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(54) **SYSTEM AND METHOD FOR DELIVERING MOISTURIZING LIQUID TO LIPS OF A SUBJECT**

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(58) **Field of Classification Search**
None
See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

4,679,551 A *	7/1987	Anthony	601/160
4,838,882 A	6/1989	Molinoff	
4,893,956 A *	1/1990	Wojcik et al.	401/130
4,917,674 A	4/1990	Molinoff	
5,055,108 A	10/1991	Jenkins	
5,062,795 A	11/1991	Woog	
5,927,661 A *	7/1999	Tinsley et al.	248/102
6,053,898 A *	4/2000	Ostrow	604/310
6,082,583 A *	7/2000	Bussell et al.	222/1
6,450,166 B1	9/2002	McDonald	
6,536,423 B2 *	3/2003	Conway	128/200.14
6,691,706 B2 *	2/2004	Ives	128/204.13
7,416,358 B2	8/2008	Legendre	
2003/0150885 A1 *	8/2003	Dunne	222/402.24
2004/0258457 A1 *	12/2004	Legendre	401/205
2005/0066463 A1 *	3/2005	Brunner	15/167.2
2008/0019758 A1 *	1/2008	Mallardi, III	401/6

FOREIGN PATENT DOCUMENTS

EP 1810712 7/2007

* cited by examiner

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(57) **ABSTRACT**

A system for delivering moisturizing liquid to the lips of a subject includes an applicator for applying the moisturizing liquid to the lips supported by a support structure so that at least a part of applicator is deployed so as to engage a recess between the lips of subject without obstructing contact between the subject's upper and lower lips. The proximity of the applicator to the lips allows the use of simple contact-based implementations of the applicator. At the same time, disruption of speech and other normal oral movement is minimized by avoiding any obstruction to contact between the lips.

17 Claims, 8 Drawing Sheets

