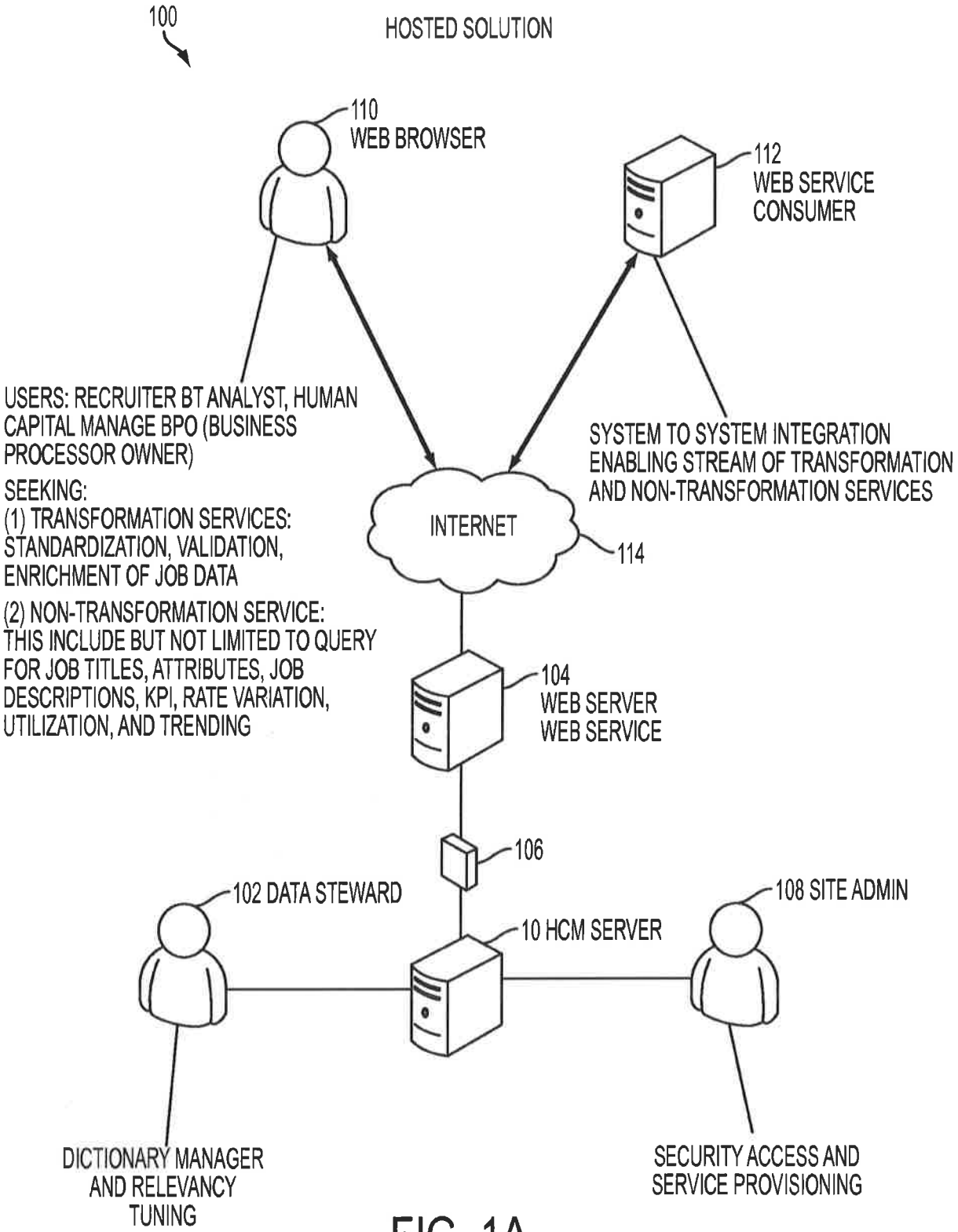

100
HOSTED SOLUTION
110
WEB BROWSER
112
WEB SERVICE
CONSUMER
USERS: RECRUITER BT ANALYST, HUMAN CAPITAL MANAGE BPO (BUSINESS PROCESSOR OWNER)
SEEKING:
(1) TRANSFORMATION SERVICES: STANDARDIZATION, VALIDATION, ENRICHMENT OF JOB DATA
(2) NON-TRANSFORMATION SERVICE: THIS INCLUDE BUT NOT LIMITED TO QUERY FOR JOB TITLES, ATTRIBUTES, JOB DESCRIPTIONS, KPI, RATE VARIATION, UTILIZATION, AND TRENDING
SYSTEM TO SYSTEM INTEGRATION ENABLING STREAM OF TRANSFORMATION AND NON-TRANSFORMATION SERVICES
INTERNET
114
104
WEB SERVER
WEB SERVICE
106
102 DATA STEWARD
10 HCM SERVER
108 SITE ADMIN
DICTIONARY MANAGER AND RELEVANCY TUNING
SECURITY ACCESS AND SERVICE PROVISIONING

FIG. 1A

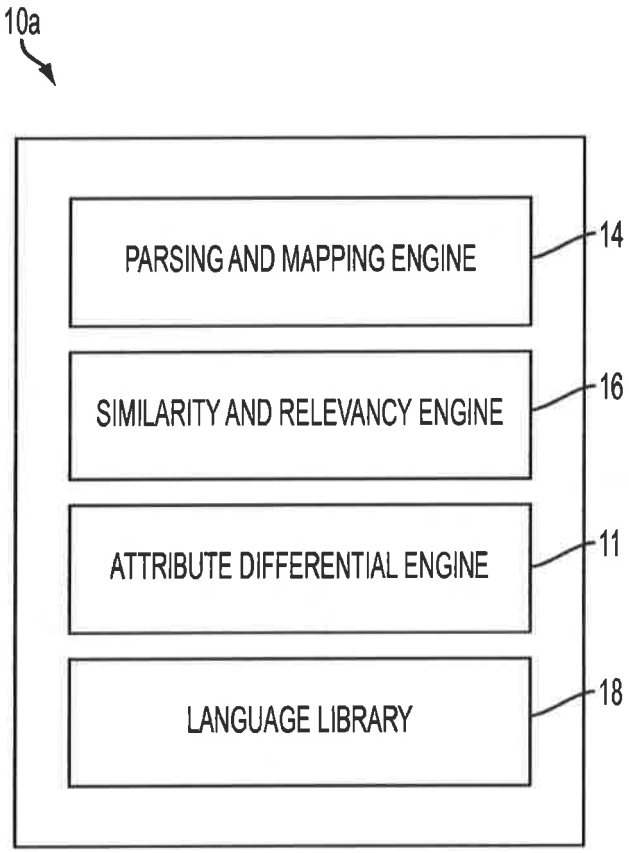

10a
PARSING AND MAPPING ENGINE
14
SIMILARITY AND RELEVANCY ENGINE
16
ATTRIBUTE DIFFERENTIAL ENGINE
11
LANGUAGE LIBRARY
18

