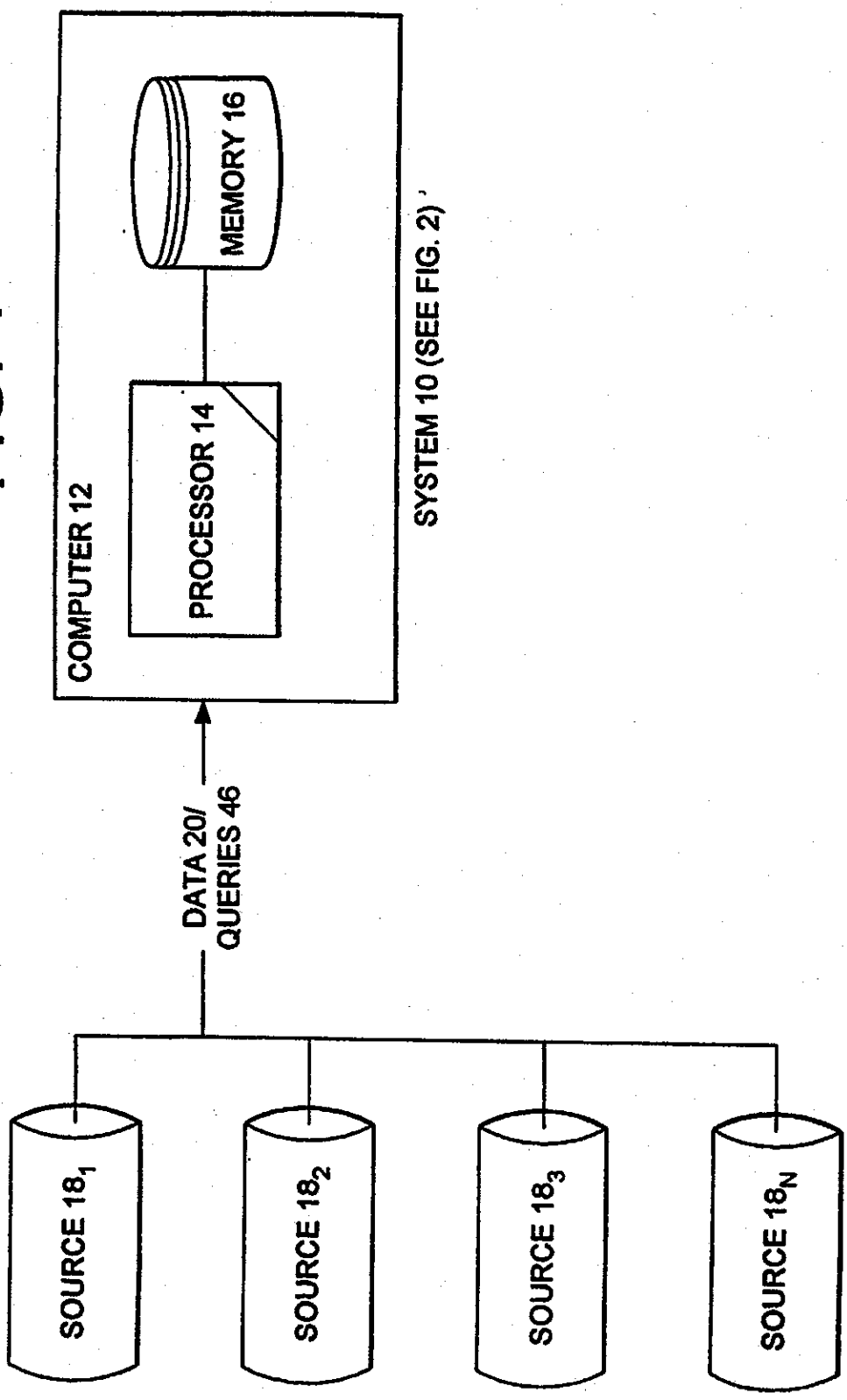
FIG. 1


SYSTEM 10 (SEE FIG. 2)
COMPUTER 12
MEMORY 16
PROCESSOR 14
DATA 20/
QUERIES 46
SOURCE 18$_1$
SOURCE 18$_2$
SOURCE 18$_3$
SOURCE 18$_N$

