

FIG. 1

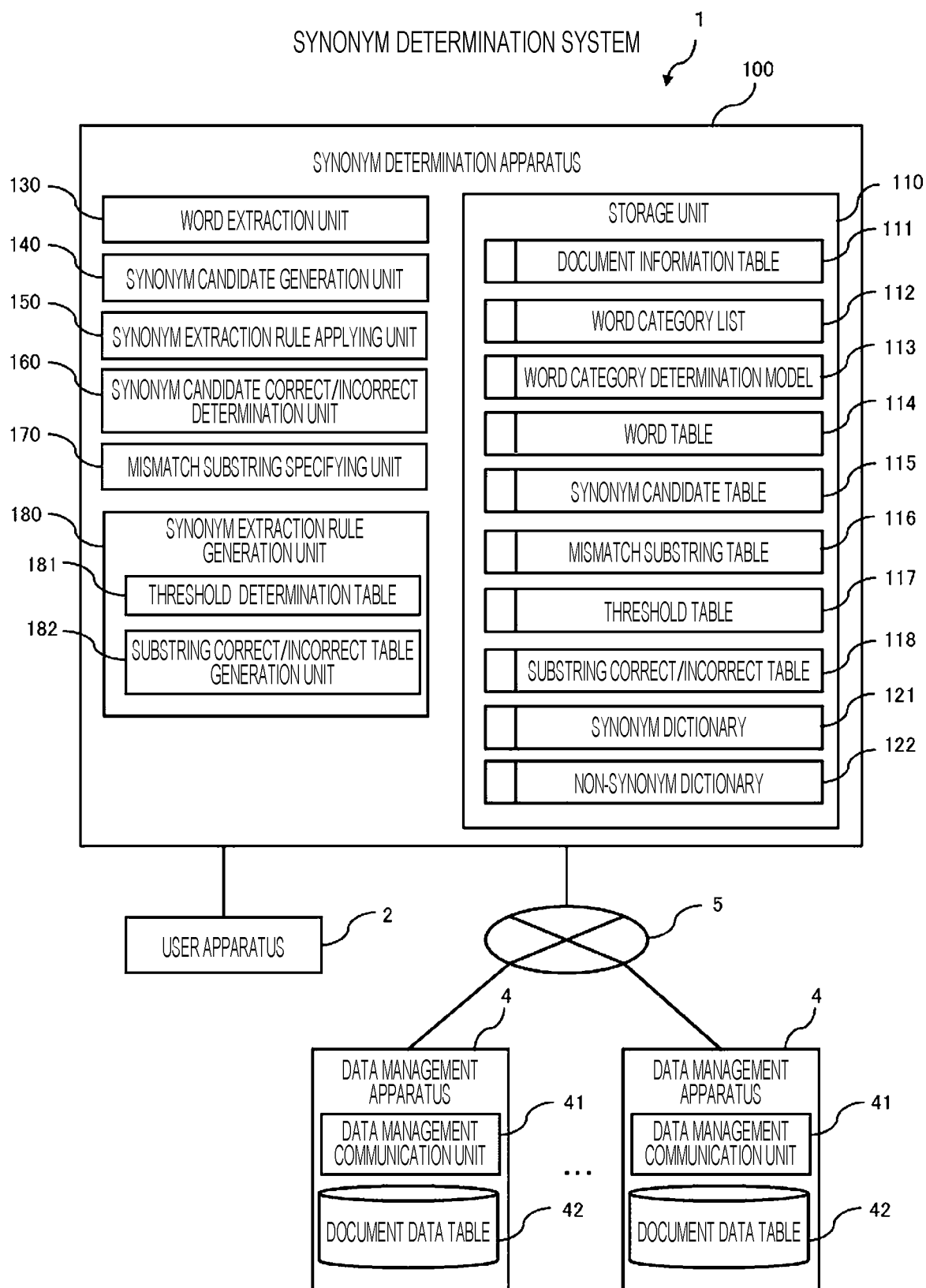


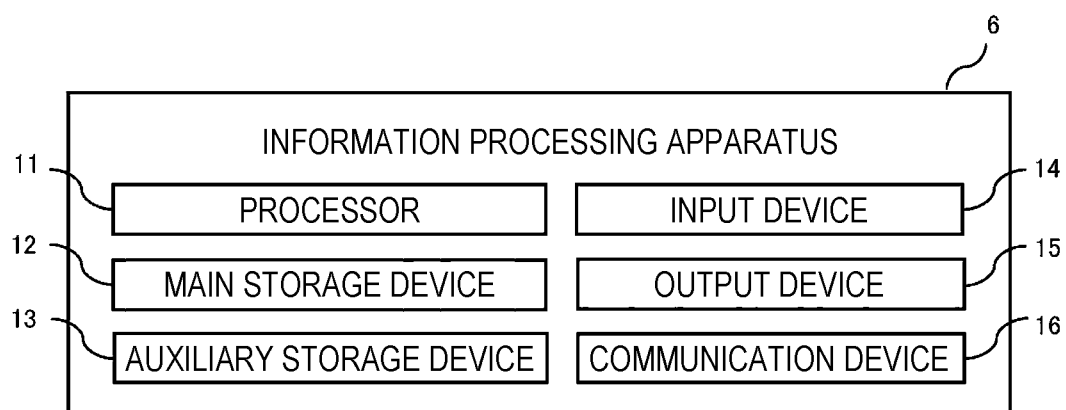
FIG. 2

FIG. 3

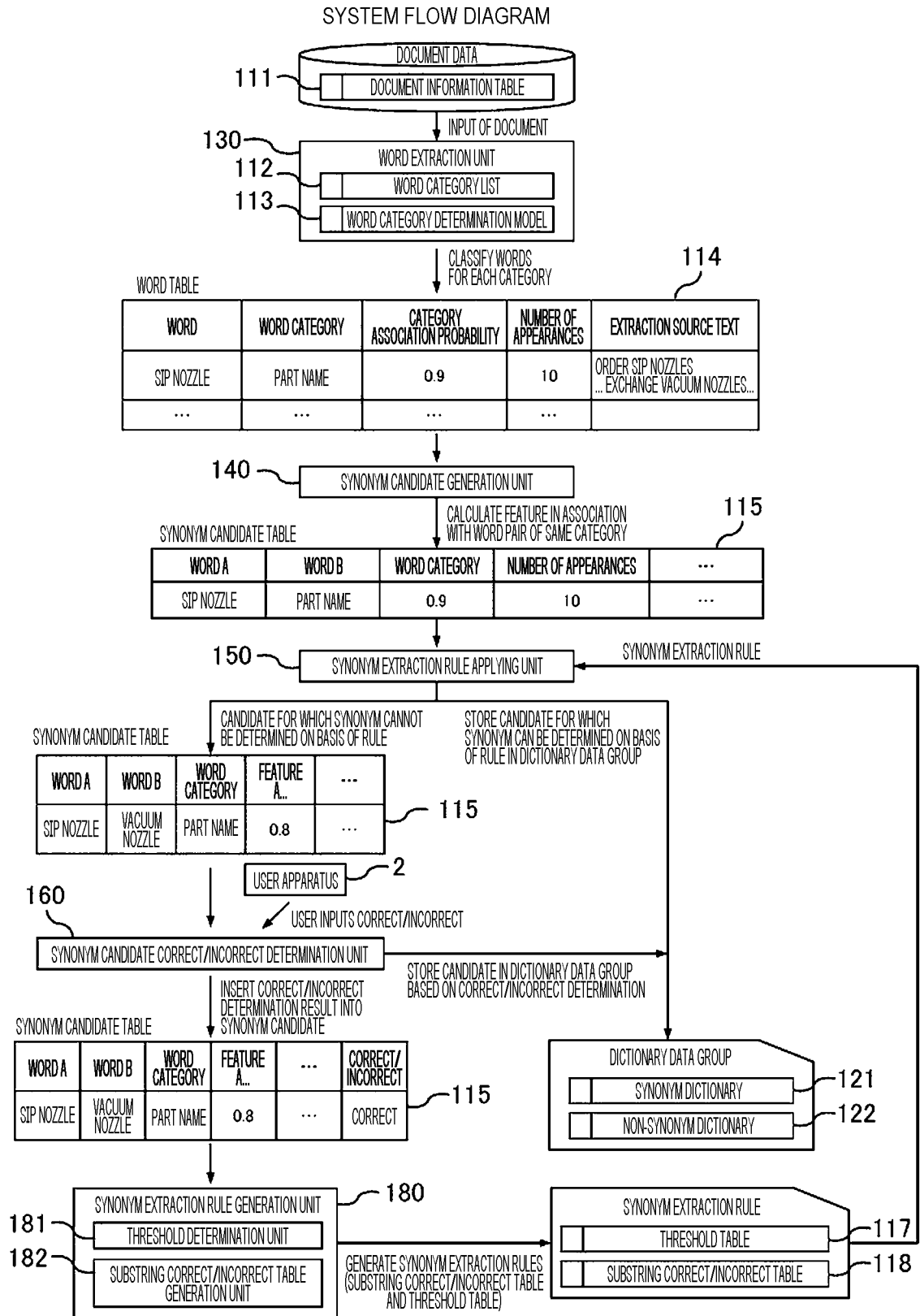


FIG. 4

DOCUMENT INFORMATION TABLE

DOCUMENT ID	TEXT
3000113032	ORDER SIP NOZZLES... EXCHANGE VACUUM NOZZLES...
3000112030	AT TIME OF STARTING PC... DUE TO FAILURE IN PERSONAL COMPUTER...
3000132033	ERROR OCCURS IN DEVICE...
:	:

FIG. 5

WORD CATEGORY LIST

CATEGORY
PART NAME
PHENOMENON NAME
CAUSE NAME
:

FIG. 6

WORD TABLE

WORD	WORD CATEGORY	CATEGORY ASSOCIATION PROBABILITY	NUMBER OF APPEARANCES	EXTRACTION SOURCE TEXT
SIP NOZZLE	PART NAME	0.9	10	ORDER SIP NOZZLES... EXCHANGE VACUUM NOZZLES...
PERSONAL COMPUTER	PART NAME	0.87	19	AT TIME OF STARTING PC...DUE TO FAILURE IN PERSONAL COMPUTER...
ERROR	PHENOMENON NAME	0.9	23	ERROR OCCURS IN DEVICE...
:	:	:	:	:

FIG. 7
SYNONYM CANDIDATE TABLE 115

WORD A	WORD B	CORRECT/ INCORRECT INFORMATION	WORD CATEGORY	RELATIONSHIP FEATURE							
				CO-OCCURRENCE FREQUENCY	EDITING DISTANCE	CATEGORY ASSOCIATION PROBABILITY		NUMBER OF APPEARANCES		EXTRACTION SOURCE TEXT	
						WORD A	WORD B	WORD A	WORD B	WORD A	WORD B
