

(12) **United States Patent**  
**Chang et al.**

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(54) **METHODS FOR INTELLIGENT UNIVERSAL DATABASE SEARCH ENGINES**

5,634,051 \* 5/1997 Thomson ..... 707/5  
 5,878,423 \* 3/1999 Anderson et al. .... 707/100

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\* cited by examiner

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(\* ) Notice: This patent issued on a continued prosecution application filed under 37 CFR 1.53(d), and is subject to the twenty year patent term provisions of 35 U.S.C. 154(a)(2).

(57) **ABSTRACT**

Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.

A method and apparatus for processing user-submitted search information to permit a database to be searched regardless of the format and language of the user-submitted information. The user-submitted information is first categorized into one or more categories, where each category is a type of information such as a date, a proper name or a place. For each category pertaining to the user-submitted information, the search is refined by comparing the user-submitted information to a feature table containing specific data types corresponding to each category. From the results of any affirmative comparison with the feature table, a starting location within a corresponding search table is retrieved. The search is further refined by comparing the user-submitted information to the entries of the search table beginning at the starting location. From the results of any affirmative comparison with the search table entries a database address is obtained which is used to obtain a database entry sought after by the user.

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**Related U.S. Application Data**

(63) Continuation of application No. 08/998,955, filed on Dec. 29, 1997.

(51) **Int. Cl.**<sup>7</sup> ..... **G06F 9/00**

(52) **U.S. Cl.** ..... **707/5; 707/4**

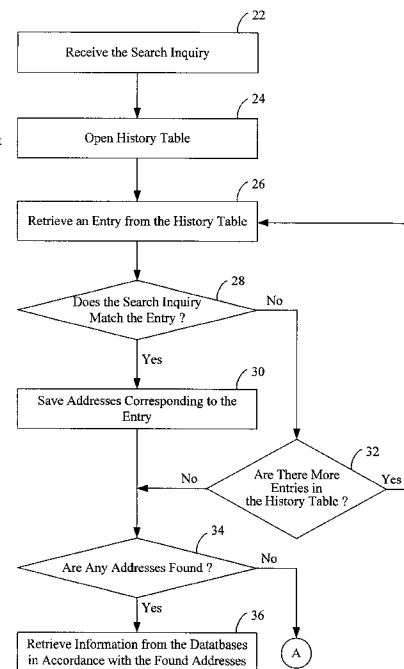
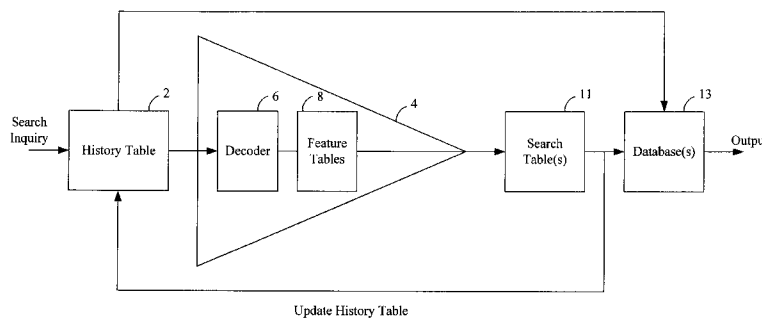
(58) **Field of Search** ..... **707/1-204**

