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(54) **SEQUENTIAL SUBSET CATALOG SEARCH ENGINE**

(75) Inventors: **Michael Renn Neal**, Superior; **James Michael Wilmsen**, Westminster; **Christopher Wade Beall**, Lafayette, all of CO (US)

(73) Assignee: **Requisite Technology, Inc.**, Westminster, CO (US)

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(52) U.S. Cl. **707/3**; 707/1; 707/102; 707/103; 706/12; 706/45; 709/218; 709/224; 709/245
(58) **Field of Search** 345/419, 450, 345/850, 853, 854; 707/1, 2, 3, 4, 5, 6, 10, 100, 101, 102, 205, 513; 709/224, 218, 245; 706/12, 45

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*Primary Examiner*—Hosain T. Alam
Assistant Examiner—Shahid Alam
(74) *Attorney, Agent, or Firm*—Blakely, Sokoloff, Taylor & Zafman LLP

(57) **ABSTRACT**

An electronic catalog search engine is configurable to optimize the search process by identifying the desired item from the most advantageous supplier, while efficiently utilizing computing resources. The search engine comprises a configurable search and data subset creation mechanism. The system accepts search terms from a user, and then executes a sequence of search strategies on subsets of the database which may include a proximity search, a word count search, and a fuzzy logic search. Subsets can be searched in any order and different search strategies can be applied to different subsets. The sequences are terminated when search steps have uncovered at least one match. Each database entry has a corresponding product category. A list of categories from each of the matching products is dynamically compiled and displayed to the user. The user can page through the list of displayed matches, or alternatively can create a subset of the list by selecting only the items within one of the categories. In addition, the user can further refine the list of items by selecting those items having a particular attribute. The invention has the advantage that users with a wide range of skills and/or familiarity with products can quickly find the products that they need. The system has the additional feature of creating electronic requisitions for the products listed in the database.
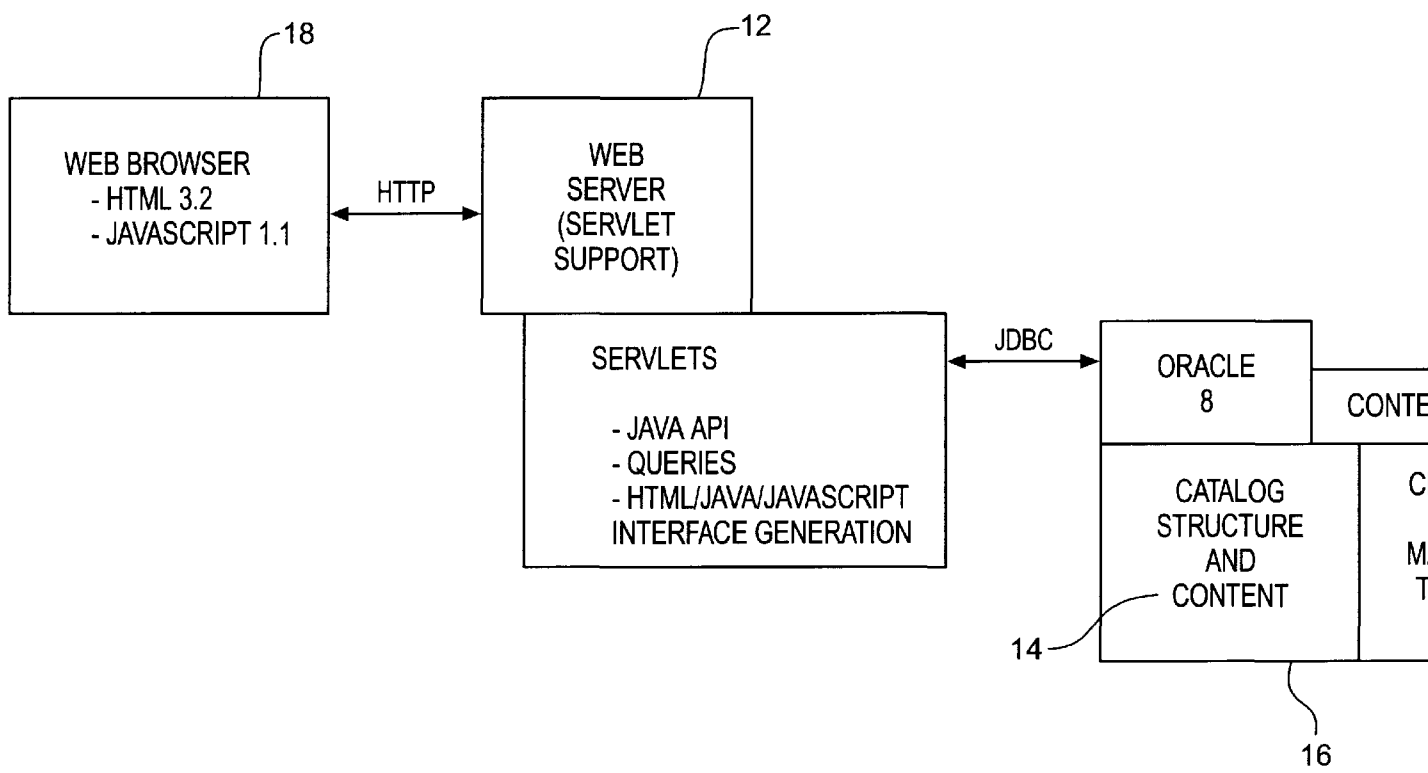
13 Claims, 3 Drawing Sheets
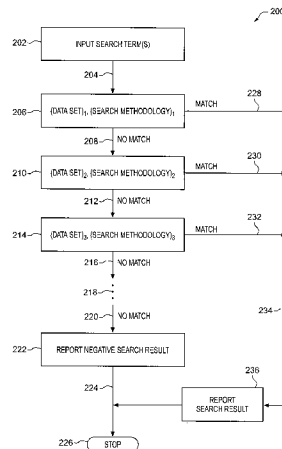
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FIG. 1

