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# United States Patent [19]

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Schultz

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[54] RESTRICTED EXPANSION OF QUERY TERMS USING PART OF SPEECH TAGGING

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[73] Assignee: Infonautics Corporation, Wayne, Pa.

[21] Appl. No.: 528,740

[22] Filed: Sep. 15, 1995

[51] Int. Cl.<sup>6</sup> ..... G06F 17/30

[52] U.S. Cl. .... 395/604; 364/419; 364/419.08; 364/222.01; 364/225; 364/225.3; 364/225.4

[58] Field of Search ..... 364/19.08, 419, 364/419.08, 222.01, 225.3, 225.4, 225; 395/600, 605, 604

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Assistant Examiner—Jean M. Corriélus  
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## [57] ABSTRACT

A method for searching a database of an information retrieval system in response to a query having at least one query word with a part of speech. for applying the query word to the database and selecting information from the database according to the query word. A semantic network is provided for determining expansion words to expand the search of the database in response to said the query word. The part of speech of the selected query word is determined. The selected query word is applied to the semantic network to provide a query expansion word in response to the selected query word. The part of speech of the query expansion word is determined. The query expansion word is applied to the database in accordance with the part of speech of the selected query word and the part of speech of the query expansion word.

## [56] References Cited

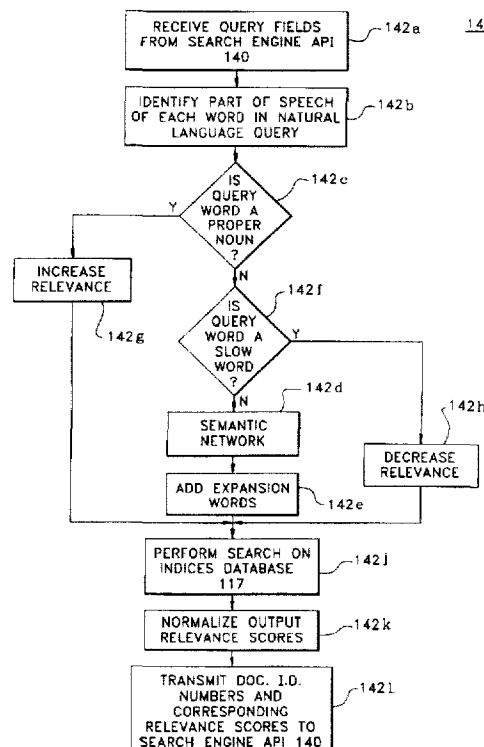
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4 Claims, 22 Drawing Sheets



