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(54) Title: SEMANTIC GRAPH TEXTUAL CODING

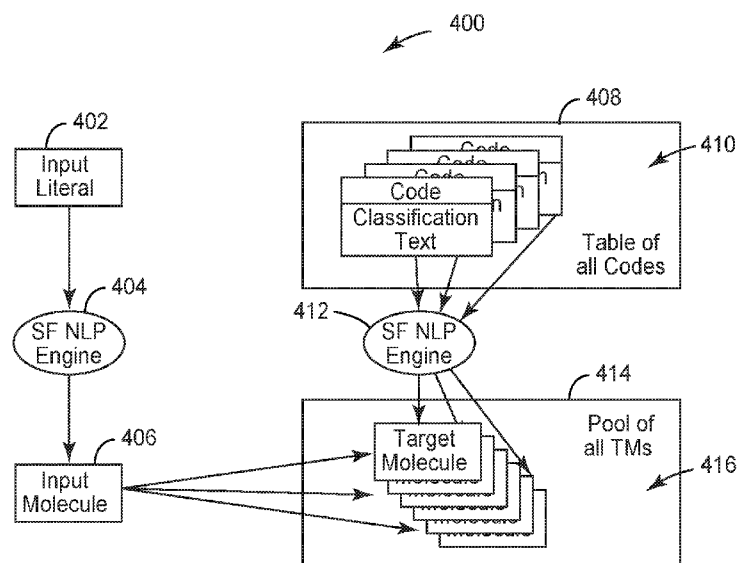


FIG. 4

(57) Abstract: Various embodiments herein each include at least one of systems, methods, software, and data structures for semantic graph textual coding. While some embodiments are applicable to coding text of medical records for billing purposes, other embodiments are applicable to coding of any text, regardless to any number of different coding schemes, whether the coding scheme is a defined standard or an ad hoc code for a particular project. One method embodiment includes processing text of a new record to generate at least one concept molecule that represents semantic meaning of the text of the new record and comparing each of the at least one concept molecules to a set of target molecules to identify at least one closest matching target molecule to each of the at least one concept molecules. The method may then store a representation of a closest matching target molecule in association with the new record.

**(81) Designated States** (*unless otherwise indicated, for every kind of national protection available*): AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BN, BR, BW, BY, BZ, CA, CH, CL, CN, CO, CR, CU, CZ, DE, DJ, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IR, IS, JO, JP, KE, KG, KH, KN, KP, KR, KW, KZ, LA, LC, LK, LR, LS, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PA, PE, PG, PH, PL, PT, QA, RO, RS, RU, RW, SA, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TH, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW.

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**Declarations under Rule 4.17:**

- *as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii))*
- *as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii))*

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## INTERNATIONAL SEARCH REPORT

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CPC - G06F 16/285, 19/00; G06Q 10/06, 50/24; G16H 10/60, 15/00, 50/20, 50/70; G10L 15/18

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)  
See Search History document

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched  
See Search History document

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)  
See Search History document

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X --- A	US 2012/0110016 A1 (PHILLIPS, J) 03 May 2012; figure 4, paragraphs [0068]	1-9, 13-19 --- 10-12
A	US 2008/0201280 A1 (MARTIN, H et al.) 21 August 2008; entire document	1-19
A	US 2012/0232923 A1 (CARUS, A et al.) 13 September 2012; entire document	1-19

Further documents are listed in the continuation of Box C.

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