

Fig.1

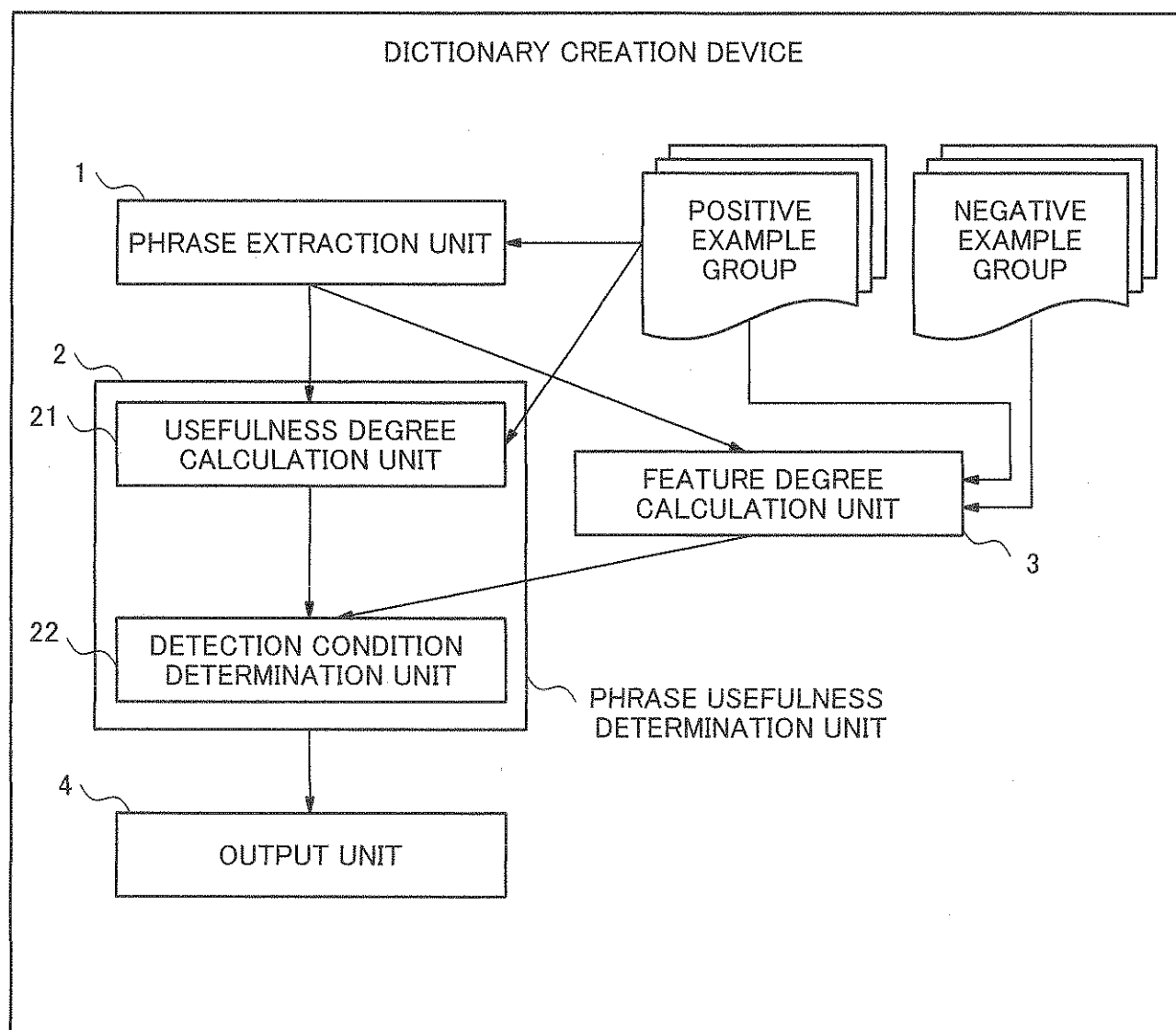


Fig.2

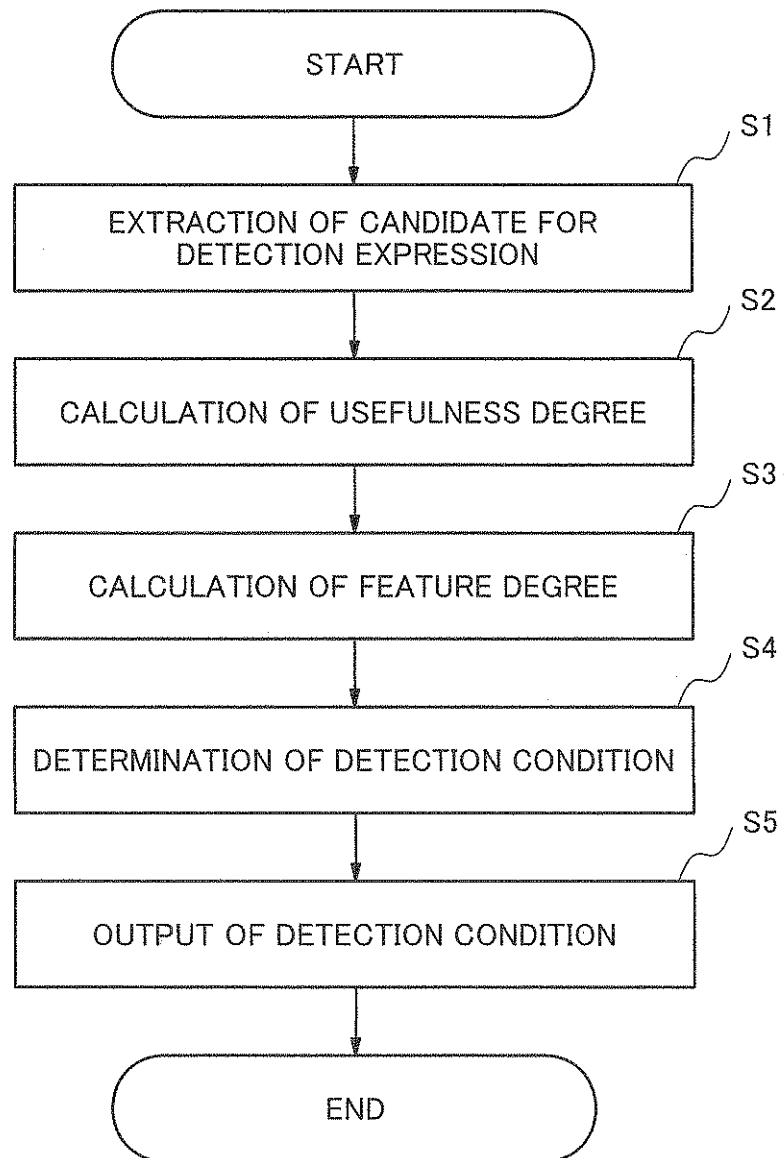


Fig.3

POSITIVE EXAMPLE GROUP	NEGATIVE EXAMPLE GROUP
<ul style="list-style-type: none">• OPENING OF AN EMAIL RESULTED IN TROJAN HORSE INFECTION• THE EMAIL SEEMS TO HAVE TROJAN HORSE• BE CAREFUL OF TROJAN HORSE INFECTION!• *****....	<ul style="list-style-type: none">• AN EMAIL WAS WRITTEN• COLD DUE TO INFECTION?• *****...

Fig.4

PHRASE	FREQUENCY (POSITIVE EXAMPLE)	FREQUENCY (NEGATIVE EXAMPLE)	FEATURE DEGREE
TROJAN HORSE	3	0	3
TROJAN	3	0	3
HORSE	3	0	3
TROJAN HORSE INFECTION	2	0	2
HORSE INFECTION	2	0	2
INFECTION	2	1	1
EMAIL	2	1	1
...			

※FEATURE DEGREE IS CALCULATED FROM "FREQUENCY (POSITIVE EXAMPLE) – FREQUENCY (NEGATIVE EXAMPLE)"

Fig.5

PHRASE	FREQUENCY (POSITIVE EXAMPLE)	FREQUENCY (NEGATIVE EXAMPLE)	FEATURE DEGREE	LENGTH	USEFULNESS DEGREE	SCORE
TROJAN HORSE	3	0	3	2	6	18
TROJAN	3	0	3	1	3	9
HORSE	3	0	3	1	3	9
TROJAN HORSE INFECTION	2	0	2	3	6	12
HORSE INFECTION	2	0	2	2	4	8
INFECTION	2	1	1	1	2	2
EMAIL	2	1	1	1	2	2
...						

*LENGTH IS CALCULATED BASED ON THE NUMBER OF CLAUSES.