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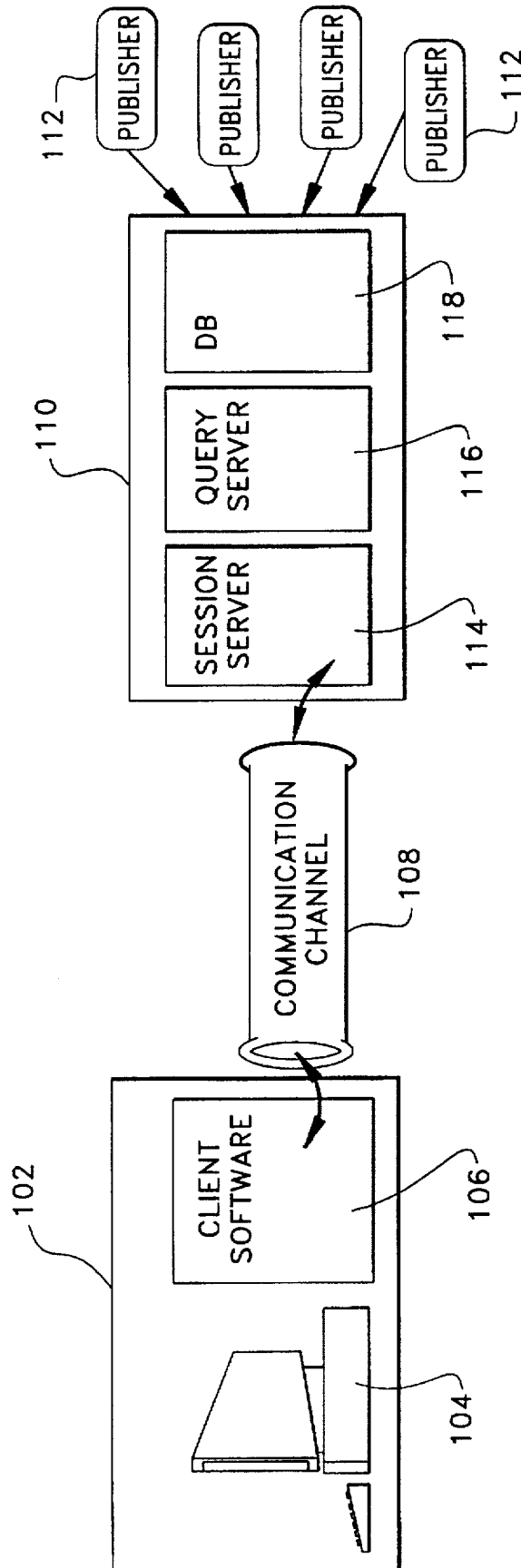
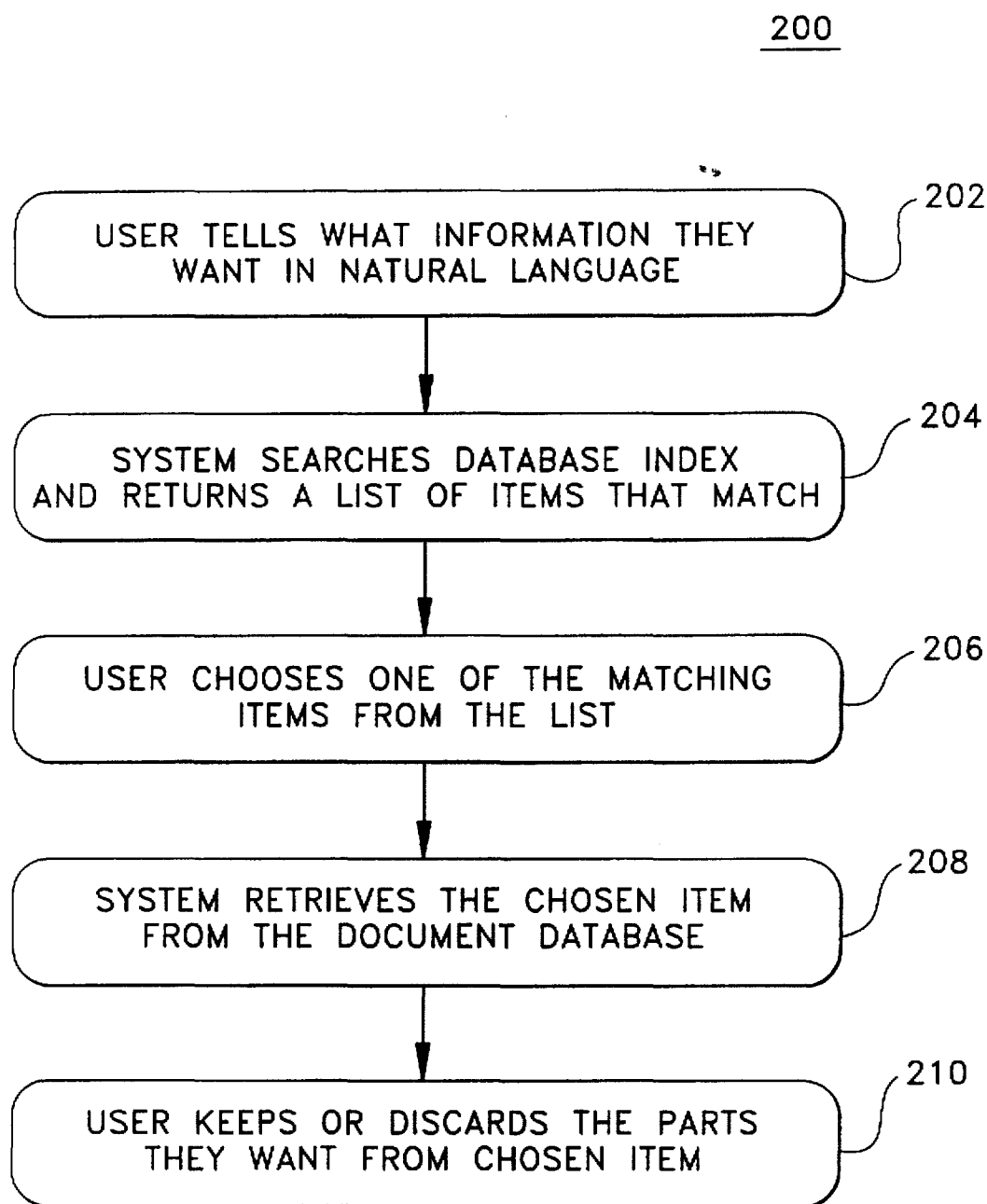