FIG. 1B

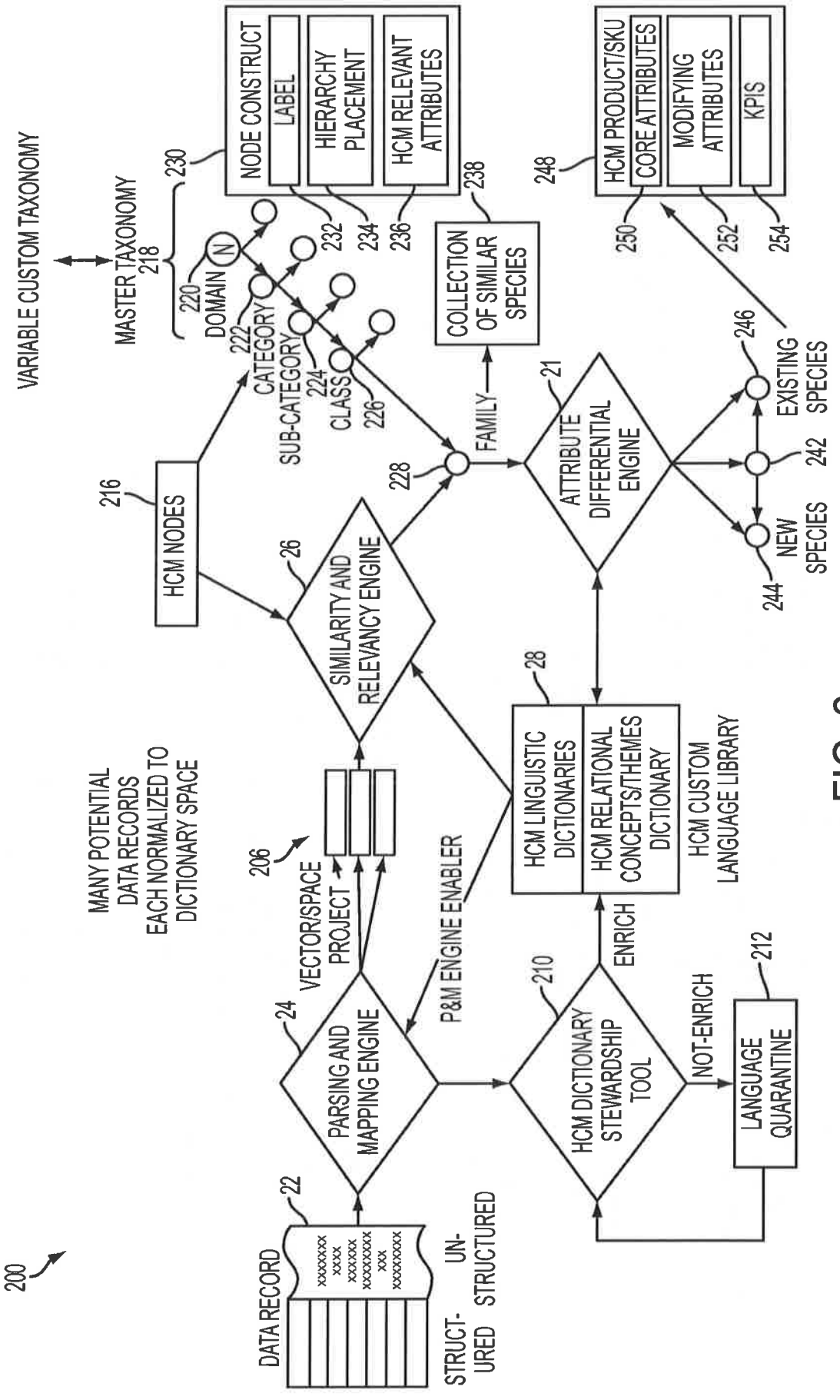

200
VARIABLE CUSTOM TAXONOMY
MASTER TAXONOMY
218
230
NODE CONSTRUCT
LABEL
HIERARCHY PLACEMENT
HCM RELEVANT ATTRIBUTES
232
234
236
238
COLLECTION OF SIMILAR SPECIES
248
HCM PRODUCT/SKU
CORE ATTRIBUTES
MODIFYING ATTRIBUTES
KPIS
250
252
254
220 DOMAIN
222 CATEGORY
224 SUB-CATEGORY
226 CLASS
FAMILY
228
216 HCM NODES
26 SIMILARITY AND RELEVANCY ENGINE
21 ATTRIBUTE DIFFERENTIAL ENGINE
246 EXISTING SPECIES
242
244 NEW SPECIES
MANY POTENTIAL DATA RECORDS EACH NORMALIZED TO DICTIONARY SPACE
206 VECTOR/SPACE PROJECT
28
HCM LINGUISTIC DICTIONARIES
HCM RELATIONAL CONCEPTS/THEMES DICTIONARY
HCM CUSTOM LANGUAGE LIBRARY
P&M ENGINE ENABLER
24 PARSING AND MAPPING ENGINE
210 HCM DICTIONARY STEWARDSHIP TOOL
ENRICH
NOT-ENRICH
212 LANGUAGE QUARANTINE
22 DATA RECORD
xxxxxxx xxxx xxxxxx xxxxxxxx xxx xxxxxxxx
STRUCT-URED UN-STRUCTURED