*USEFULNESS DEGREE = PHRASE LENGTH * FREQUENCY (POSITIVE EXAMPLE)

*SCORE IS CALCULATED FROM FEATURE DEGREE * USEFULNESS DEGREE. (THRESHOLD VALUE OF 10 OR MORE)

Fig.6

PHRASE	FREQUENCY (POSITIVE EXAMPLE)	FREQUENCY (NEGATIVE EXAMPLE)	FEATURE DEGREE	LENGTH	USEFULNESS DEGREE	SCORE
TROJAN HORSE	3	0	3	2	4.5	13.5
TROJAN	3	0	3	1	1.5	4.5
HORSE	3	0	3	1	1.5	4.5
TROJAN HORSE INFECTION	2	0	2	3	5	10
HORSE INFECTION	2	0	2	2	3	6
INFECTION	2	1	1	1	1	1
EMAIL	2	1	1	1	1	1
...						

*LENGTH IS CALCULATED BASED ON THE NUMBER OF CLAUSES.

*USEFULNESS DEGREE IS CALCULATED FROM (LENGTH - 0.5) FREQUENCY (POSITIVE EXAMPLE).

*SCORE IS CALCULATED FROM FEATURE DEGREE USEFULNESS DEGREE. (THRESHOLD VALUE OF 10 OR MORE)

Fig.7

PHRASE	LENGTH	FREQUENCY (POSITIVE EXAMPLE)	T	C	C-value	FEATURE DEGREE	SCORE
TROJAN HORSE	2	3	2	1	2	3	6
TROJAN	1	3	5	2	0.5	3	1.5
HORSE	1	3	7	3	0.67	3	2
TROJAN HORSE INFECTION	3	2	0	0	6	2	12
HORSE INFECTION	2	2	2	1	0	2	0
INFECTION	1	2	4	2	0	1	0
EMAIL	1	2	0	0	2	1	2
...							

DEFINITION OF C-VALUE

C-VALUE = (PHRASE LENGTH) x (PHRASE FREQUENCY - T/C) (IN CASE OF C>0)
 C-VALUE = (PHRASE LENGTH) x (PHRASE FREQUENCY) (IN CASE OF C=0)

T: FREQUENCY OF APPEARANCES OF PHRASE INCLUDING PHRASE OF INTEREST

C: CARDINALITY OF PHRASE INCLUDING PHRASE OF INTEREST

SCORE IS CALCULATED FROM FEATURE DEGREE. (THRESHOLD VALUE OF 5 OR MORE

Fig.8

PHRASE	LENGTH	FREQUENCY (POSITIVE EXAMPLE)	T	C	C-value	FEATURE DEGREE	SCORE
TROJAN HORSE	2	3	2	1	1	3	3
TROJAN	1	3	5	2	0	3	0
HORSE	1	3	7	3	0	3	0
TROJAN HORSE INFECTION	3	2	0	0	4	2	8
HORSE INFECTION	2	2	2	1	0	2	0
INFECTION	1	2	4	2	0	1	0
EMAIL	1	2	0	0	0	1	0
...							

DEFINITION OF C-VALUE

$$C\text{-VALUE} = (\text{PHRASE LENGTH} - 1) \times (\text{PHRASE FREQUENCY} - T/C) \quad (\text{IN CASE OF } C > 0)$$

$$C\text{-VALUE} = (\text{PHRASE LENGTH} - 1) \times (\text{PHRASE FREQUENCY}) \quad (\text{IN CASE OF } C = 0)$$

T: FREQUENCY OF APPEARANCES OF PHRASE INCLUDING PHRASE OF INTEREST

C: CARDINALITY OF PHRASE INCLUDING PHRASE OF INTEREST

Fig.9

PHRASE	FREQUENCY (POSITIVE EXAMPLE)	LENGTH	USEFULNESS DEGREE	FREQUENCY (NEGATIVE EXAMPLE)	FEATURE DEGREE	SCORE
TROJAN HORSE	3	2	4.5	0	3	13.5
TROJAN	3	1	1.5	0	-	-
HORSE	3	1	1.5	0	-	-
TROJAN HORSE INFECTION	2	3	5	0	2	10
HORSE INFECTION	2	2	3	0	2	6
INFECTION	2	1	1	1	-	-
EMAIL	2	1	1	1	-	-
...						

*LENGTH IS CALCULATED BASED ON THE NUMBER OF CLAUSES

*USEFULNESS DEGREE IS CALCULATED FROM $(\text{LENGTH} - 0.5) \times \text{FREQUENCY (POSITIVE EXAMPLE)}$

*ONLY IN CASE OF USEFULNESS DEGREE OF 3 OR MORE, FEATURE DEGREE IS CALCULATED. DETERMINATION

*SCORE IS CALCULATED FROM $\text{FEATURE DEGREE} \times \text{USEFULNESS DEGREE}$. (THRESHOLD VALUE OF 10 OR MORE)