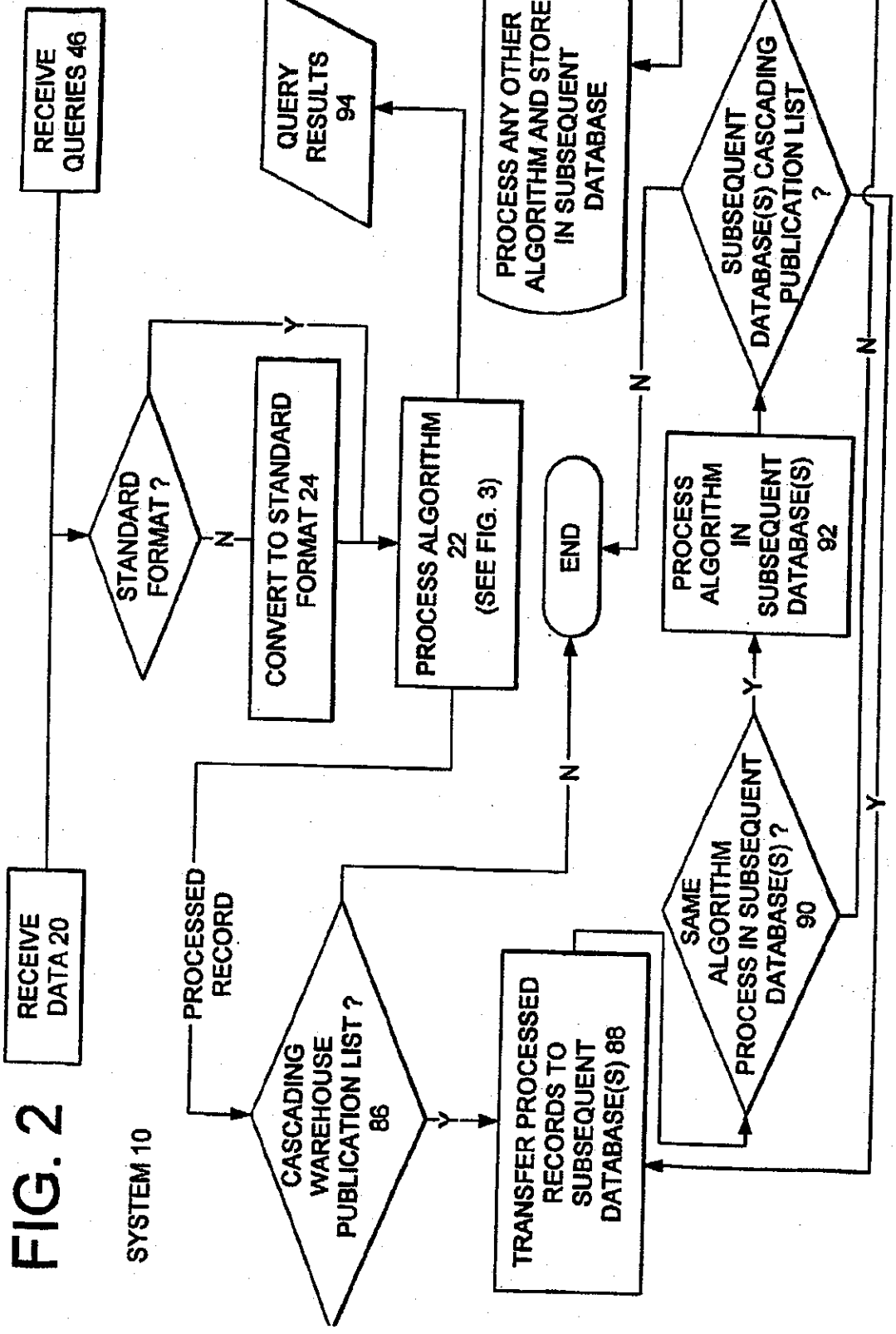