(56) **References Cited**

**U.S. PATENT DOCUMENTS**

5,388,196 \* 2/1995 Pajak et al. .... 345/329

**21 Claims, 9 Drawing Sheets**



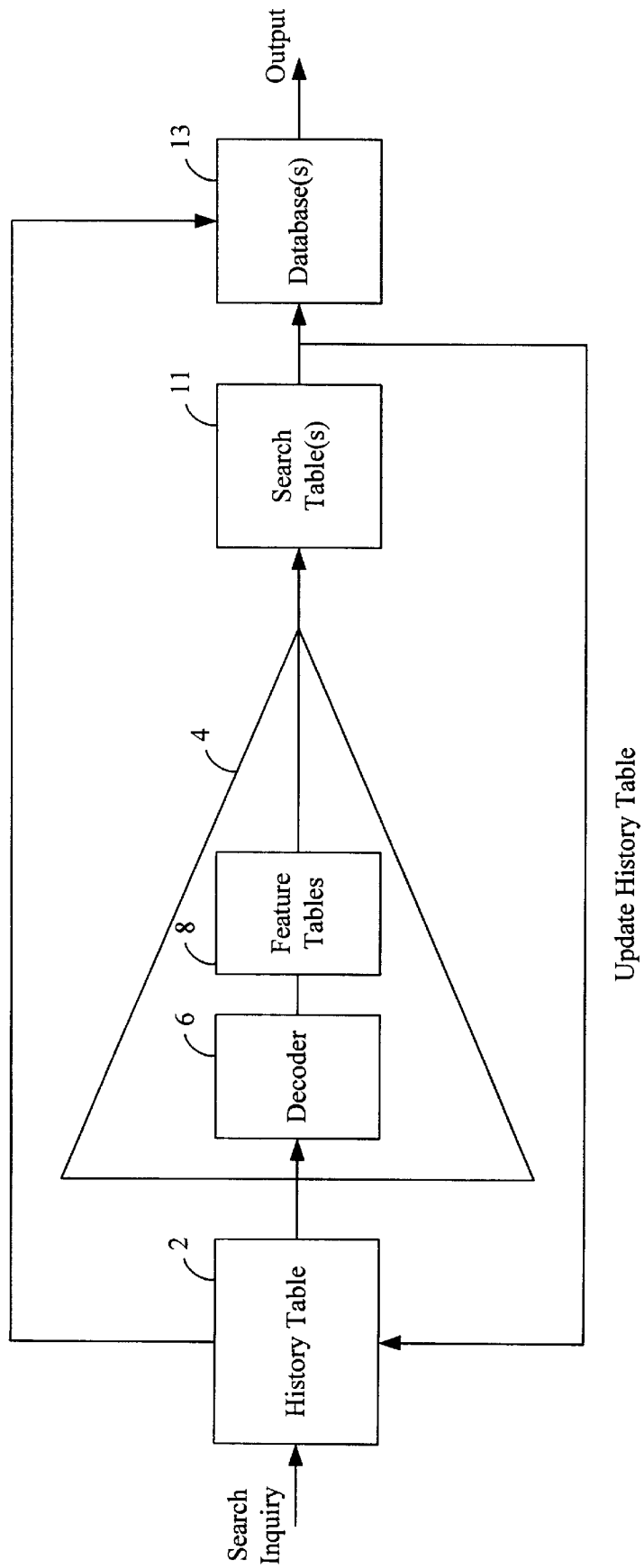


Fig. 1a

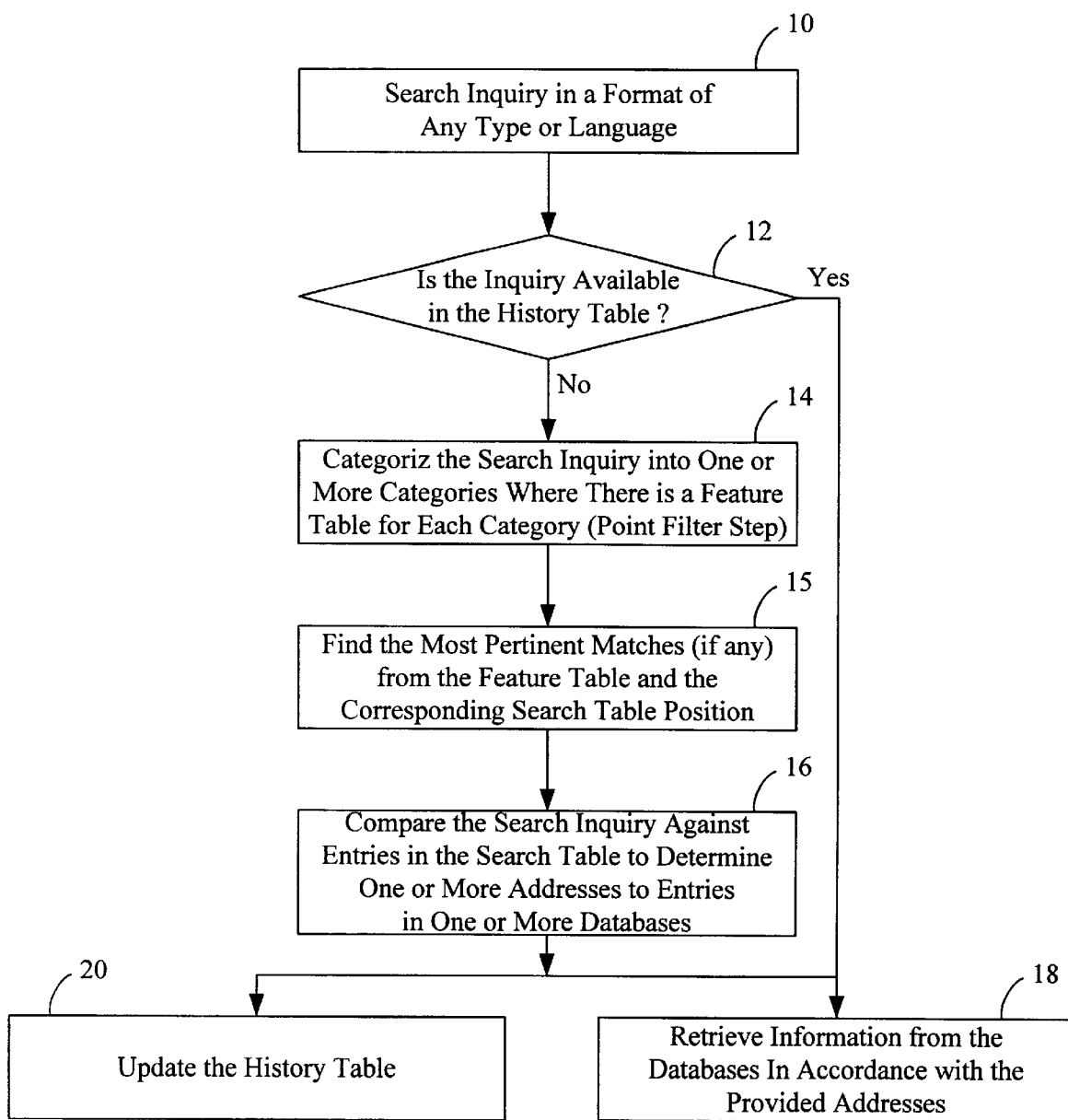


Fig. 1b

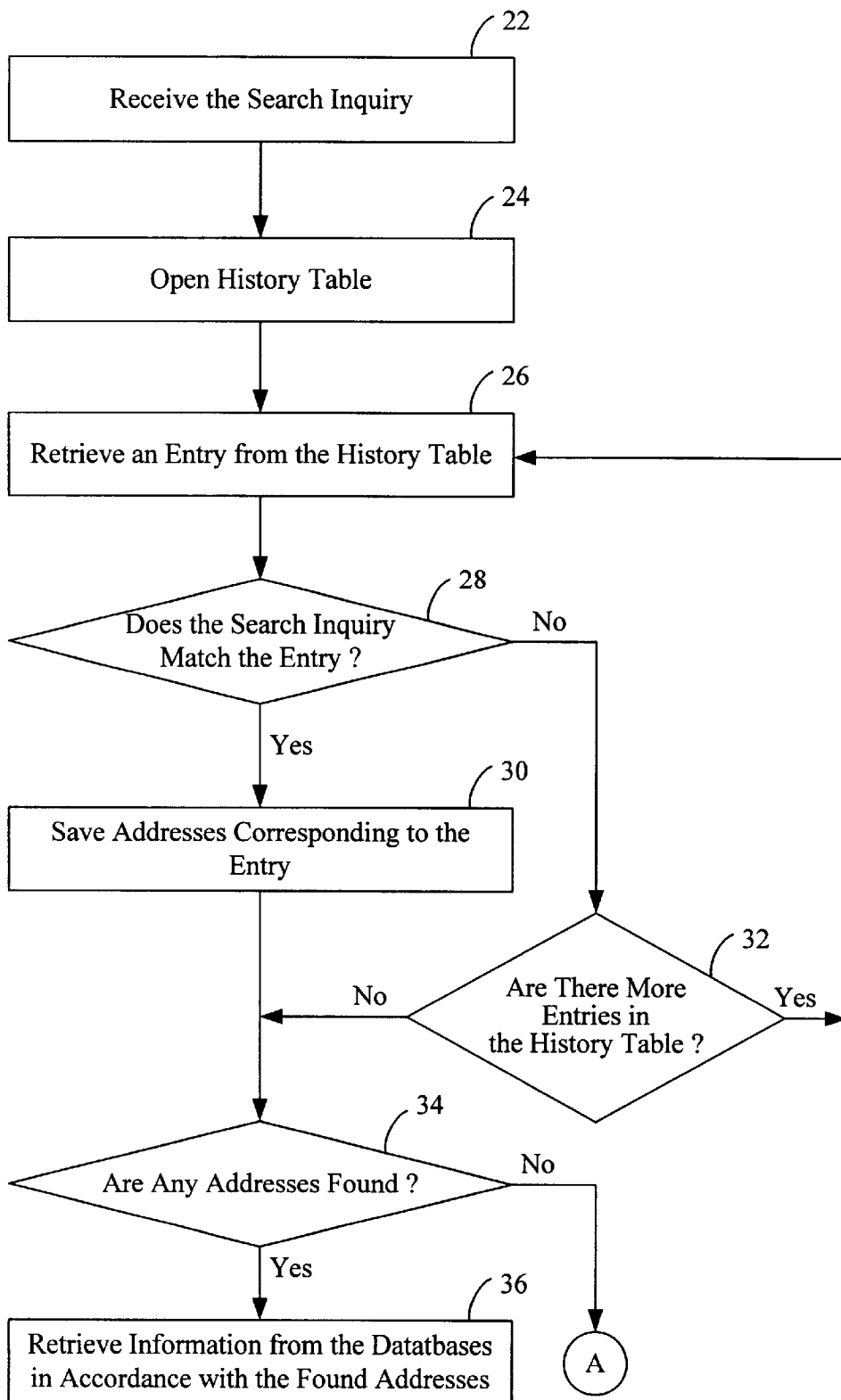