FIG. 1

*FIG. 2*

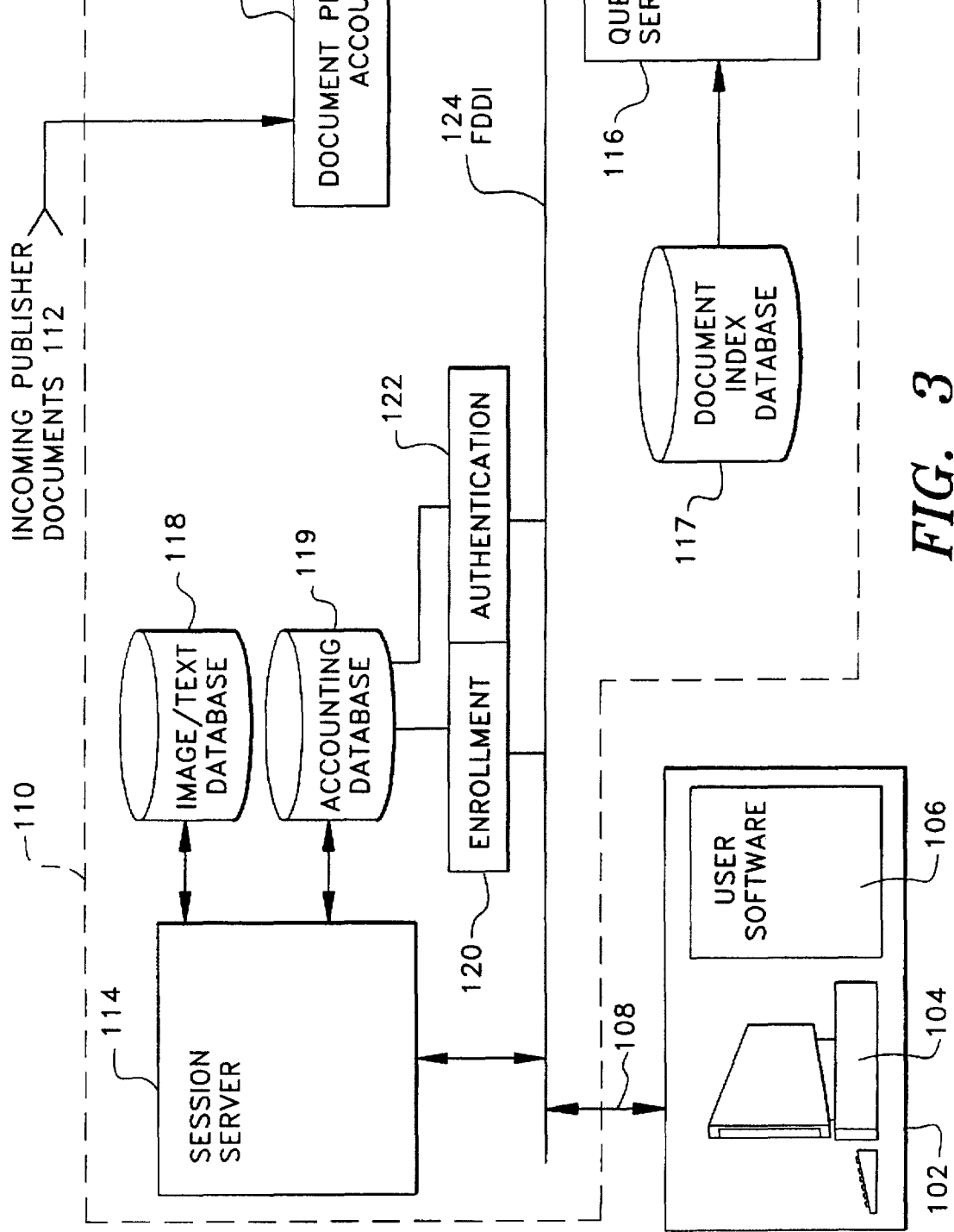


FIG. 3