FIG. 2

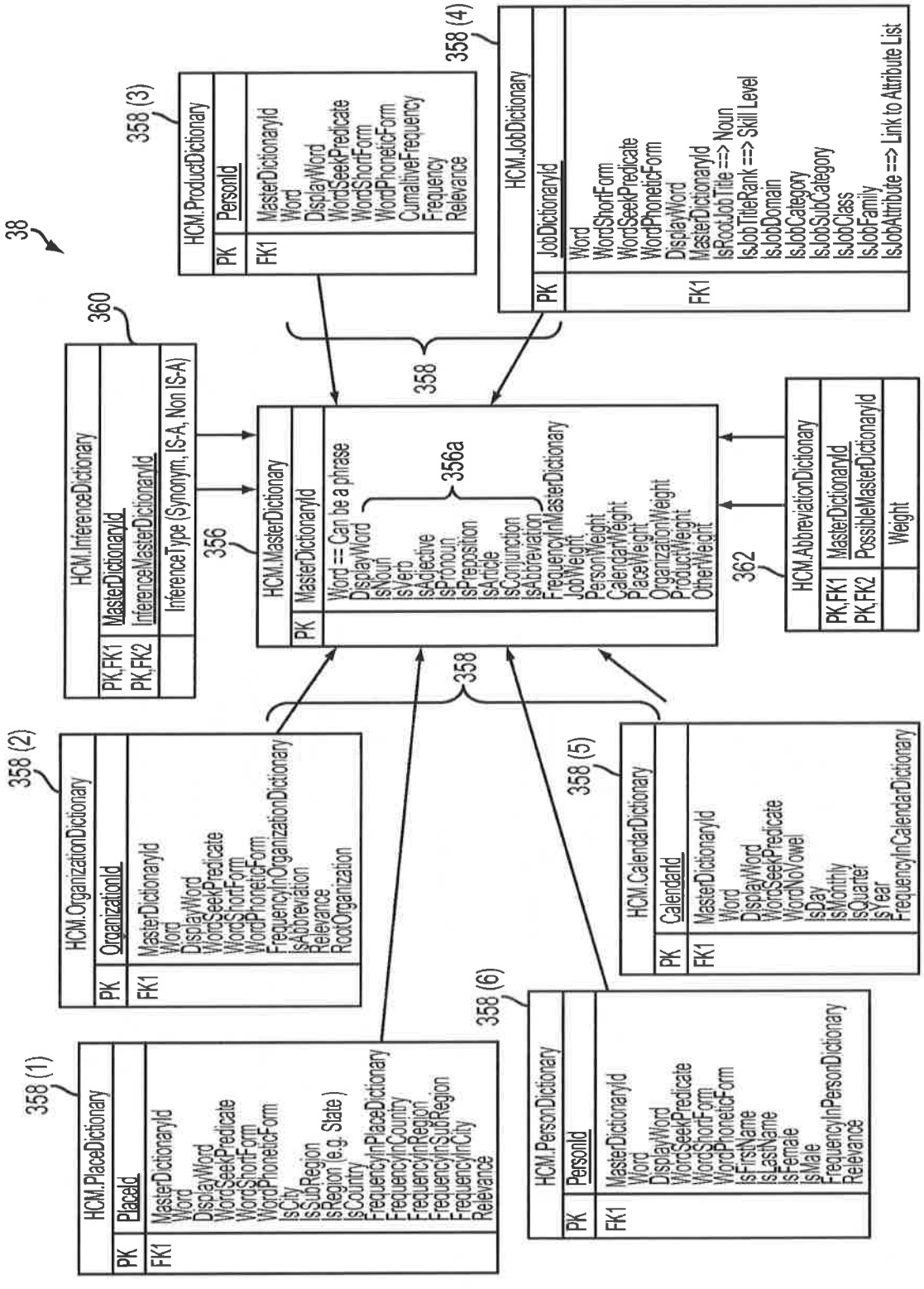

38
358 (1)
HCM.PlaceDictionary
PK PlaceId
FK1 MasterDictionaryId
Word
DisplayWord
WordSeekPredicate
WordShortForm
WordPhoneticForm
IsCity
IsSubRegion
IsRegion (e.g. State)
IsCountry
FrequencyInPlaceDictionary
FrequencyInCountry
FrequencyInRegion
FrequencyInSubRegion
FrequencyInCity
Relevance
358 (2)
HCM.OrganizationDictionary
PK OrganizationId
FK1 MasterDictionaryId
Word
DisplayWord
WordSeekPredicate
WordShortForm
WordPhoneticForm
FrequencyInOrganizationDictionary
IsAbbreviation
Relevance
RootOrganization
358 (3)
HCM.ProductDictionary
PK PersonId
FK1 MasterDictionaryId
Word
DisplayWord
WordSeekPredicate
WordShortForm
WordPhoneticForm
CumulativeFrequency
Frequency
Relevance
358 (4)
HCM.JobDictionary
PK JobDictionaryId
Word
WordShortForm
WordSeekPredicate
WordPhoneticForm
DisplayWord
FK1 MasterDictionaryId
IsRootJobTitle ==> Noun
IsJobTitleRank ==> Skill Level
IsJobDomain
IsJobCategory
IsJobSubCategory
IsJobClass
IsJobFamily
IsJobAttribute ==> Link to Attribute List
358 (5)
HCM.CalendarDictionary
PK CalendarId
FK1 MasterDictionaryId
Word
DisplayWord
WordSeekPredicate
WordNoVowel
IsDay
IsMonthly
IsQuarter
IsYear
FrequencyInCalendarDictionary
358 (6)
HCM.PersonDictionary
PK PersonId
FK1 MasterDictionaryId
Word
DisplayWord
WordSeekPredicate
WordShortForm
WordPhoneticForm
IsFirstName
IsLastName
IsFemale
IsMale
FrequencyInPersonDictionary
Relevance
360
HCM.InferenceDictionary
PK,FK1 MasterDictionaryId
PK,FK2 InferenceMasterDictionaryId
InferenceType (Synonym, IS-A, Non IS-A)
356
HCM.MasterDictionary
PK MasterDictionaryId
Word == Can be a phrase
DisplayWord
IsNoun
IsVerb
IsAdjective
IsPronoun
IsPreposition
IsArticle
IsConjunction
IsAbbreviation
FrequencyInMasterDictionary
JobWeight
PersonWeight
CalendarWeight
PlaceWeight
OrganizationWeight
ProductWeight
OtherWeight
356a
358
362
HCM.AbbreviationDictionary
PK,FK1 MasterDictionaryId
PK,FK2 PossibleMasterDictionaryId
Weight