Fig. 2

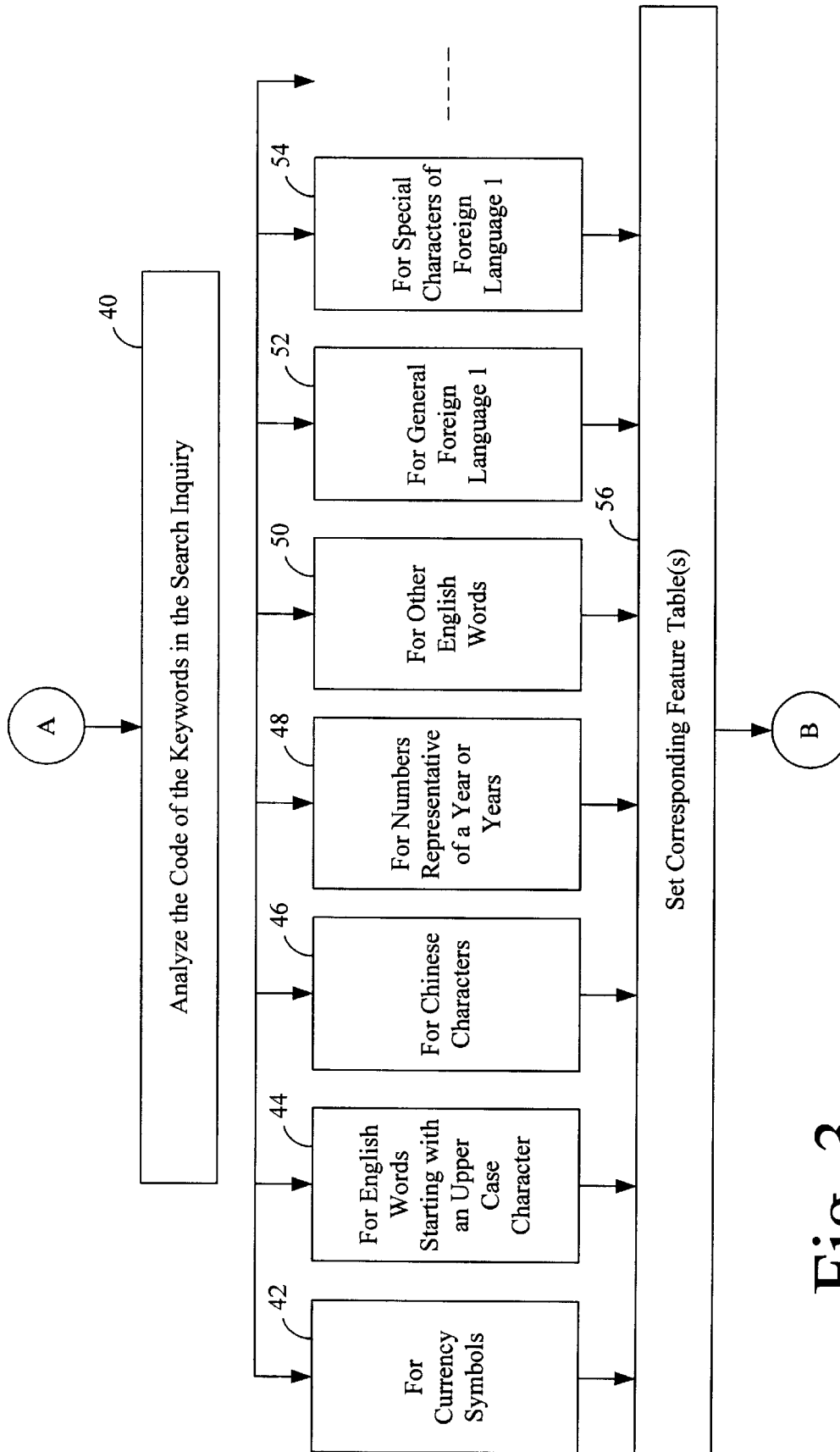


Fig. 3

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