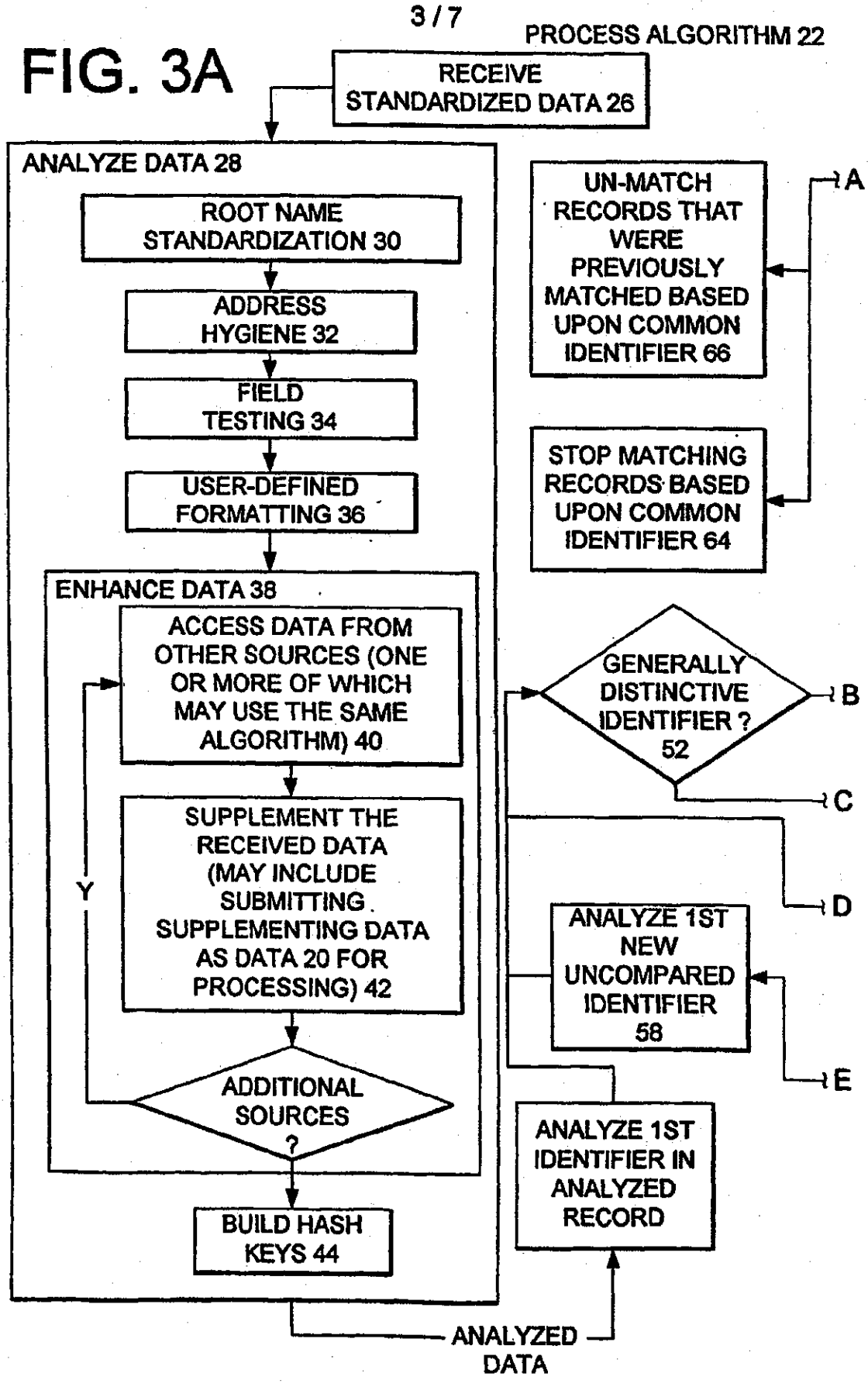