FIG. 3

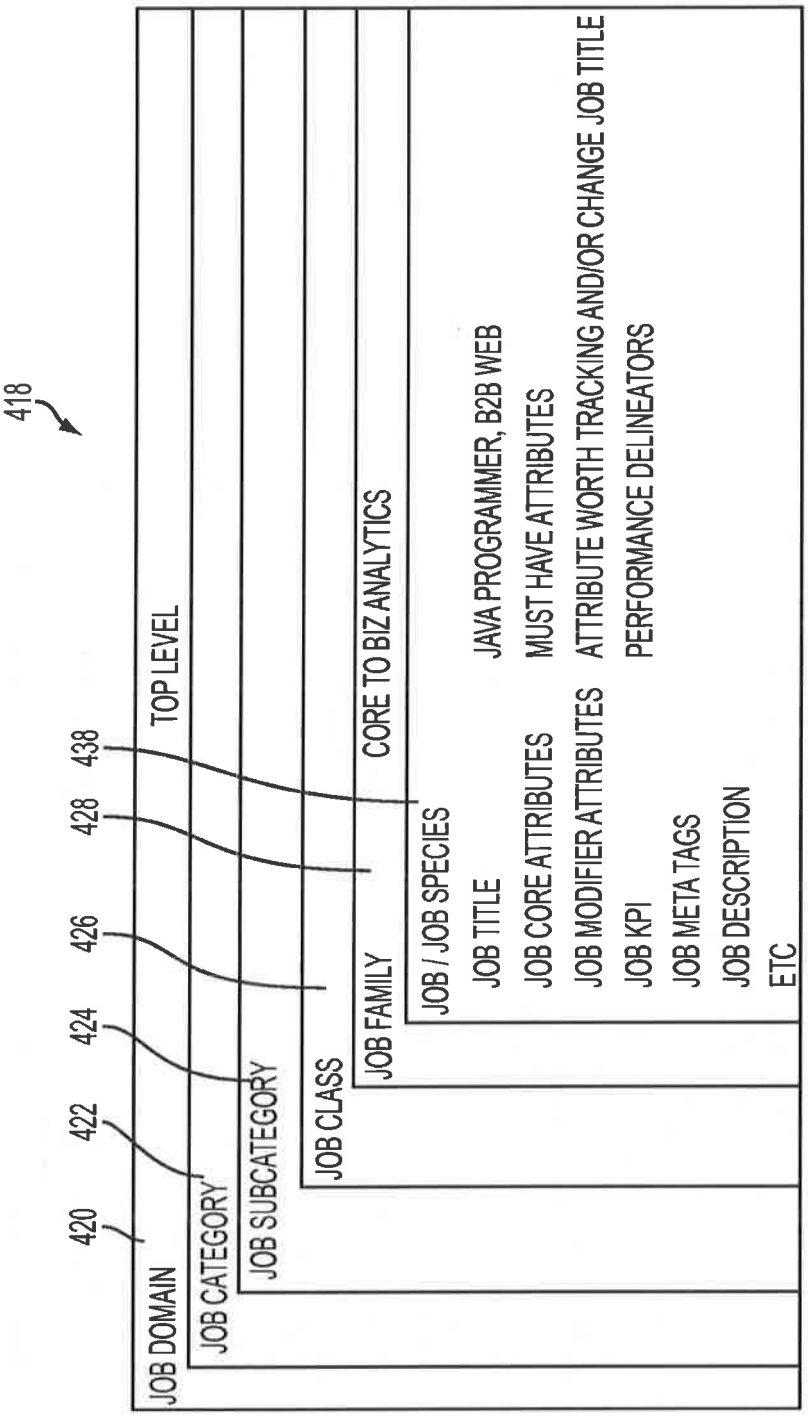

418
420
422
424
426
428
438
JOB DOMAIN
JOB CATEGORY
JOB SUBCATEGORY
JOB CLASS
JOB FAMILY
JOB / JOB SPECIES
TOP LEVEL
CORE TO BIZ ANALYTICS
JOB TITLE
JOB CORE ATTRIBUTES
JOB MODIFIER ATTRIBUTES
JOB KPI
JOB META TAGS
JOB DESCRIPTION
ETC
JAVA PROGRAMMER, B2B WEB
MUST HAVE ATTRIBUTES
ATTRIBUTE WORTH TRACKING AND/OR CHANGE JOB TITLE
PERFORMANCE DELINEATORS

FIG. 4

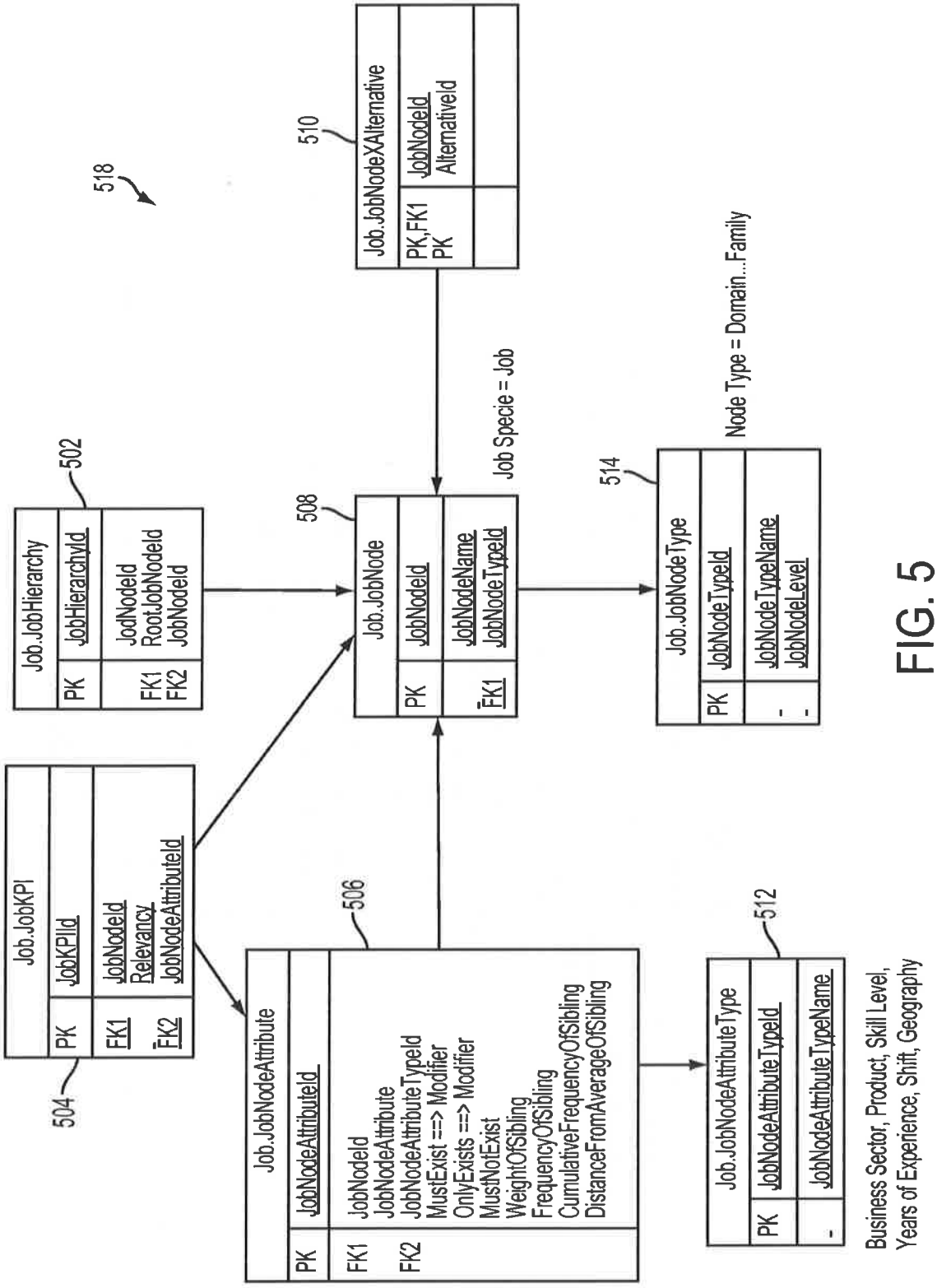

518
510
Job.JobNodeXAlternative
PK,FK1 JobNodeId
PK AlternativeId
502
Job.JobHierarchy
PK JobHierarchyId
JodNodeId
FK1 RootJobNodeId
FK2 JobNodeId
508
Job.JobNode
PK JobNodeId
JobNodeName
FK1 JobNodeTypeId
Job Specie = Job
514
Job.JobNodeType
PK JobNodeTypeId
JobNodeTypeName
JobNodeLevel
Node Type = Domain...Family
504
Job.JobKPI
PK JobKPIId
FK1 JobNodeId
Relevancy
FK2 JobNodeAttributeId
506
Job.JobNodeAttribute
PK JobNodeAttributeId
FK1 JobNodeId
JobNodeAttribute
FK2 JobNodeAttributeTypeId
MustExist ==> Modifier
OnlyExists ==> Modifier
MustNotExist
WeightOfSibling
FrequencyOfSibling
CumulativeFrequencyOfSibling
DistanceFromAverageOfSibling
512
Job.JobNodeAttributeType
PK JobNodeAttributeTypeId
- JobNodeAttributeTypeName
Business Sector, Product, Skill Level,
Years of Experience, Shift, Geography

