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United States Patent [19]

Bowman et al.

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[54] **REFINING SEARCH QUERIES BY THE SUGGESTION OF CORRELATED TERMS FROM PRIOR SEARCHES**

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[21] Appl. No.: **09/145,360**

[22] Filed: **Sep. 1, 1998**

Related U.S. Application Data

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[51] **Int. Cl.**[6] **G06F 17/30**

[52] **U.S. Cl.** **707/5**; 707/2; 707/4; 707/10

[58] **Field of Search** 707/5, 2, 10, 4

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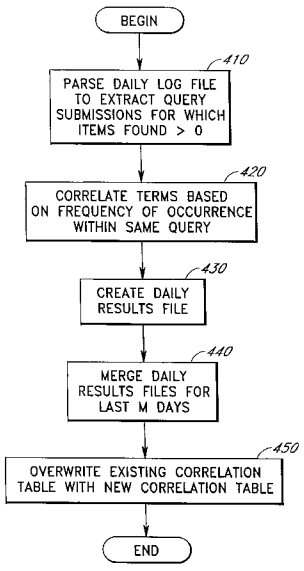
[57] **ABSTRACT**

A search engine is disclosed which suggests related terms to the user to allow the user to refine a search. The related terms are generated using query term correlation data which reflects the frequencies with which specific terms have previously appeared within the same query. The correlation data is generated and stored in a look-up table using an off-line process which parses a query log file. The table is regenerated periodically from the most recent query submissions (e.g., the last two weeks of query submissions), and thus strongly reflects the current preferences of users. Each related term is presented to the user via a respective hyperlink which can be selected by the user to submit a modified query. In one embodiment, the related terms are added to and selected from the table so as to guarantee that the modified queries will not produce a NULL query result.

28 Claims, 10 Drawing Sheets



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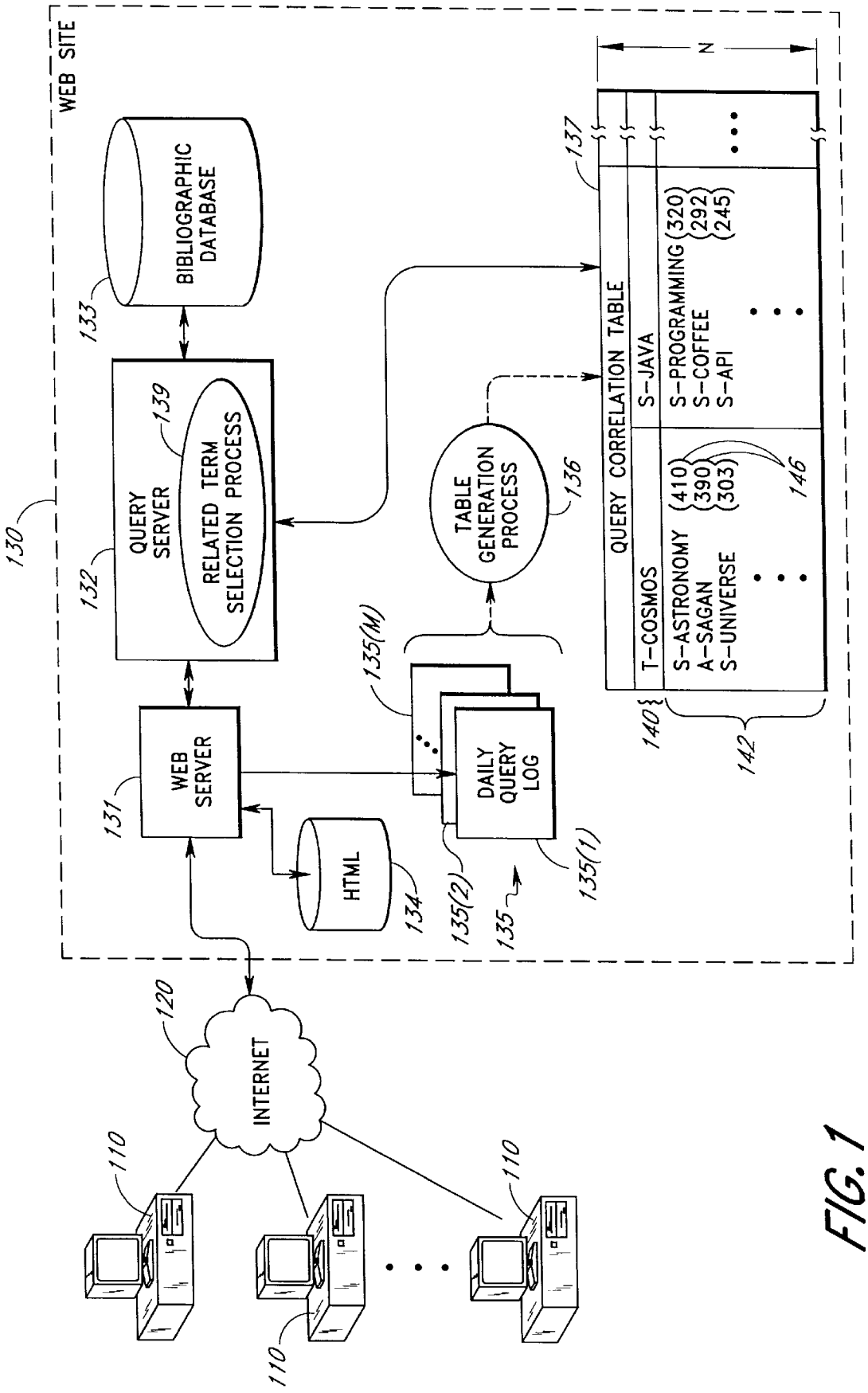