FIG. 2

SYSTEM 10

FIG. 3A


PROCESS ALGORITHM 22
RECEIVE STANDARDIZED DATA 26
ANALYZE DATA 28
ROOT NAME STANDARDIZATION 30
ADDRESS HYGIENE 32
FIELD TESTING 34
USER-DEFINED FORMATTING 36
ENHANCE DATA 38
ACCESS DATA FROM OTHER SOURCES (ONE OR MORE OF WHICH MAY USE THE SAME ALGORITHM) 40
SUPPLEMENT THE RECEIVED DATA (MAY INCLUDE SUBMITTING SUPPLEMENTING DATA AS DATA 20 FOR PROCESSING) 42
ADDITIONAL SOURCES ?
Y
BUILD HASH KEYS 44
ANALYZED DATA
UN-MATCH RECORDS THAT WERE PREVIOUSLY MATCHED BASED UPON COMMON IDENTIFIER 66
A
STOP MATCHING RECORDS BASED UPON COMMON IDENTIFIER 64
GENERALLY DISTINCTIVE IDENTIFIER ? 52
B
C
D
E
ANALYZE 1ST NEW UNCOMPARED IDENTIFIER 58
ANALYZE 1ST IDENTIFIER IN ANALYZED RECORD

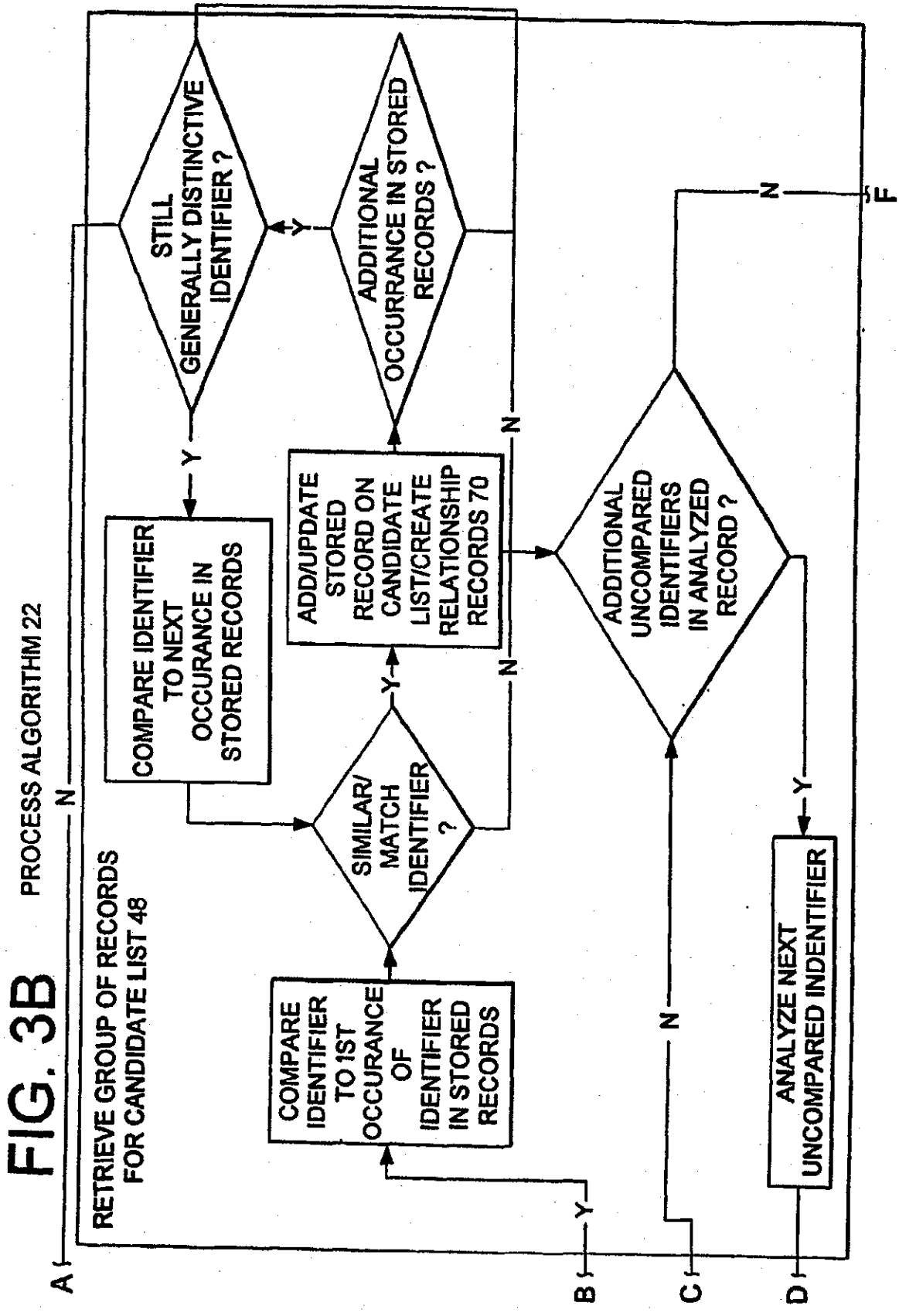

PROCESS ALGORITHM 22
RETRIEVE GROUP OF RECORDS FOR CANDIDATE LIST 48
COMPARE IDENTIFIER TO 1ST OCCURANCE OF IDENTIFIER IN STORED RECORDS
SIMILAR/ MATCH IDENTIFIER ?
COMPARE IDENTIFIER TO NEXT OCCURANCE IN STORED RECORDS
STILL GENERALLY DISTINCTIVE IDENTIFIER ?
ADDITIONAL OCCURRANCE IN STORED RECORDS ?
ADD/UPDATE STORED RECORD ON CANDIDATE LIST/CREATE RELATIONSHIP RECORDS 70
ADDITIONAL UNCOMPARED IDENTIFIERS IN ANALYZED RECORD ?
ANALYZE NEXT UNCOMPARED INDENTIFIER
A
B
C
D
E
F
Y
N