FIG. 5

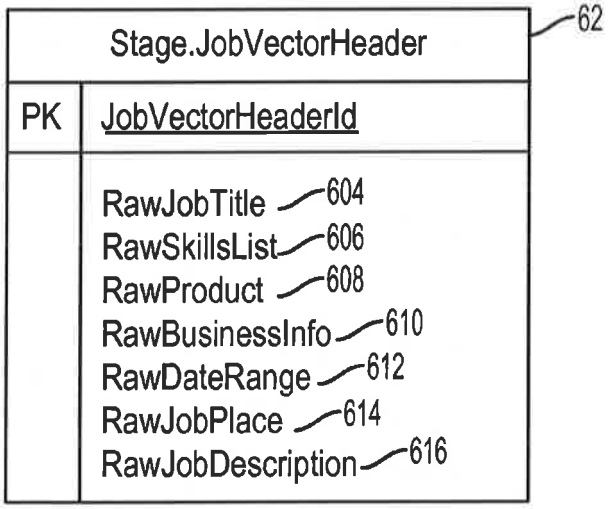

Stage.JobVectorHeader
62
PK
JobVectorHeaderId
RawJobTitle
604
RawSkillsList
606
RawProduct
608
RawBusinessInfo
610
RawDateRange
612
RawJobPlace
614
RawJobDescription
616