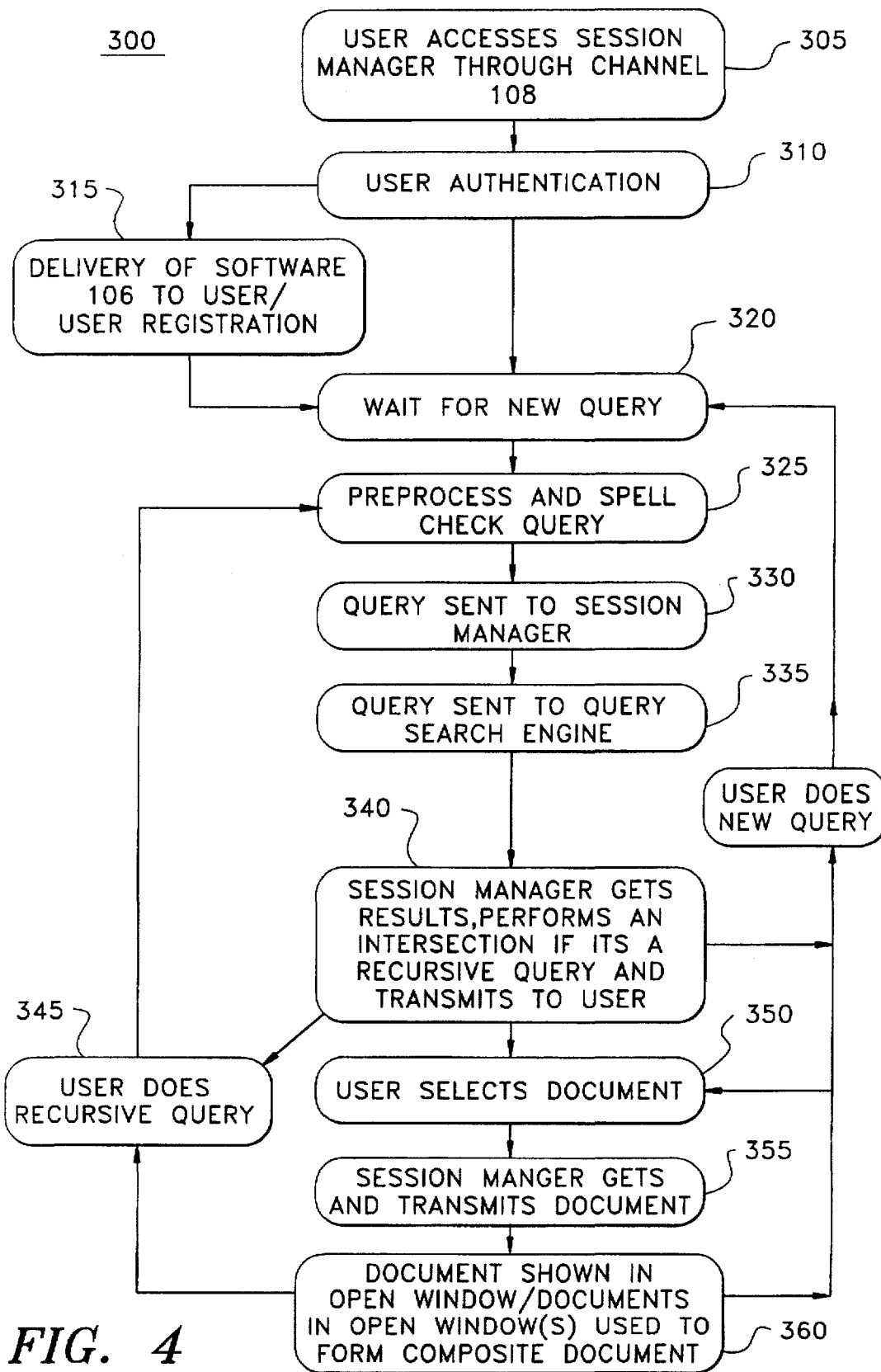


FIG. 4

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