FIG. 2

200

202 — INPUT SEARCH TERM(S)

204

206 — (DATA SET)$_1$, (SEARCH METHODOLOGY)$_1$ MATCH 228

208 — NO MATCH

210 — (DATA SET)$_2$, (SEARCH METHODOLOGY)$_2$ MATCH 230

212 — NO MATCH

214 — (DATA SET)$_3$, (SEARCH METHODOLOGY)$_3$ MATCH 232

216 — NO MATCH

218

220 — NO MATCH

234

222 — REPORT NEGATIVE SEARCH RESULT

236

224

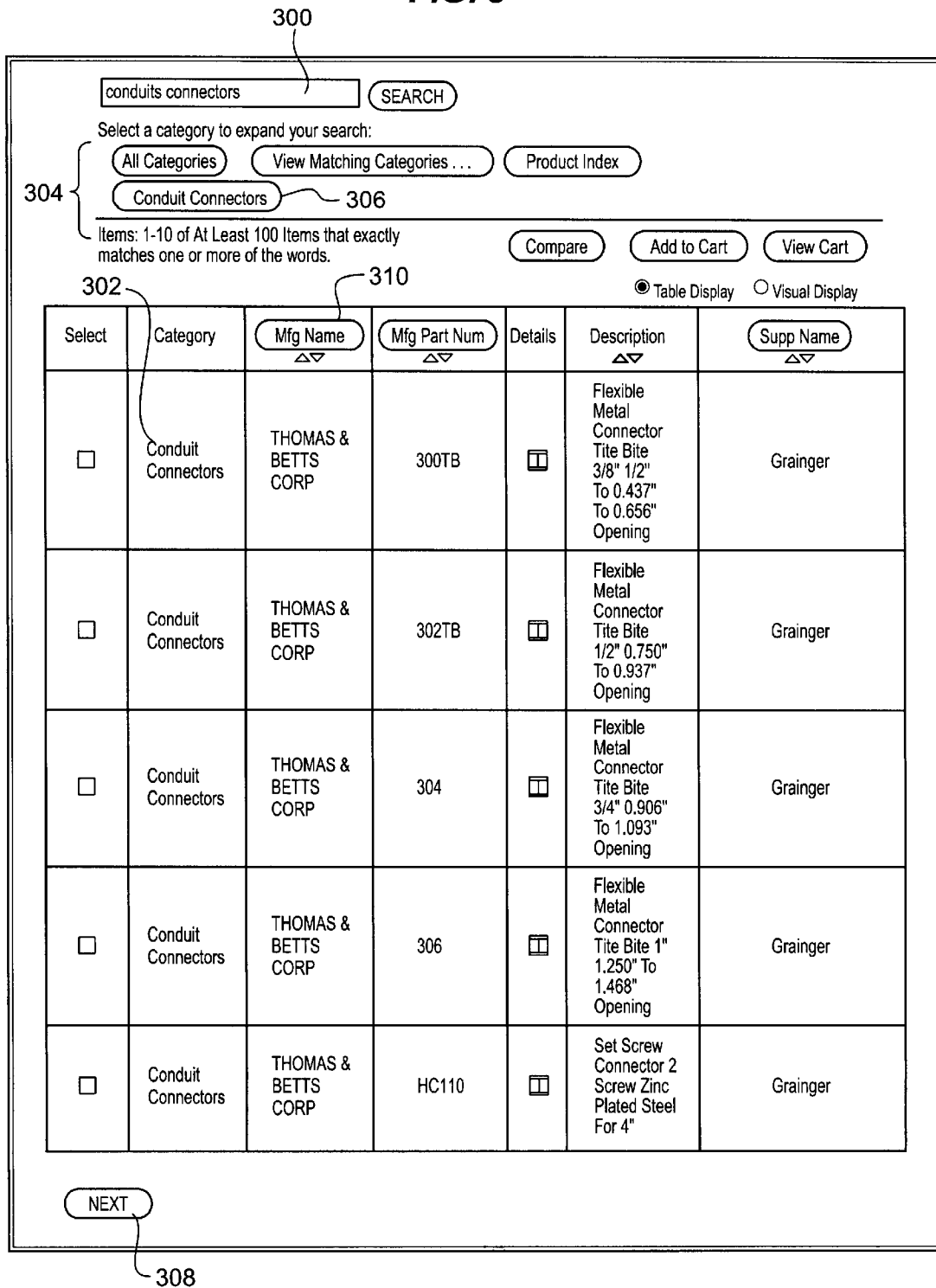REPORT SEARCH RESULT

226 — STOP

FIG. 3

300
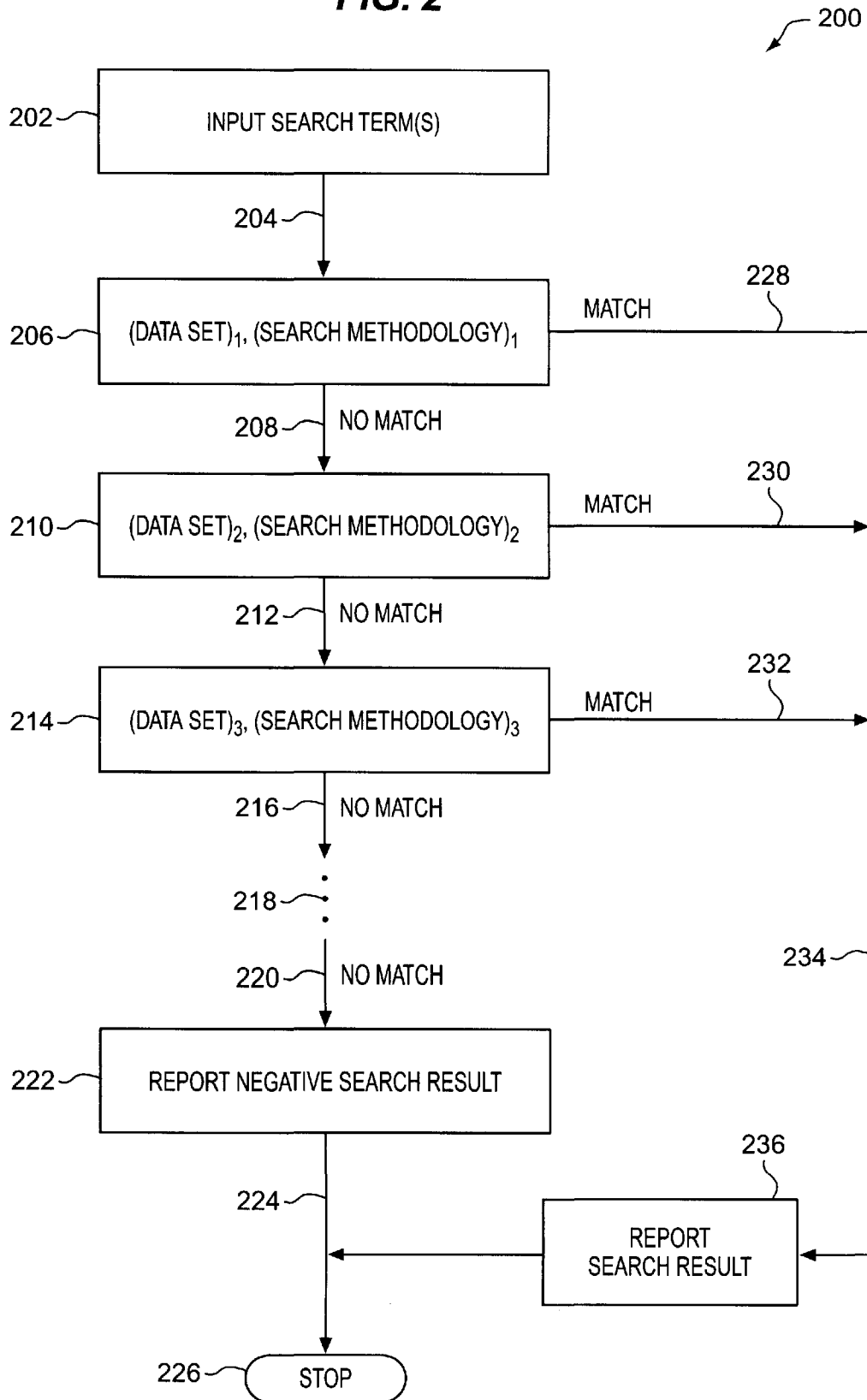
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