FIG. 6

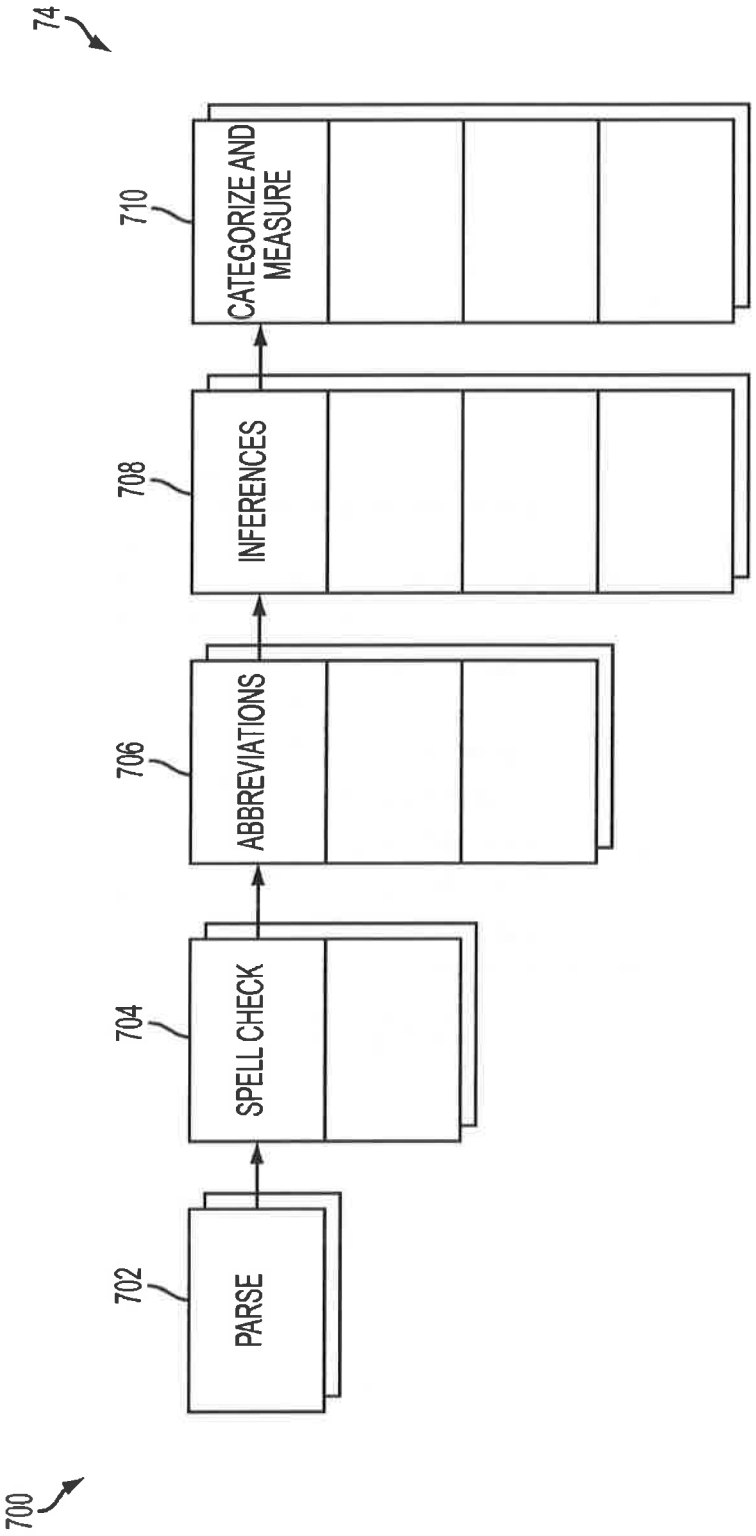

74
710
CATEGORIZE AND MEASURE
708
INFERENCES
706
ABBREVIATIONS
704
SPELL CHECK
702
PARSE
700

FIG. 7

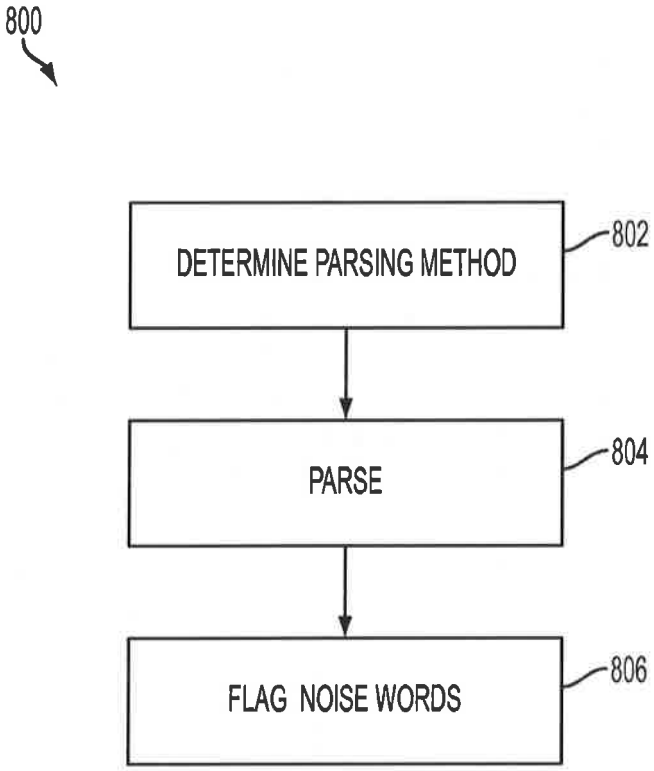

800
DETERMINE PARSING METHOD
802
PARSE
804
FLAG NOISE WORDS
806

FIG. 8A

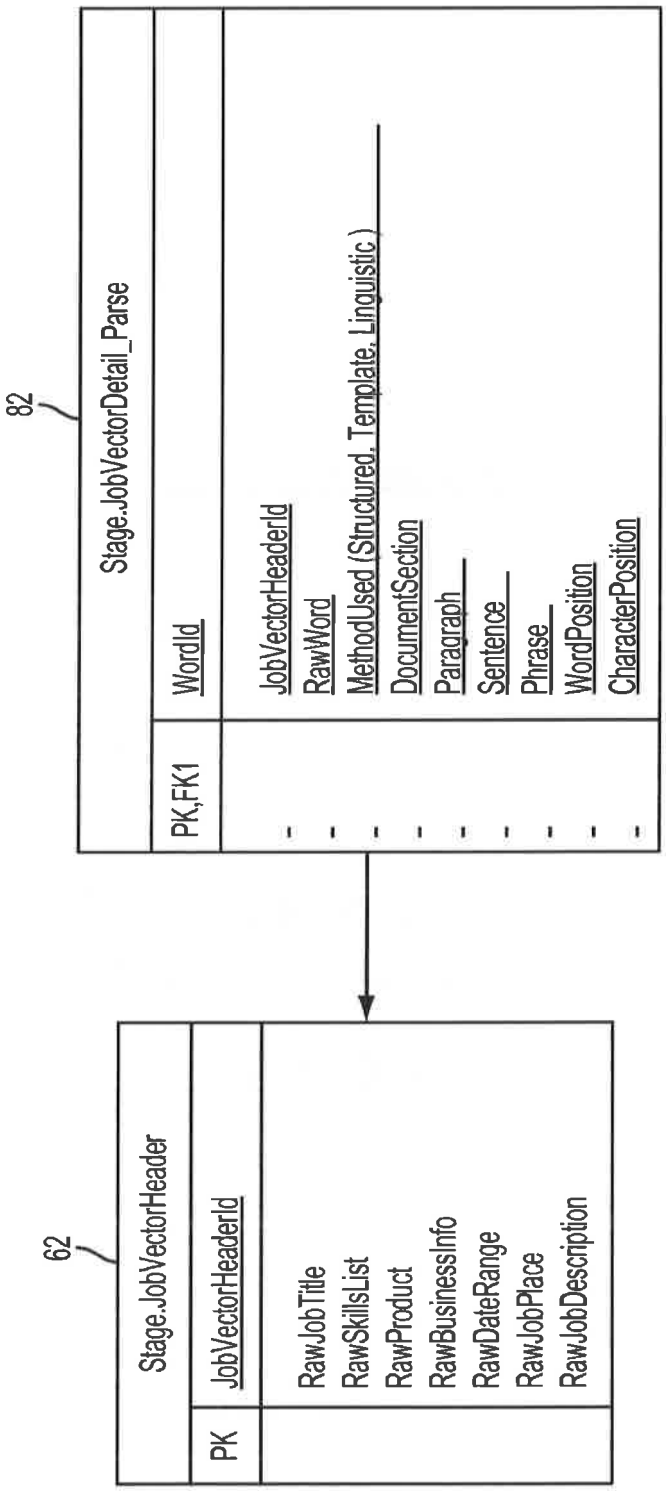

82
Stage.JobVectorDetail_Parse
PK,FK1
WordId
JobVectorHeaderId
RawWord
MethodUsed (Structured, Template, Linguistic)
DocumentSection
Paragraph
Sentence
Phrase
WordPosition
CharacterPosition
62
Stage.JobVectorHeader
PK
JobVectorHeaderId
RawJobTitle
RawSkillsList
RawProduct
RawBusinessInfo
RawDateRange
RawJobPlace
RawJobDescription

FIG. 8B

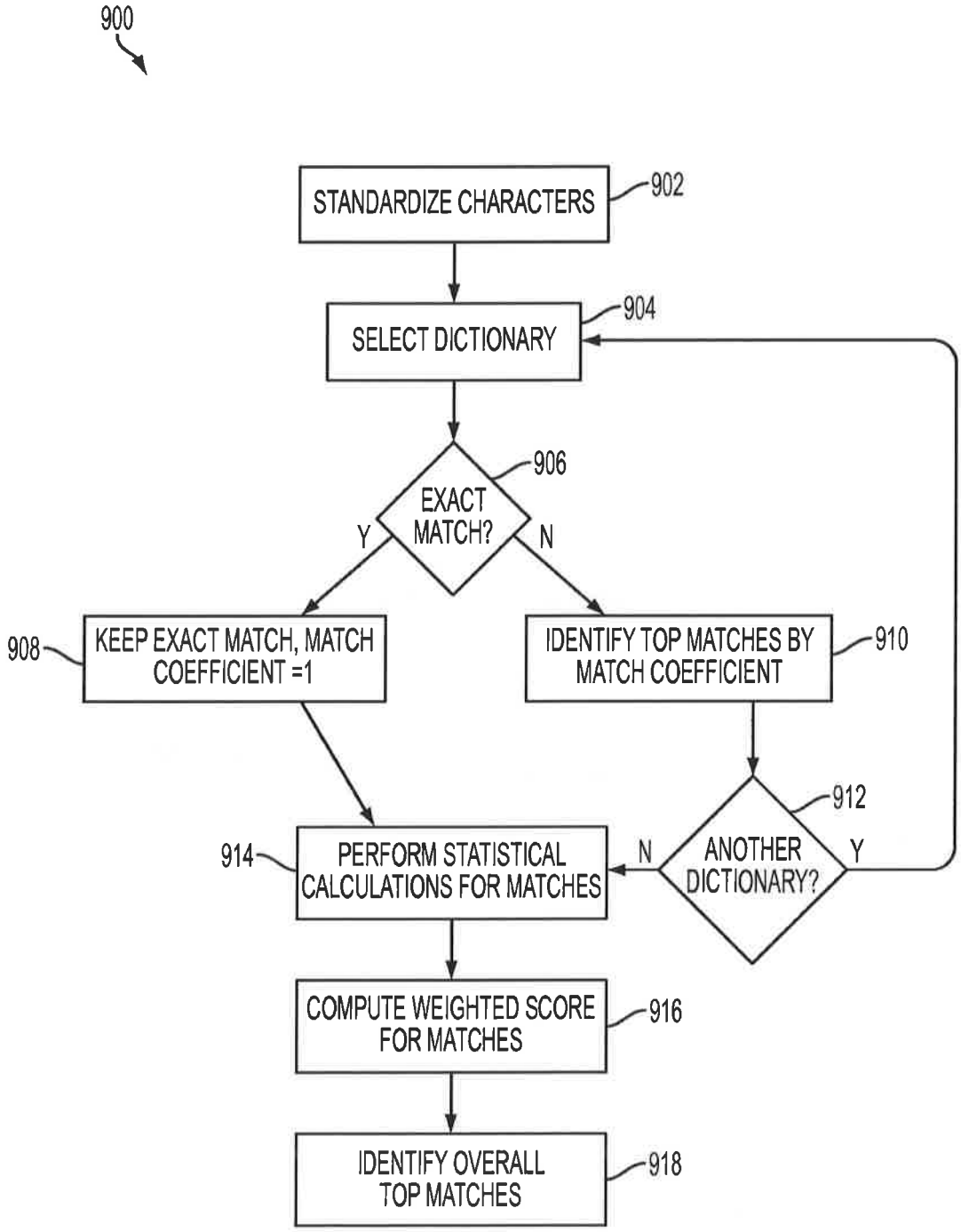

900
STANDARDIZE CHARACTERS
902
SELECT DICTIONARY
904
EXACT MATCH?
906
Y
N
KEEP EXACT MATCH, MATCH COEFFICIENT =1
908
IDENTIFY TOP MATCHES BY MATCH COEFFICIENT
910
ANOTHER DICTIONARY?
912
N
Y
PERFORM STATISTICAL CALCULATIONS FOR MATCHES
914
COMPUTE WEIGHTED SCORE FOR MATCHES
916
IDENTIFY OVERALL TOP MATCHES
918