FIG. 3B

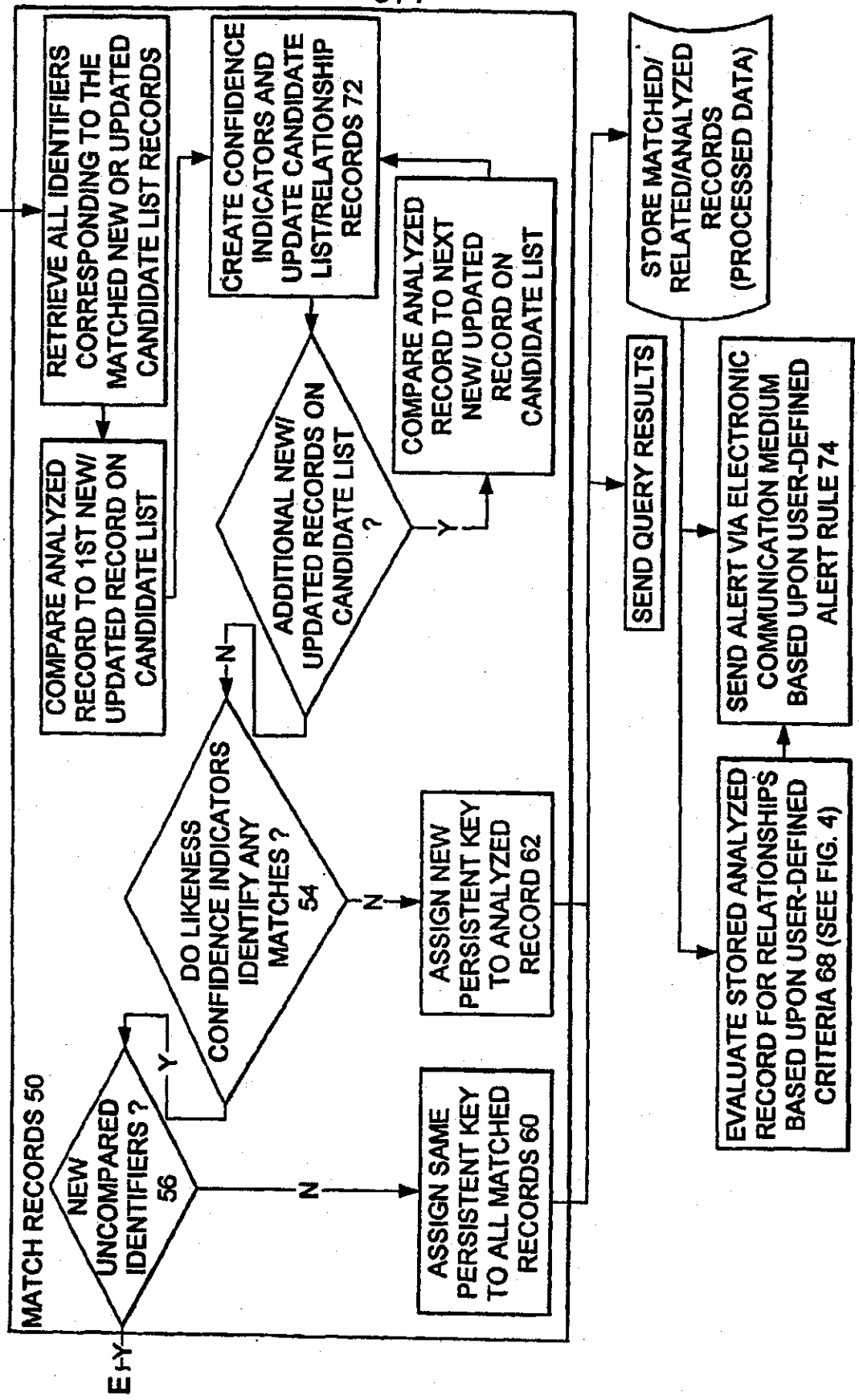