FIG. 1

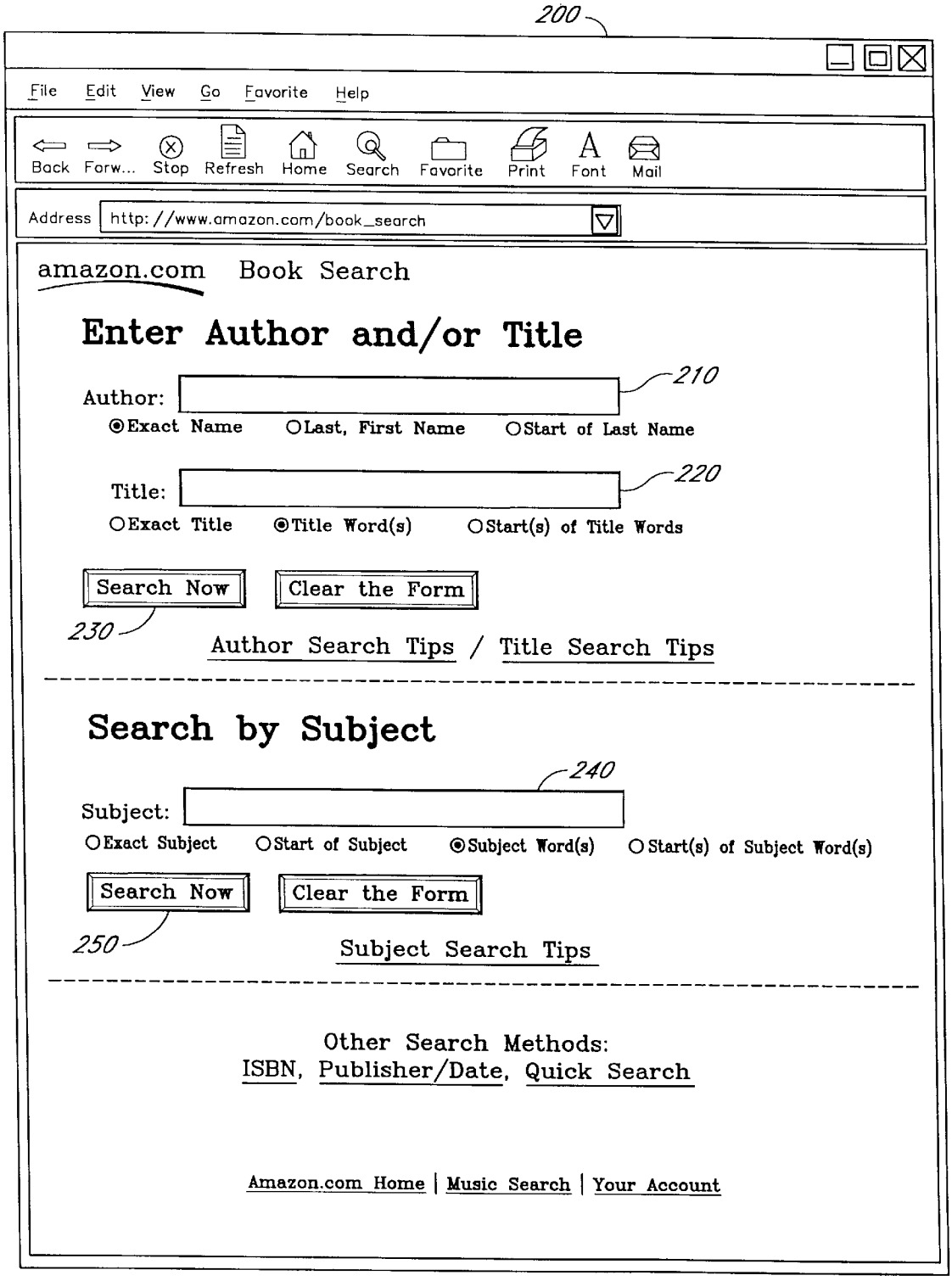

FIG. 2

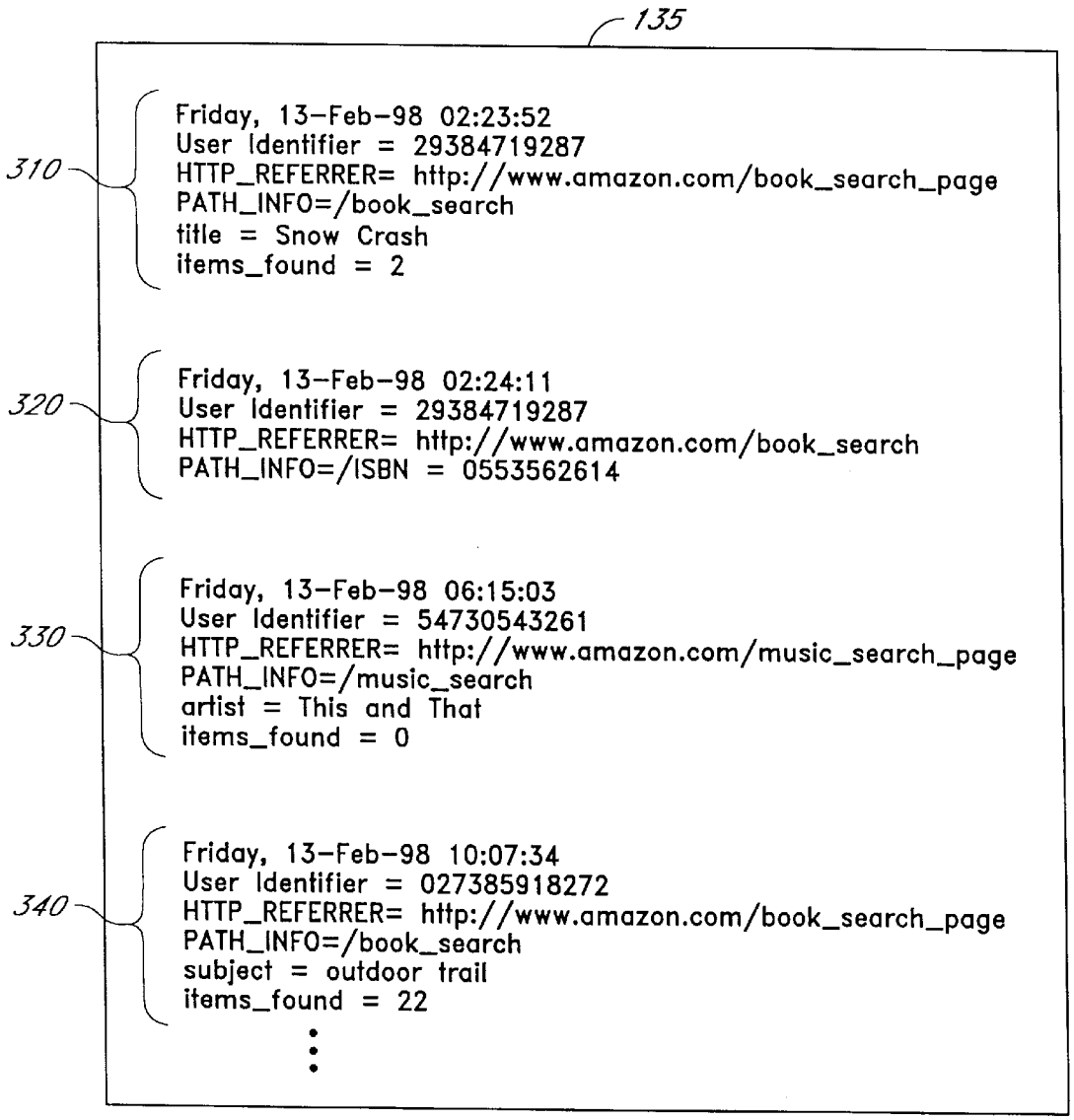

FIG. 3

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