FIG. 9

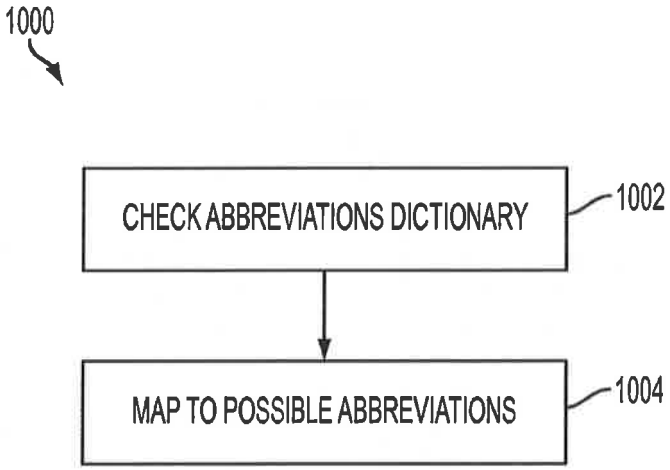

1000
CHECK ABBREVIATIONS DICTIONARY
1002
MAP TO POSSIBLE ABBREVIATIONS
1004

FIG. 10

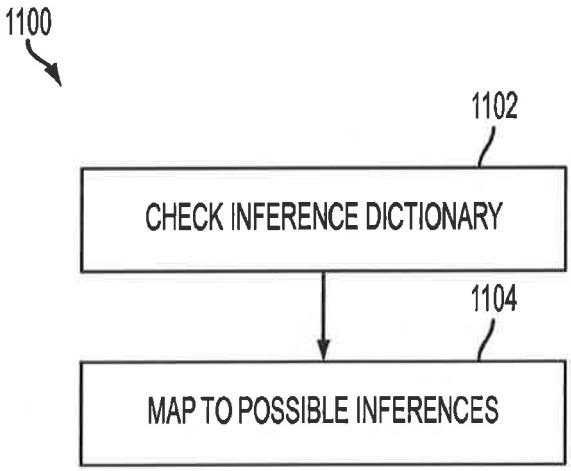

1100
1102
CHECK INFERENCE DICTIONARY
1104
MAP TO POSSIBLE INFERENCES

FIG. 11A

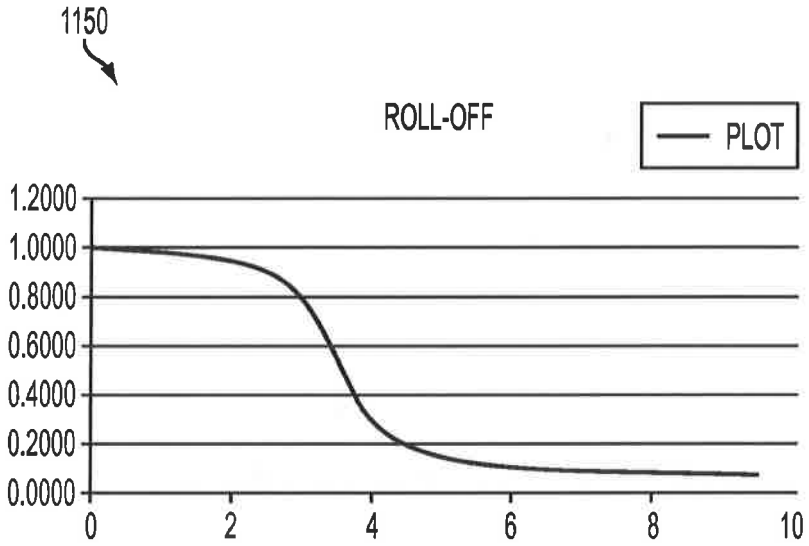

1150
ROLL-OFF
PLOT
1.2000
1.0000
0.8000
0.6000
0.4000
0.2000
0.0000
0
2
4
6
8
10

FIG. 11B

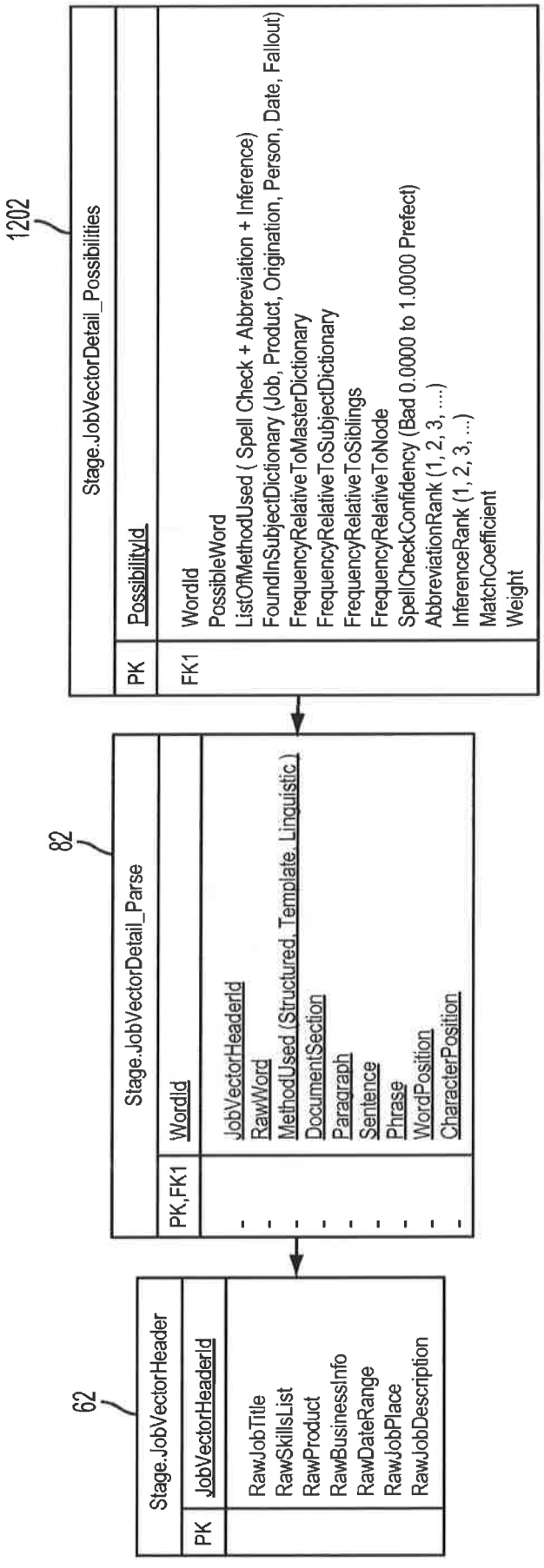

62
Stage.JobVectorHeader
PK
JobVectorHeaderId
RawJobTitle
RawSkillsList
RawProduct
RawBusinessInfo
RawDateRange
RawJobPlace
RawJobDescription
82
Stage.JobVectorDetail_Parse
PK,FK1
WordId
JobVectorHeaderId
RawWord
MethodUsed (Structured_Template_Linguistic)
DocumentSection
Paragraph
Sentence
Phrase
WordPosition
CharacterPosition
1202
Stage.JobVectorDetail_Possibilities
PK
PossibilityId
FK1
WordId
PossibleWord
ListOfMethodUsed (Spell Check + Abbreviation + Inference)
FoundInSubjectDictionary (Job, Product, Origination, Person, Date, Fallout)
FrequencyRelativeToMasterDictionary
FrequencyRelativeToSubjectDictionary
FrequencyRelativeToSiblings
FrequencyRelativeToNode
SpellCheckConfidency (Bad 0.0000 to 1.0000 Prefect)
AbbreviationRank (1, 2, 3, ...)
InferenceRank (1, 2, 3, ...)
MatchCoefficient
Weight

