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# (12) United States Patent Barney et al.

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#### (54) DRY POWDER INHALATION APPARATUS

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See application file for complete search history.

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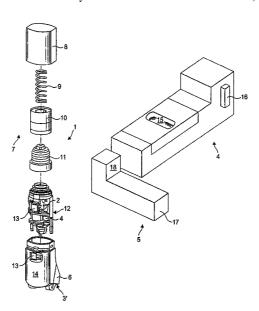
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#### (57) ABSTRACT

The invention relates to dry powder inhalation apparatus usually operable by breath of a user which provides for controlled and smooth transfer of medicament during multiple actuations by a user. A mechanism of the apparatus for achieving this controlled and smooth transfer includes a device (4) normally held adjacent a reservoir for receiving medicament in a cup or receptacle (15) and which is generally movable transversely of a longitudinal axis of the apparatus to delivery channels of the apparatus. This bodily shifting of the device (4) is achieved by a yoke acting on an abutment (16) thereof. Spillage of medicament in the apparatus is avoided.

#### 37 Claims, 12 Drawing Sheets



<sup>\*</sup> cited by examiner