

[54] SLOW RELEASE FORMULATION

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[73] Assignee: Ethical Pharmaceuticals Limited, United Kingdom

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[30] Foreign Application Priority Data

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[51] Int. Cl.<sup>4</sup> ..... A61K 9/16; A61K 9/26

[52] U.S. Cl. .... 424/470; 514/965; 424/468; 424/469; 424/472; 424/473

[58] Field of Search ..... 424/468, 469, 470, 472, 424/473; 514/965

[56] References Cited

U.S. PATENT DOCUMENTS

2,809,916	10/1957	Hermelin	424/500
2,809,917	10/1957	Hermelin	424/472
3,148,124	9/1964	Gaunt	424/468
3,279,998	10/1966	Raff et al.	424/469
3,400,197	9/1968	Lippmann	424/469
3,402,240	9/1968	Cain et al.	424/468
3,870,790	3/1975	Lowey et al.	424/469
3,946,110	3/1976	Hill	514/161
3,962,414	6/1976	Michaels	424/473
4,369,172	1/1983	Schor et al.	424/468
4,540,566	9/1985	Davis et al.	514/964
4,590,062	5/1986	Jang	424/469
4,695,467	9/1987	Uemura et al.	424/468
4,780,318	10/1988	Appelgren et al.	514/965

FOREIGN PATENT DOCUMENTS

0013131	9/1980	European Pat. Off.
0094513	11/1983	European Pat. Off.
1021924	3/1966	United Kingdom
1033484	6/1966	United Kingdom
1137379	12/1968	United Kingdom
1333576	10/1973	United Kingdom
1405088	9/1975	United Kingdom
1486288	9/1977	United Kingdom

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[57] ABSTRACT

A slow release formulation to be administered to humans or animals, comprising primary granules which contain an active ingredient and are in a secondary matrix of a water soluble/dispersible slow release material, the granules themselves comprising particles containing the active ingredients and in a primary matrix of a water soluble/dispersible slow release material.

Optionally the formulation comprises a binder phase of a water insoluble slow release material having embedded therein secondary granules comprising the secondary matrix containing the primary matrix granules.

The water soluble/dispersible material may be a polysaccharide and acacia and low viscosity methylcellulose are exemplified, as well as alginate and gelatine.

20 Claims, 4 Drawing Sheets

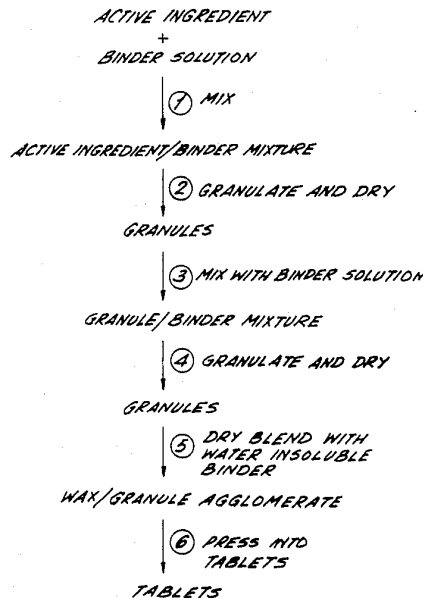


FIG. 1.

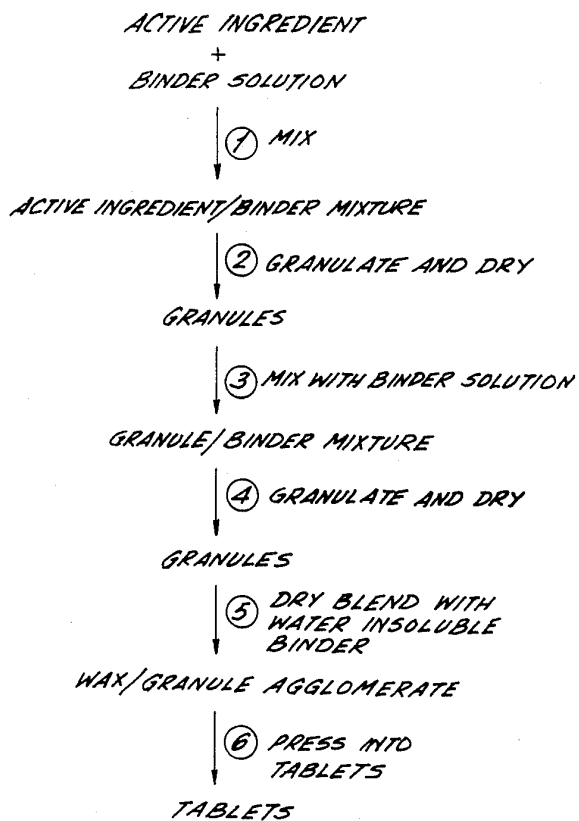


FIG. 2.