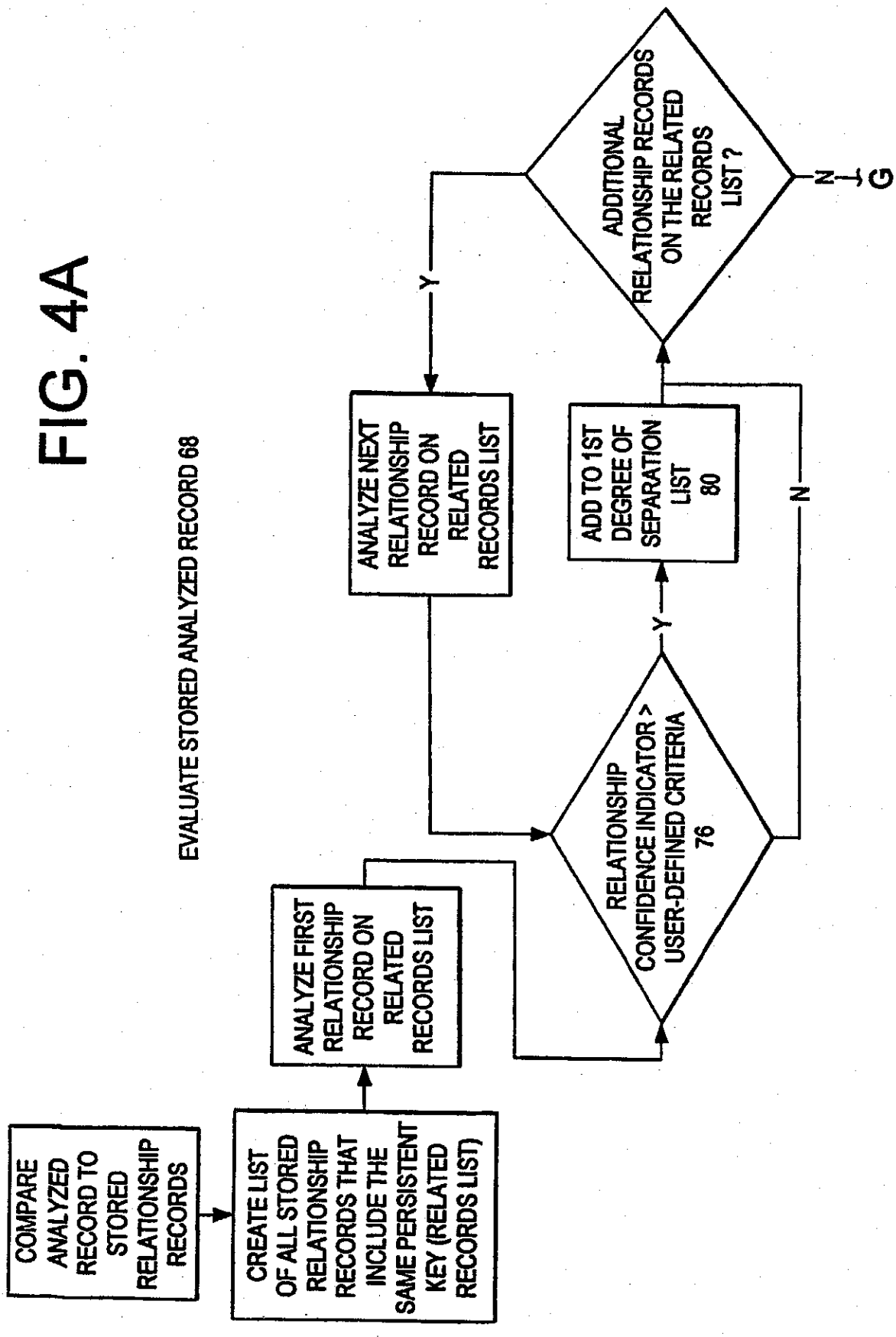

