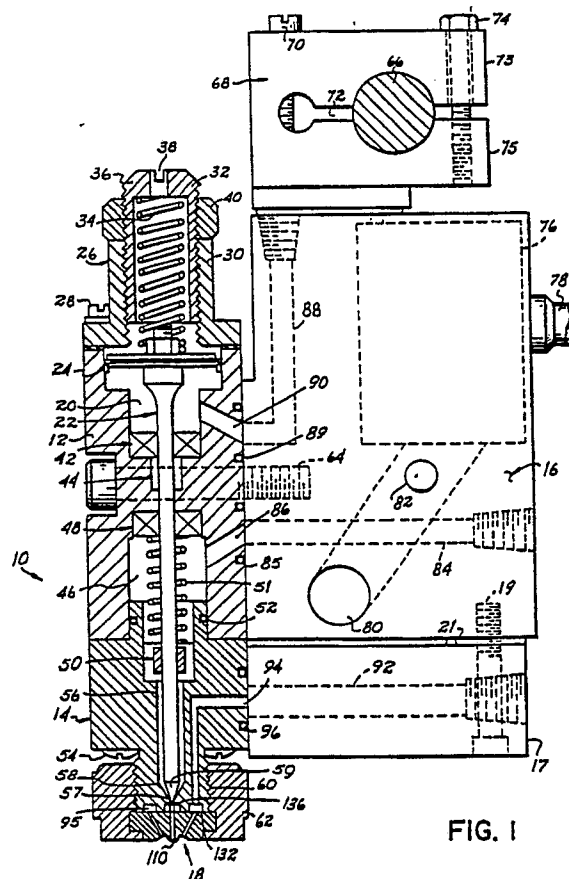


FIG. 1

EP 0 367 985 A3



DOCUMENTS CONSIDERED TO BE RELEVANT			EP 89118357.6
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int Cl ⁸)
Y	<u>EP - A1 - 0 333 902</u> (CLAASSEN) * Totality * ---	1	B 05 B 7/16 B 05 C 5/04
Y	<u>GB - A - 1 587 898</u> (SKM) * Totality * ---	1	
A	<u>WO - A1 - 81/01 670</u> (AMIAUT) * Abstract * ---	1	
A	<u>EP - A2 - 0 222 379</u> (CLAASSEN) * Abstract * ---	1	
A	<u>DE - A1 - 2 553 664</u> (AIRPRINT SYSTEMS INC) * Claims; fig. * ---	1	
D,A	<u>US - A - 3 152 923</u> (MARSHALL & ULLMAN) * Claims; fig. 4,5 * ---	1	TECHNICAL FIELDS SEARCHED (Int Cl ⁸)
D,A	<u>US - A - 4 185 981</u> (NIPPON SHEET GLASS CO) * Abstract; fig. 31a,b, fig. 36a,b * -----	1	B 05 B B 05 C
The present search report has been drawn up for all claims			
Place of search VIENNA		Date of completion of the search 30-05-1990	Examiner SCHÜTZ
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	