FIG. 12

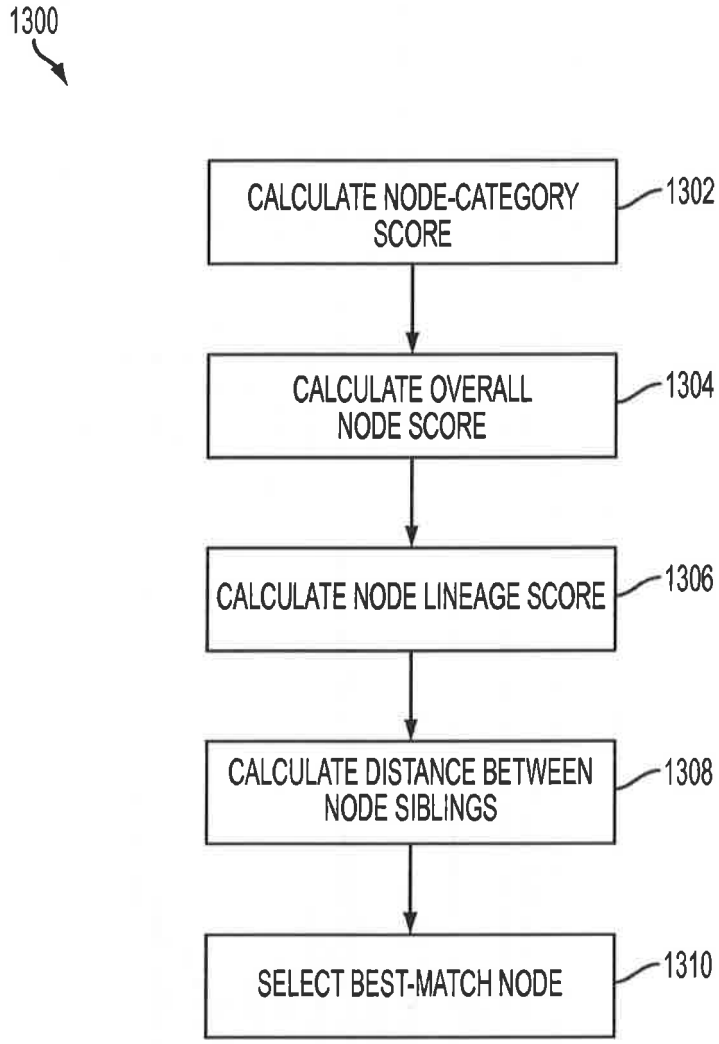

1300
CALCULATE NODE-CATEGORY SCORE
1302
CALCULATE OVERALL NODE SCORE
1304
CALCULATE NODE LINEAGE SCORE
1306
CALCULATE DISTANCE BETWEEN NODE SIBLINGS
1308
SELECT BEST-MATCH NODE
1310

FIG. 13

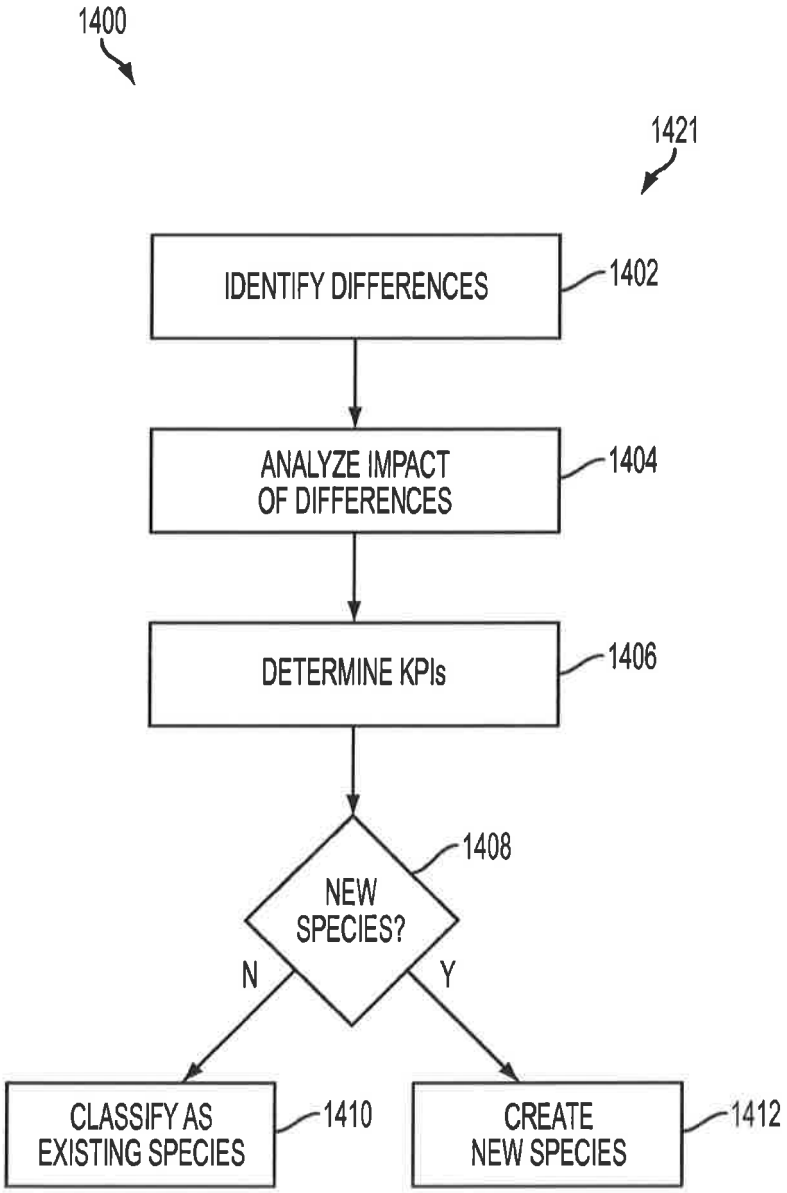

1400
1421
IDENTIFY DIFFERENCES
1402
ANALYZE IMPACT OF DIFFERENCES
1404
DETERMINE KPIs
1406
NEW SPECIES?
1408
N
Y
CLASSIFY AS EXISTING SPECIES
1410
CREATE NEW SPECIES
1412

FIG. 14