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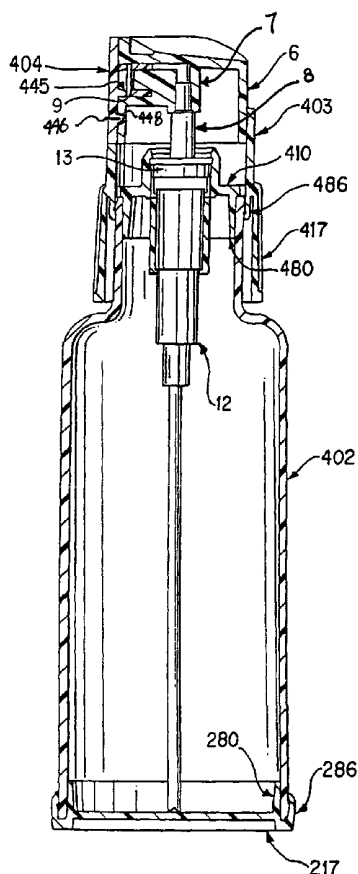
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B65D 83/16 [US/US]; 4925 Park Ridge Boulevard, Boynton Beach, FL 33426 (US).
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[US/US]; 2770 South Ocean Boulevard, Palm Beach, FL 33480 (US).
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(54) Title: SPRAY DISPENSING DEVICE WITH NOZZLE CLOSURE



(57) Abstract: In accordance with embodiments of the present invention, an apparatus includes an actuator with a spray nozzle and an opening adjacent the spray nozzle. The actuator dispenses spray through the spray nozzle when the actuator is depressed to operate a pump or an aerosol valve. A wall including the spray opening at least partially surrounds the actuator and the spray nozzle is aligned with the spray opening during dispensing whereby spray exiting the spray nozzle passes through the spray opening. Also included is a nozzle closure, with a first projection (445) and a second projection (446). The first projection (445) fits into the opening adjacent the spray nozzle thereby sealing the spray nozzle. The nozzle closure has a hinge allowing pivotal movement of the nozzle closure from a closed position, at which the first projection fits into the opening in the wall adjacent the spray nozzle, and the nozzle closure closes the spray opening, to an open position, where the spray opening is open to permit the spray to pass through the spray opening when the actuator is depressed. The second projection (446) is placed on the closure between the hinge and the first projection and fits in a recess (448) in the actuator, engaging the recess when the nozzle closure is in a closed position and preventing actuation of the actuator when the nozzle closure is closed. When in the closed position, a degree of opening resistance between the nozzle closure and the wall or actuator may provide a measure of child-resistance. A removable tab may be included to provide evidence of tampering with the nozzle closure. A spring may also be included to outwardly bias the actuator and provide the proper alignment between the first and second projections and the opening and recess, respectively.



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INTERNATIONAL SEARCH REPORT

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A. CLASSIFICATION OF SUBJECT MATTER
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According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

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Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, PAJ

C. DOCUMENTS CONSIDERED TO BE RELEVANT

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A	US 6 016 939 A (GUERET JEAN-LOUIS H) 25 January 2000 (2000-01-25) column 13, line 7 - line 19; figures 26-28 ---	1,6,9,14
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☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

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G document member of the same patent family

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Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2
NL - 2280 HV Rijswijk
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,
Fax: (+31-70) 340-3016

Authorized officer

Brévier, F

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