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[54] **GELLING AGENTS AND THICKENERS BASED ON CASSIA-GALACTOMANNANS**

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[30] **Foreign Application Priority Data**

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[52] **U.S. Cl.** **426/573**; 252/315.3; 252/8.51; 514/54

[58] **Field of Search** 426/573; 517/54; 252/315.3, 8.51

[56] **References Cited**

U.S. PATENT DOCUMENTS

3,740,388	6/1973	Montgomery et al.	260/209 R
3,870,600	3/1975	Youssef	195/81
3,879,890	4/1975	Chen et al.	47/1.4
3,992,554	11/1976	Blake et al.	426/557
4,369,125	1/1983	Kragen et al.	252/315.3
4,453,979	6/1984	DeMasi et al.	106/188
4,647,470	3/1987	Sanderson et al.	426/573
4,746,528	5/1988	Prest et al.	426/573

FOREIGN PATENT DOCUMENTS

750382	1/1967	Canada .
A121707	9/1975	German Democratic Rep. .

OTHER PUBLICATIONS

Kapoor et al., *Chem. Abs.*, 70, Abs. #75072d (1969).
Gupta et al., *Chem. Abs.*, 80, Abs. #117426m (1974).
Lal et al., *Chem. Abs.*, 78, Abs. #16383y (1973).
Patent Abstracts of Japan, vol. 7, No. 201, Sep. 6, 1983, p. C-184 (1346).

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[57] **ABSTRACT**

The invention relates to gelling agents and thickeners based on Cassia-galactomannans and especially a synergistic mixture of (a) Cassia-toragalactomannan, and (b) carrageenan, agar and/or xanthan.

16 Claims, No Drawings