SIP NOZZLE	VACUUM NOZZLE	CORRECT	PART NAME	0.9	0.6	0.9	0.9	10	20	EXCHANGE SIP NOZZLES...	FAILURE IN VACUUM NOZZLE...
PC	PERSONAL COMPUTER	CORRECT	PART NAME	0.8	0.5	0.87	0.85	10	20	PC FAILS...	PERSONAL COMPUTER STARTS...
A NOZZLE	A TUBE	INCORRECT	PART NAME	0.5	0.0	0.9	0.5	10	20	EXCHANGE A NOZZLES...	EXCHANGE A TUBES...
HOLE	HOLE	UNKNOWN	PHENOMENON NAME	0.5	0.0	0.9	0.5	10	20	HOLE IS EMPTY...	HOLE OCCURS...
:	:	:	:	:	:	:	:	:	:	:	:

FIG. 8
MISMATCH SUBSTRING TABLE 116

SUBSTRING A	SUBSTRING B
SIP	VACUUM
NOZZLE	TUBE
:	:

6/19

FIG. 9

THRESHOLD TABLE 117

1171 WORD CATEGORY	1172 CATEGORY ASSOCIATION PROBABILITY THRESHOLD	1173 APPEARANCE NUMBER THRESHOLD	1174 CO-OCCURRENCE FREQUENCY THRESHOLD	1175 EDITING DISTANCE THRESHOLD
PART NAME	0.9	10	0.8	5
PHENOMENON NAME	0.7	9	0.7	2
:	:	:	:	:

FIG. 10SUBSTRING
CORRECT/INCORRECT TABLE 118

1181 WORD CATEGORY	1182 SUBSTRING A	1183 SUBSTRING B	1184 CORRECT/INCORRECT INFORMATION
PART NAME	SIP	VACUUM	CORRECT
PART NAME	NOZZLE	TUBE	INCORRECT
:	:	:	:

FIG. 11

SYNONYM DICTIONARY 121

1211 WORD	1212 SYNONYM	1213 WORD CATEGORY
ERROR	ALARM	PHENOMENON NAME
PC	PERSONAL COMPUTER	PART NAME
SIP NOZZLE	VACUUM NOZZLE	PART NAME
:	:	:

FIG. 12

NON-SYNONYM DICTIONARY

122

1221 1222 1223

WORD	NON-SYNONYM	WORD CATEGORY
A TUBE	A NOZZLE	PART NAME
DATA	PERSONAL COMPUTER	PART NAME
BREAKAGE	WATER LEAKAGE	PHENOMENON NAME
:	:	:

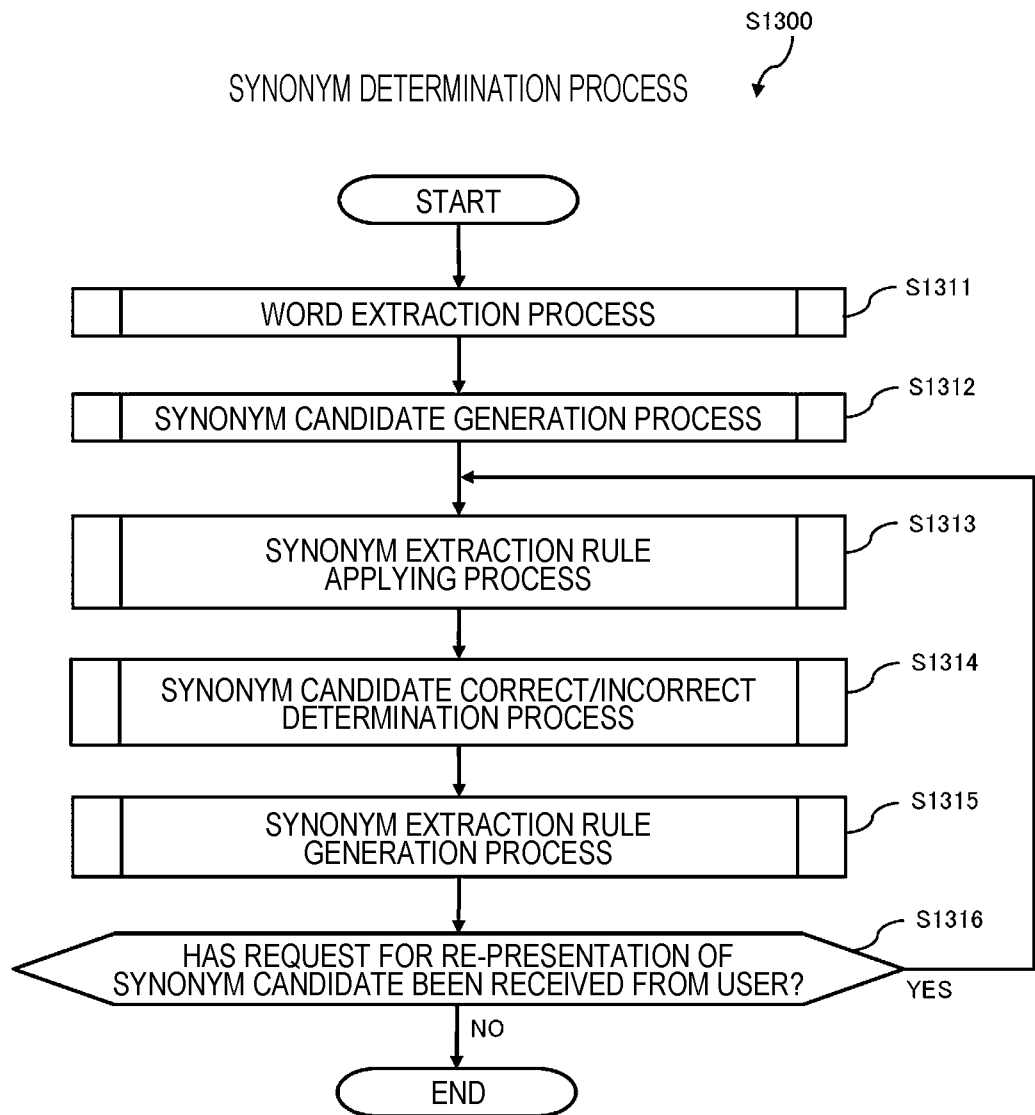
FIG. 13

FIG. 14

WORD EXTRACTION PROCESS