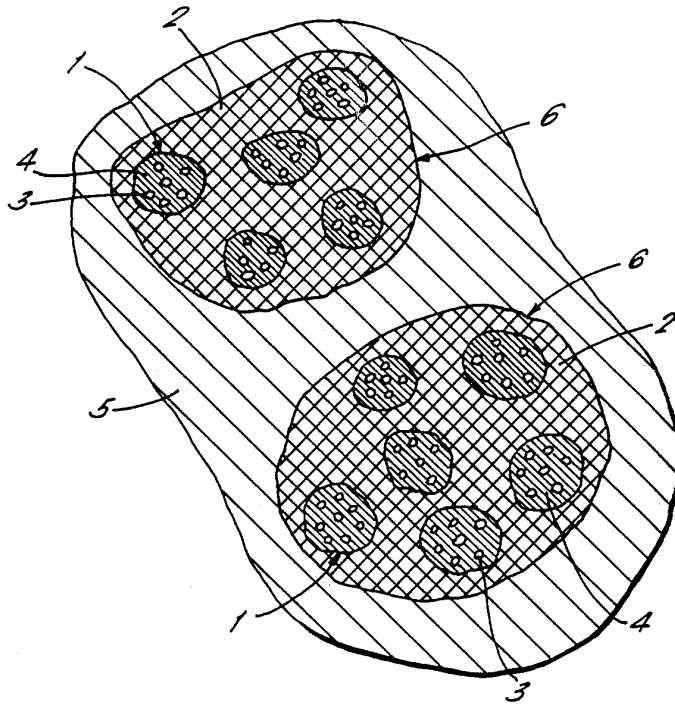


FIG. 3.

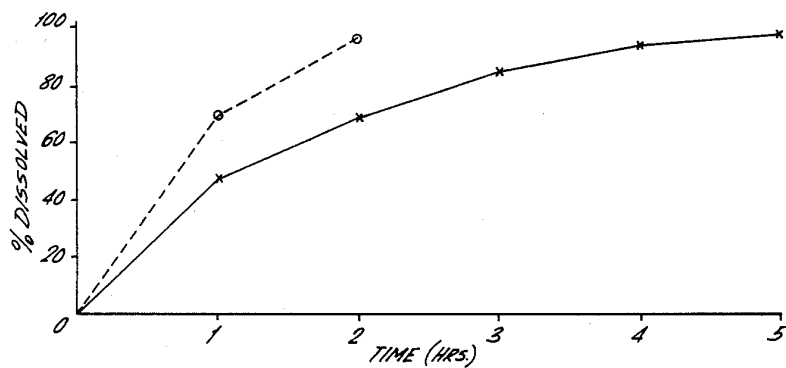


FIG. 4.

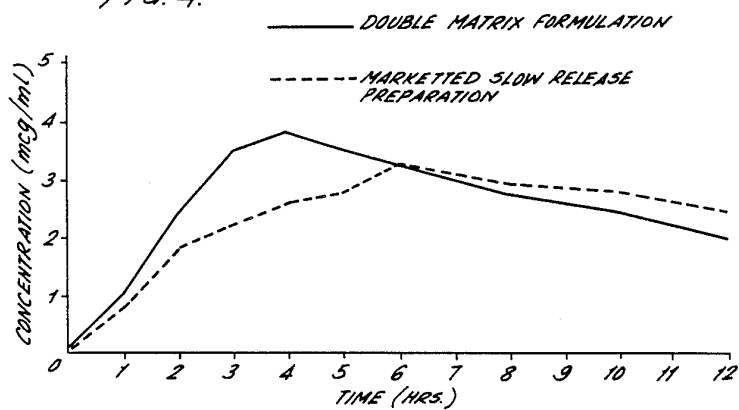


FIG. 5.

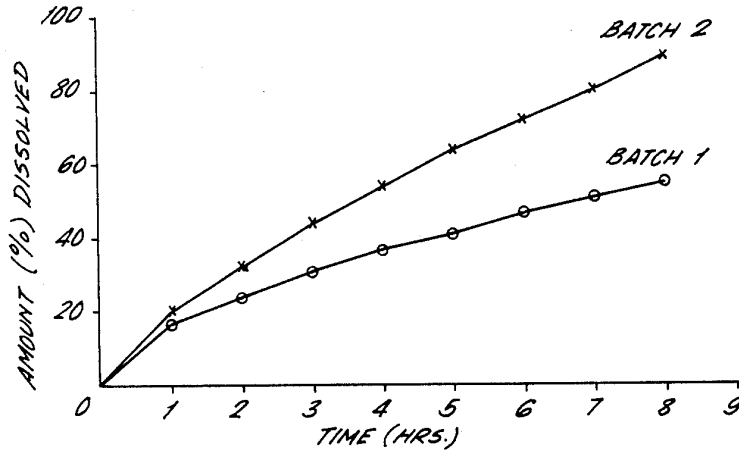
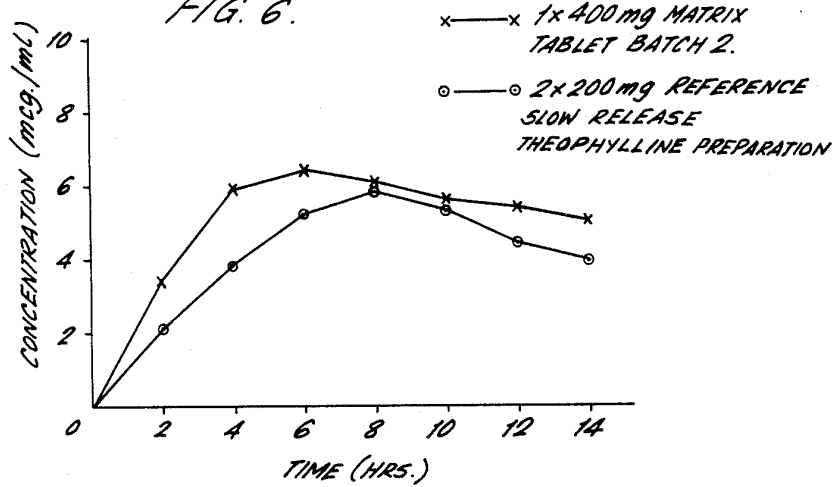


FIG. 6.



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