



(12) **United States Patent**
Bartlett, II et al.

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(54) **SYSTEM FOR REDUCING LOCAL DISCOMFORT**

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See application file for complete search history.

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(51) **Int. Cl.**

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(57) **ABSTRACT**

A device for targeted delivery of a substance to an airway may include a conduit and at least two applicators. The conduit may include a proximal end and a bifurcated distal portion having two distal ends. Each applicator may be coupled with one of the distal ends of the conduit and may be configured to direct the substance out of the applicator toward one of two sides of an airway. A method for targeted delivery of a substance to an airway may involve advancing a substance delivery device into the airway, contacting two sides of the airway with at least two applicators of the substance delivery device, such that each applicator contacts the airway near a glossopharyngeal nerve and/or a superior laryngeal nerve on each of the two sides of the airway, and delivering the substance through the applicators to contact the airway along the two sides.

(52) **U.S. Cl.**

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(Continued)

(58) **Field of Classification Search**

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27 Claims, 60 Drawing Sheets

