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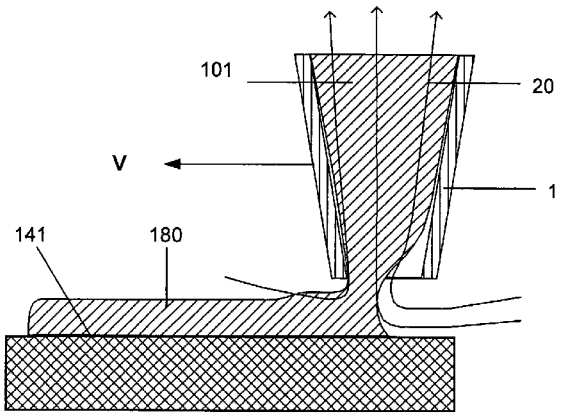
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(54) Title: A DEVICE CONSTITUTING A POWDER AIR-RAZOR



A-A

(57) Abstract: A device and an arrangement are disclosed, which create a powder Air-razor, which into an inhalation air volume de-aggregates and disperses a finely divided medication powder. The powder is generally loaded onto a dosing member intended for use with an inhaler. By means of an effort of sucking air through a mouthpiece connected to a nozzle, particles of the load of powder are gradually de-aggregated, dispersed and continuously released into the sucked air during a defined interval. The gradual de-aggregation and dispersal of the medication powder is generated by a relative motion introduced between the nozzle and the dosing member. The powder is generally loaded onto a larger area than the area of the air nozzle inlet. The nozzle may be positioned outside the dose area until an air stream has begun to flow into the nozzle by suction of air in an inhaling operation. Coincidental with the application of the suction or shortly afterwards a relative motion will begin such that the nozzle gradually traverses the bed of deposited powder. The powder Air-razor effect created by the shearing stresses and the turbulence provided by the high velocity air going into the nozzle inlet aperture when it hits the leading border of the contour of the powder is so powerful that the particles of particle aggregates at this point are released, de-aggregated, dispersed and subsequently entrained into the air stream going through the nozzle and through a mouthpiece into the airways of a user.

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