PROCESS ALGORITHM 22
MATCH RECORDS 50
F
RETRIEVE ALL IDENTIFIERS CORRESPONDING TO THE MATCHED NEW OR UPDATED CANDIDATE LIST RECORDS
COMPARE ANALYZED RECORD TO 1ST NEW/ UPDATED RECORD ON CANDIDATE LIST
CREATE CONFIDENCE INDICATORS AND UPDATE CANDIDATE LIST/RELATIONSHIP RECORDS 72
ADDITIONAL NEW/ UPDATED RECORDS ON CANDIDATE LIST ?
COMPARE ANALYZED RECORD TO NEXT NEW/ UPDATED RECORD ON CANDIDATE LIST
DO LIKENESS CONFIDENCE INDICATORS IDENTIFY ANY MATCHES ? 54
ASSIGN NEW PERSISTENT KEY TO ANALYZED RECORD 62
NEW UNCOMPARED IDENTIFIERS ? 56
ASSIGN SAME PERSISTENT KEY TO ALL MATCHED RECORDS 60
E
STORE MATCHED/ RELATED/ANALYZED RECORDS (PROCESSED DATA)
SEND QUERY RESULTS
SEND ALERT VIA ELECTRONIC COMMUNICATION MEDIUM BASED UPON USER-DEFINED ALERT RULE 74
EVALUATE STORED ANALYZED RECORD FOR RELATIONSHIPS BASED UPON USER-DEFINED CRITERIA 68 (SEE FIG. 4)
Y
N

FIG. 3C

FIG. 4A


EVALUATE STORED ANALYZED RECORD 68
COMPARE ANALYZED RECORD TO STORED RELATIONSHIP RECORDS
CREATE LIST OF ALL STORED RELATIONSHIP RECORDS THAT INCLUDE THE SAME PERSISTENT KEY (RELATED RECORDS LIST)
ANALYZE FIRST RELATIONSHIP RECORD ON RELATED RECORDS LIST
RELATIONSHIP CONFIDENCE INDICATOR > USER-DEFINED CRITERIA 76
Y
N
ADD TO 1ST DEGREE OF SEPARATION LIST 80
ANALYZE NEXT RELATIONSHIP RECORD ON RELATED RECORDS LIST
ADDITIONAL RELATIONSHIP RECORDS ON THE RELATED RECORDS LIST ?
Y
N
G