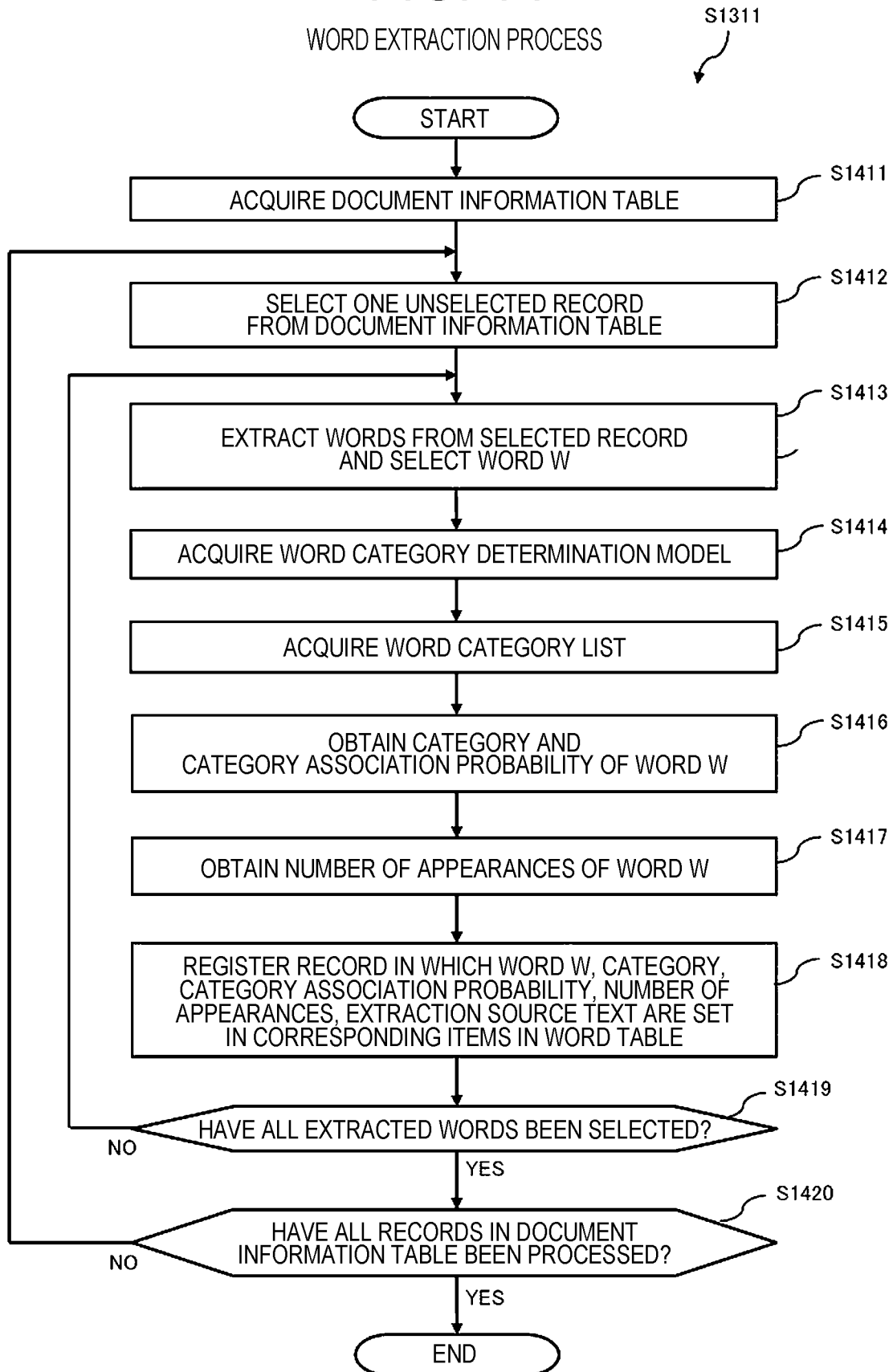


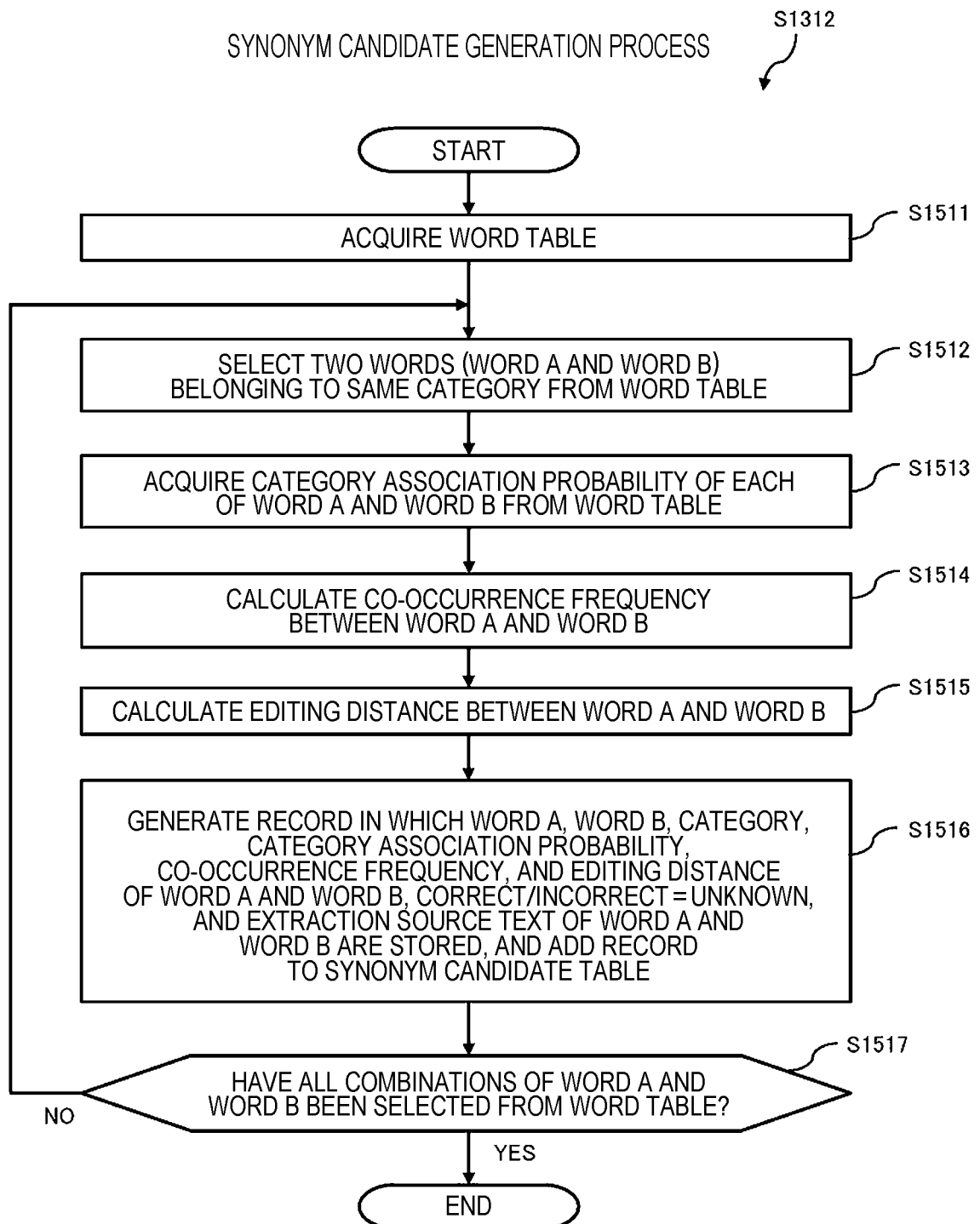
FIG. 15

FIG. 16

SYNONYM EXTRACTION RULE APPLYING PROCESS

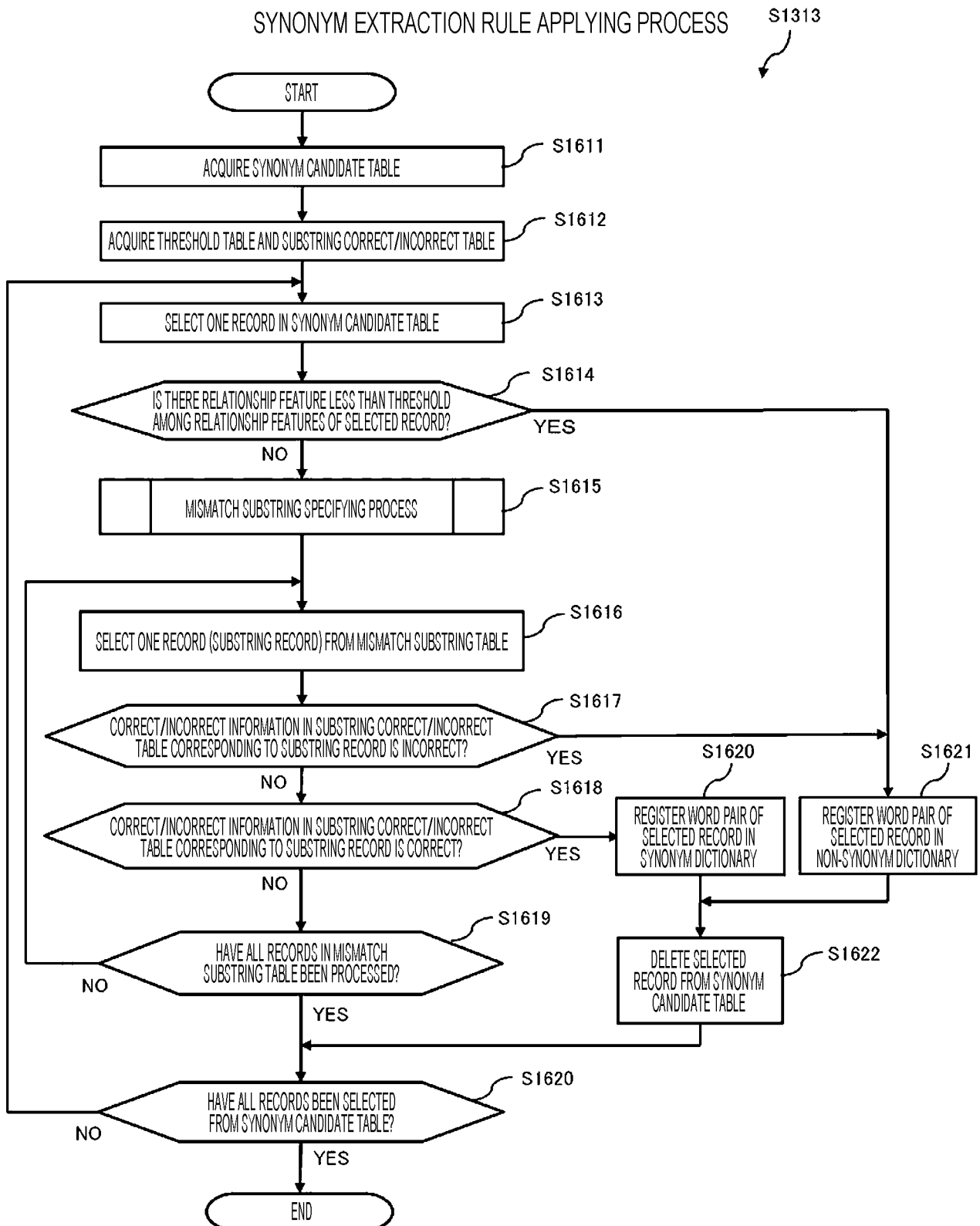


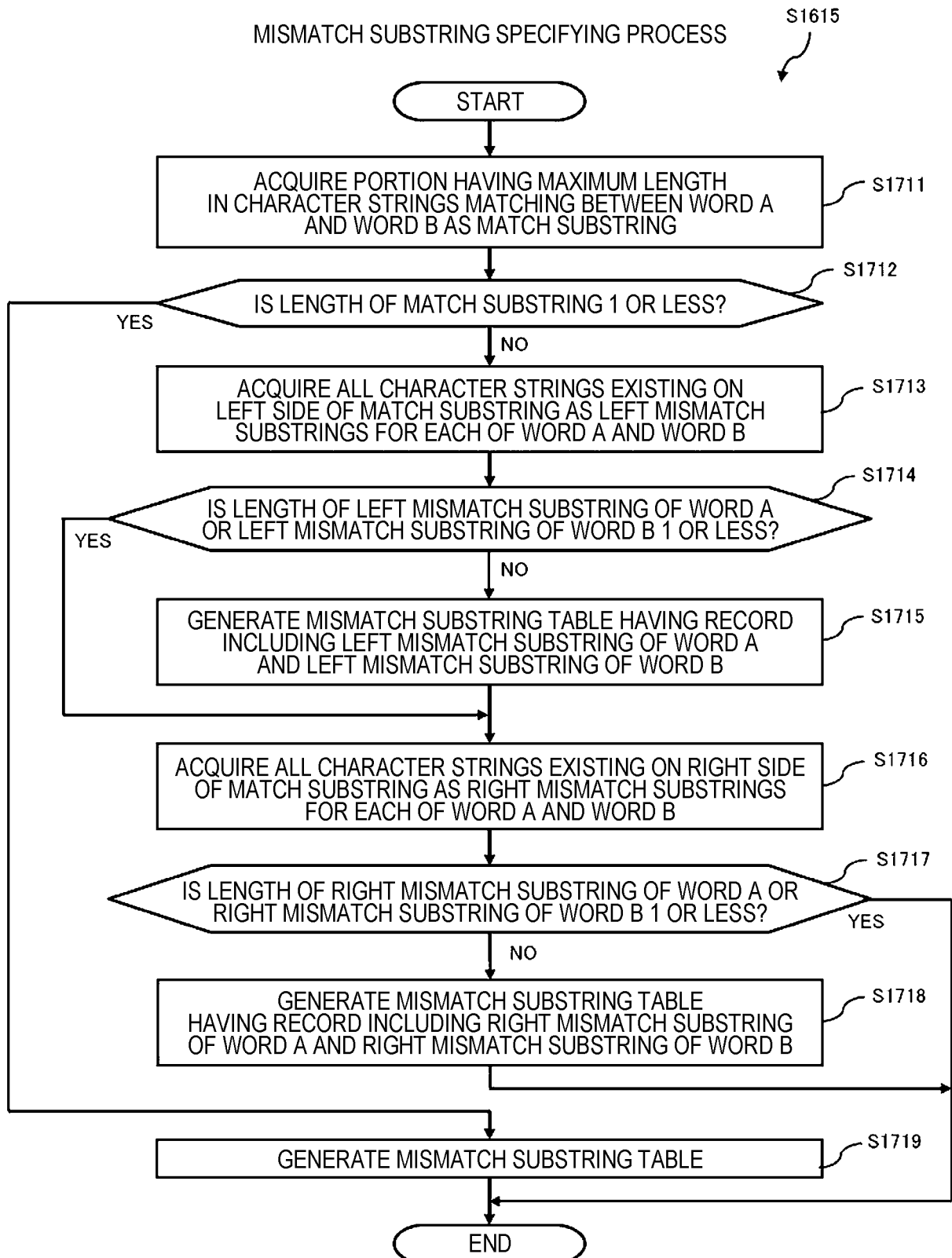
FIG. 17

FIG. 18

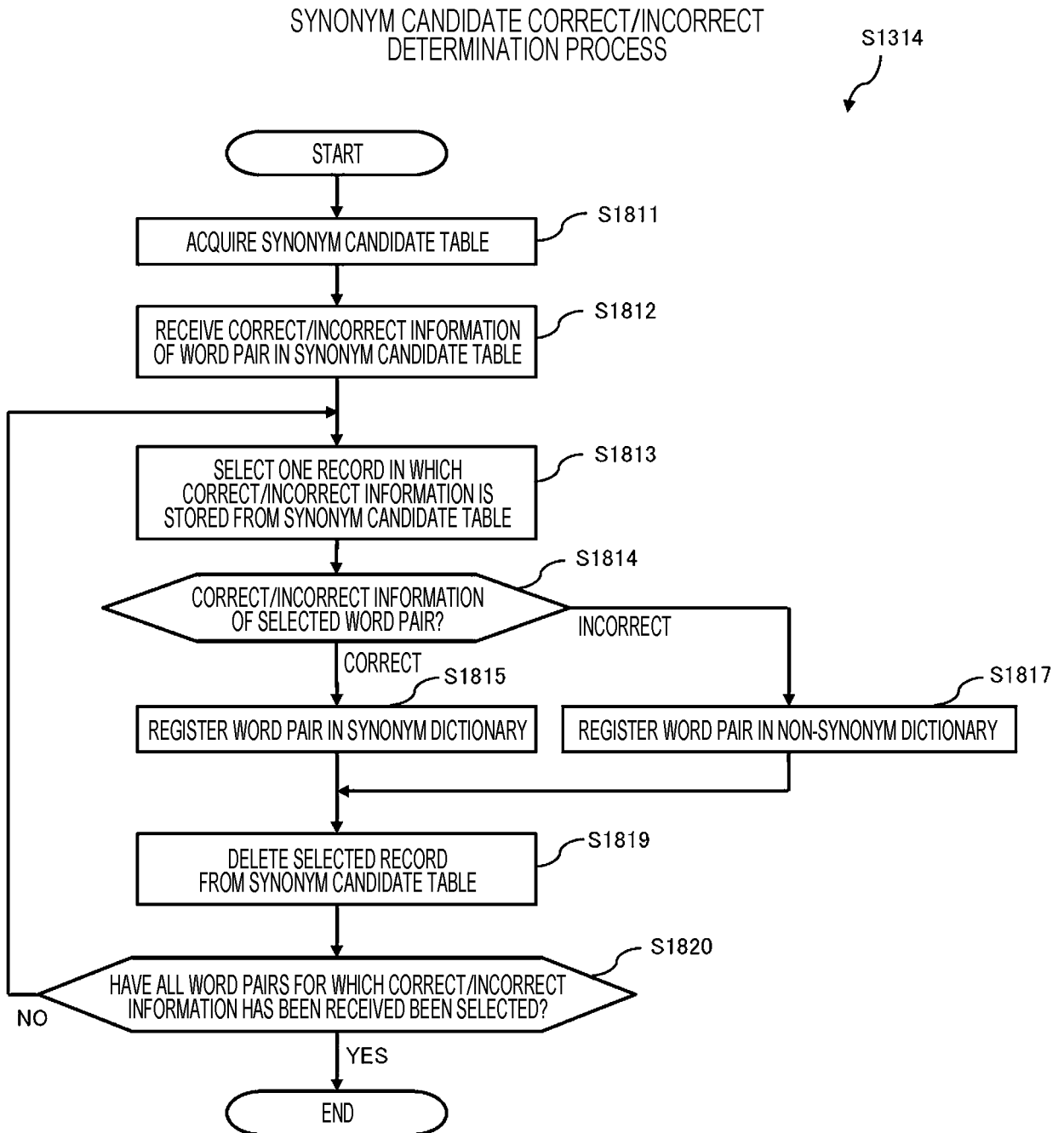


FIG. 19

1900

CORRECT/INCORRECT DETERMINATION INPUT SCREEN

1901

NUMBER OF CANDIDATES TOTAL OF "100000"

1911 WORD A	1912 WORD B	1920 CORRECT/INCORRECT	1930 EXTRACTION SOURCE TEXT
PC	PERSONAL COMPUTER	CORRECT ☒ INCORRECT ☐	AT TIME OF STARTING PC...DUE TO FAILURE IN PERSONAL COMPUTER...
SIP NOZZLE	VACUUM NOZZLE	CORRECT ☒ INCORRECT ☐	ORDER SIP NOZZLES... EXCHANGE VACUUM NOZZLES...
A NOZZLE	A TUBE	CORRECT ☐ INCORRECT ☒	A NOZZLE AND A TUBE HAVE BROKEN
HOLE	HOLE	CORRECT ☐ INCORRECT ☐	DUE TO HOLE (HOLE IN TUBE)
:	:	:	:

CORRECT/INCORRECT
DETERMINATION
REGISTRATION

1940

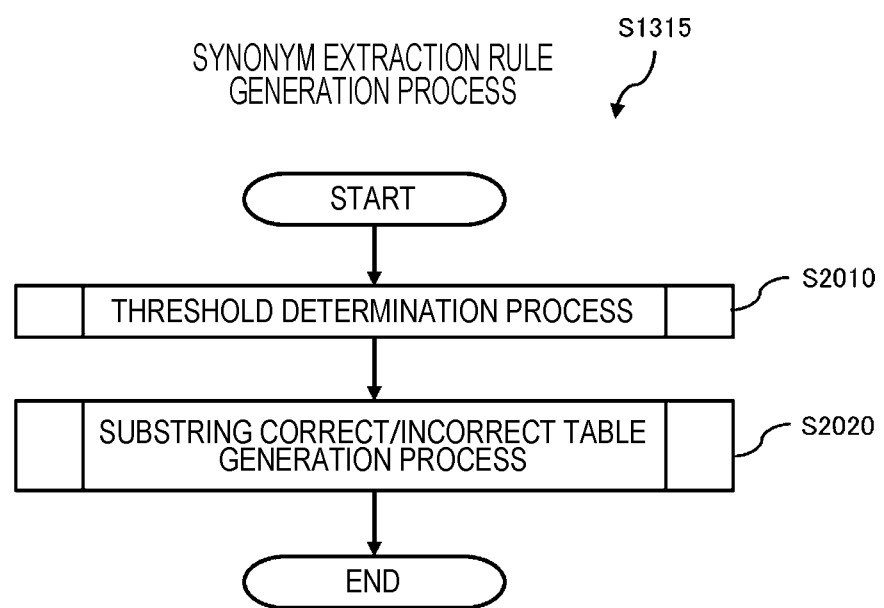
FIG. 20

FIG. 21

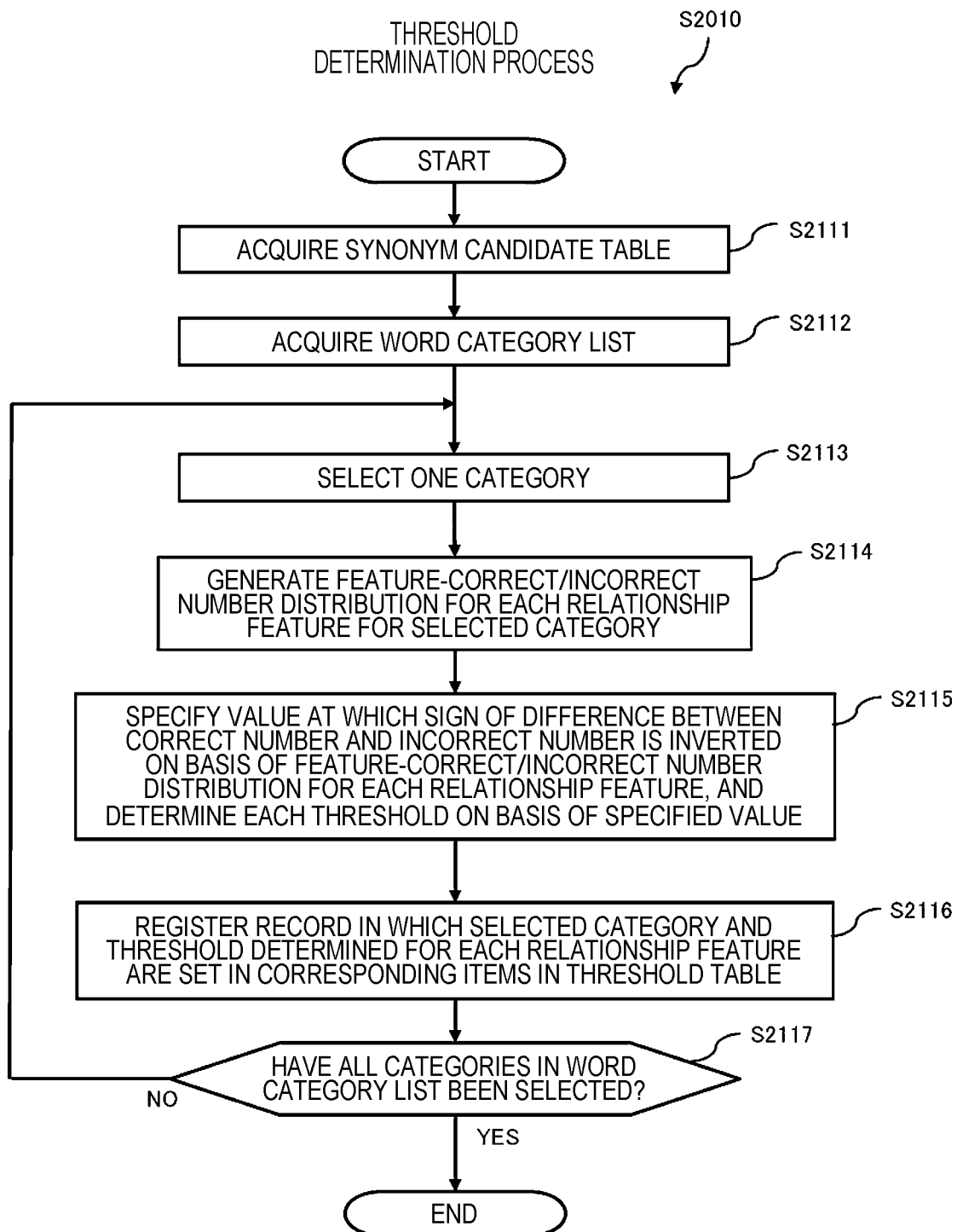


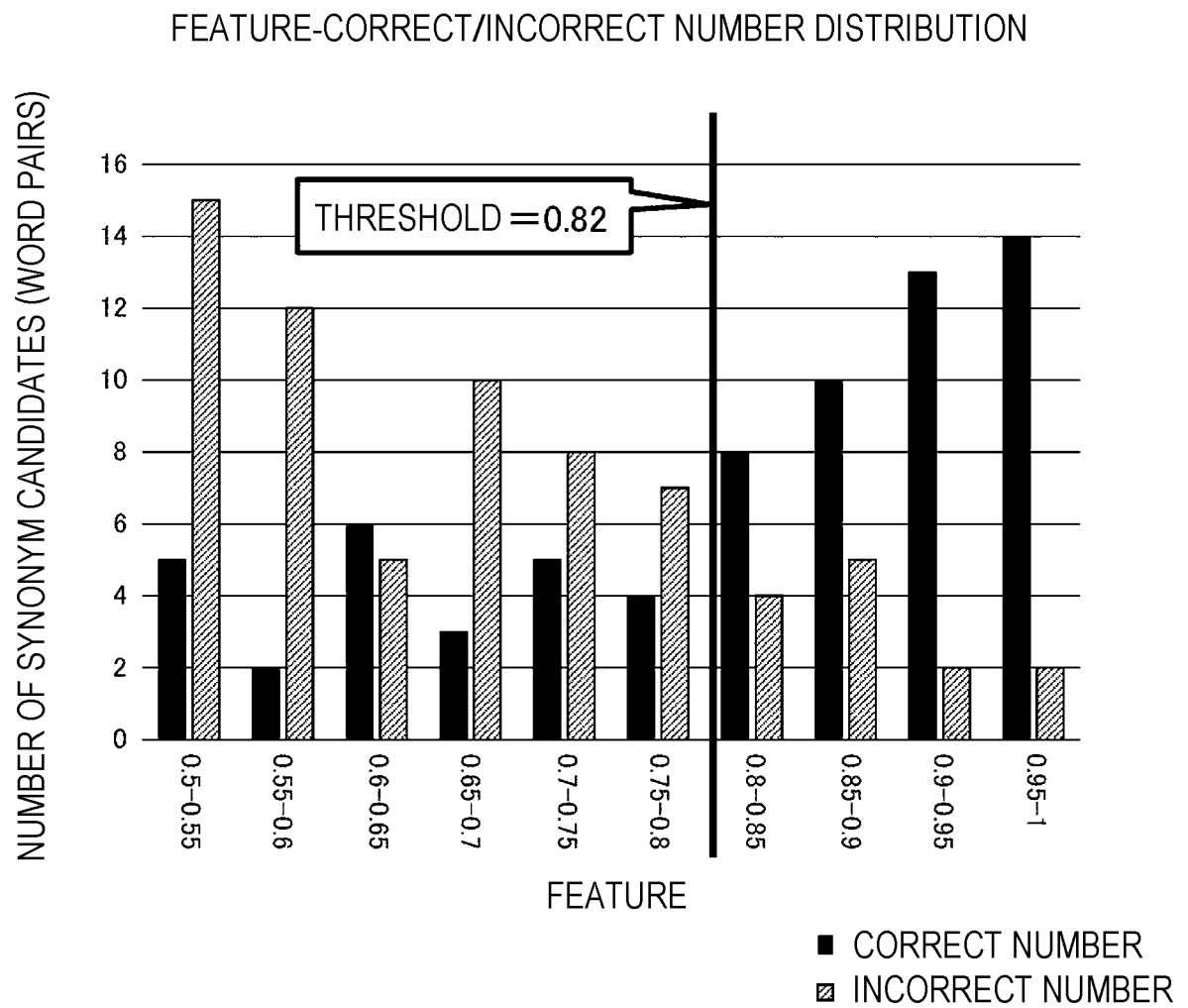
FIG. 22

FIG. 23

SUBSTRING CORRECT/INCORRECT
TABLE GENERATION PROCESS

S2020

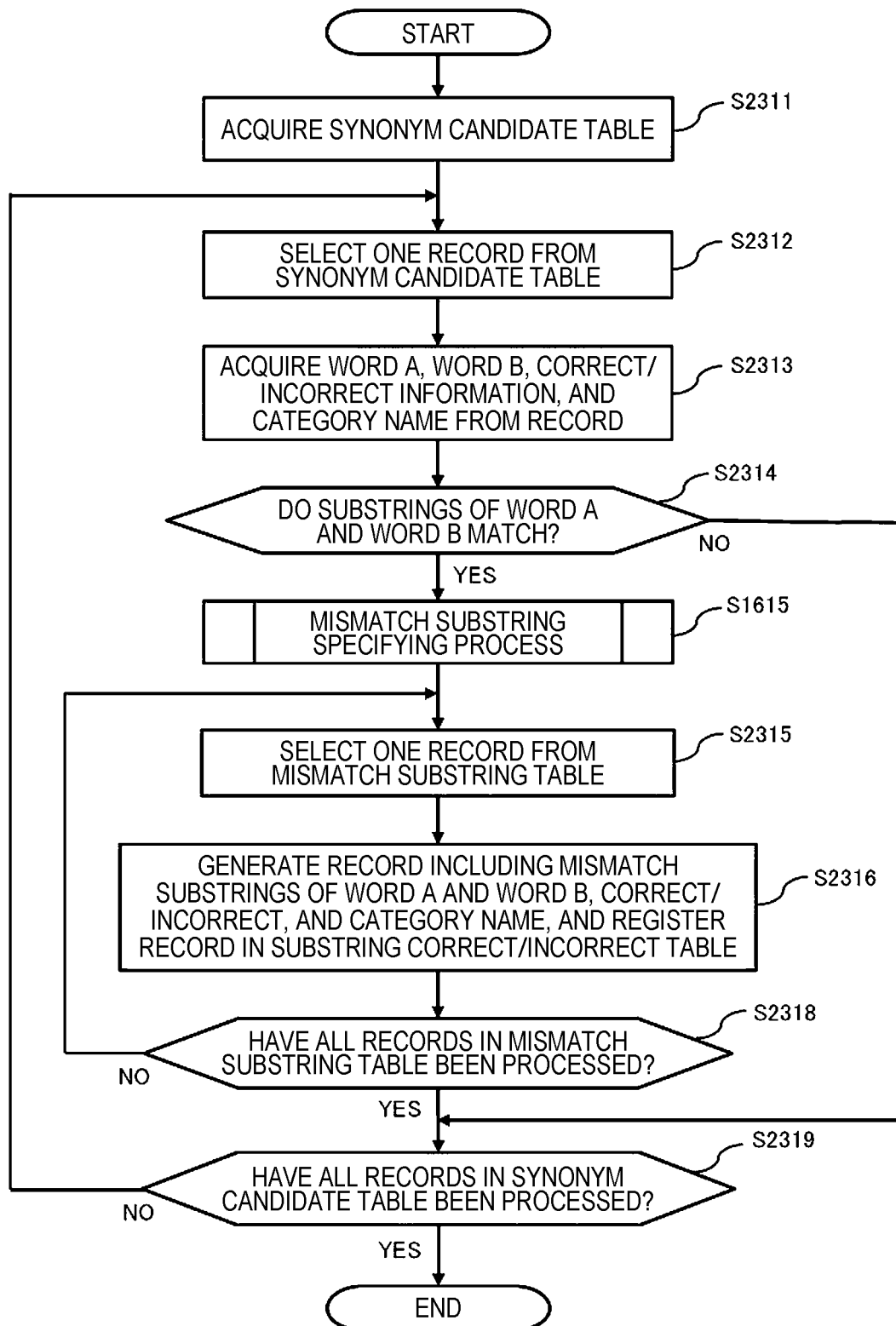


FIG. 24

1900

CORRECT/INCORRECT DETERMINATION INPUT SCREEN

1901

NUMBER OF CANDIDATES TOTAL OF "100000"

1911 WORD A	1912 WORD B	1920 CORRECT/INCORRECT	1930 EXTRACTION SOURCE TEXT
PC	PERSONAL COMPUTER	CORRECT ☒ INCORRECT ☐	AT TIME OF STARTING PC...DUE TO FAILURE IN PERSONAL COMPUTER...
SIP NOZZLE	WASHING NOZZLE	CORRECT ☒ INCORRECT ☐	ORDER SIP NOZZLES
A			ES...
H			E BROKEN
			E)

CORRECT/INCORRECT DETERMINATION RESULT
HAS BEEN REFLECTED IN SYNONYM DICTIONARY.
WILL SYNONYM CANDIDATE BE RE-PRESENTED?

1961
YES
1962
NO

1960

CORRECT/INCORRECT
DETERMINATION
REGISTRATION

1940