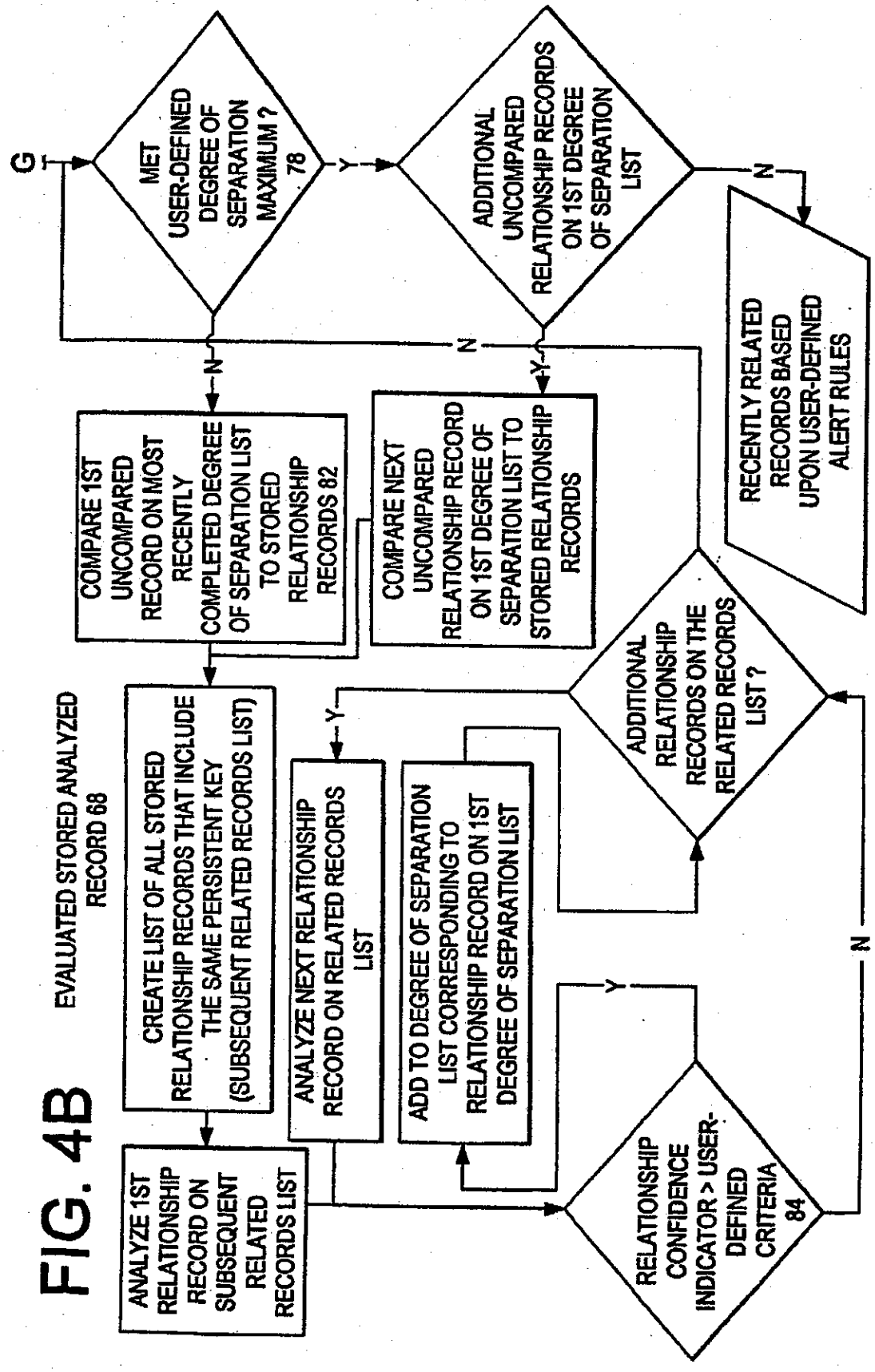

G
MET USER-DEFINED DEGREE OF SEPARATION MAXIMUM ? 78
Y
ADDITIONAL UNCOMPARED RELATIONSHIP RECORDS ON 1ST DEGREE OF SEPARATION LIST
N
RECENTLY RELATED RECORDS BASED UPON USER-DEFINED ALERT RULES
N
Y
COMPARE 1ST UNCOMPARED RECORD ON MOST RECENTLY COMPLETED DEGREE OF SEPARATION LIST TO STORED RELATIONSHIP RECORDS 82
COMPARE NEXT UNCOMPARED RELATIONSHIP RECORD ON 1ST DEGREE OF SEPARATION LIST TO STORED RELATIONSHIP RECORDS
EVALUATED STORED ANALYZED RECORD 68
CREATE LIST OF ALL STORED RELATIONSHIP RECORDS THAT INCLUDE THE SAME PERSISTENT KEY (SUBSEQUENT RELATED RECORDS LIST)
ANALYZE 1ST RELATIONSHIP RECORD ON SUBSEQUENT RELATED RECORDS LIST
ANALYZE NEXT RELATIONSHIP RECORD ON RELATED RECORDS LIST
ADD TO DEGREE OF SEPARATION LIST CORRESPONDING TO RELATIONSHIP RECORD ON 1ST DEGREE OF SEPARATION LIST
ADDITIONAL RELATIONSHIP RECORDS ON THE RELATED RECORDS LIST ?
Y
N
RELATIONSHIP CONFIDENCE INDICATOR > USER-DEFINED CRITERIA 84
Y
N

FIG. 4B