

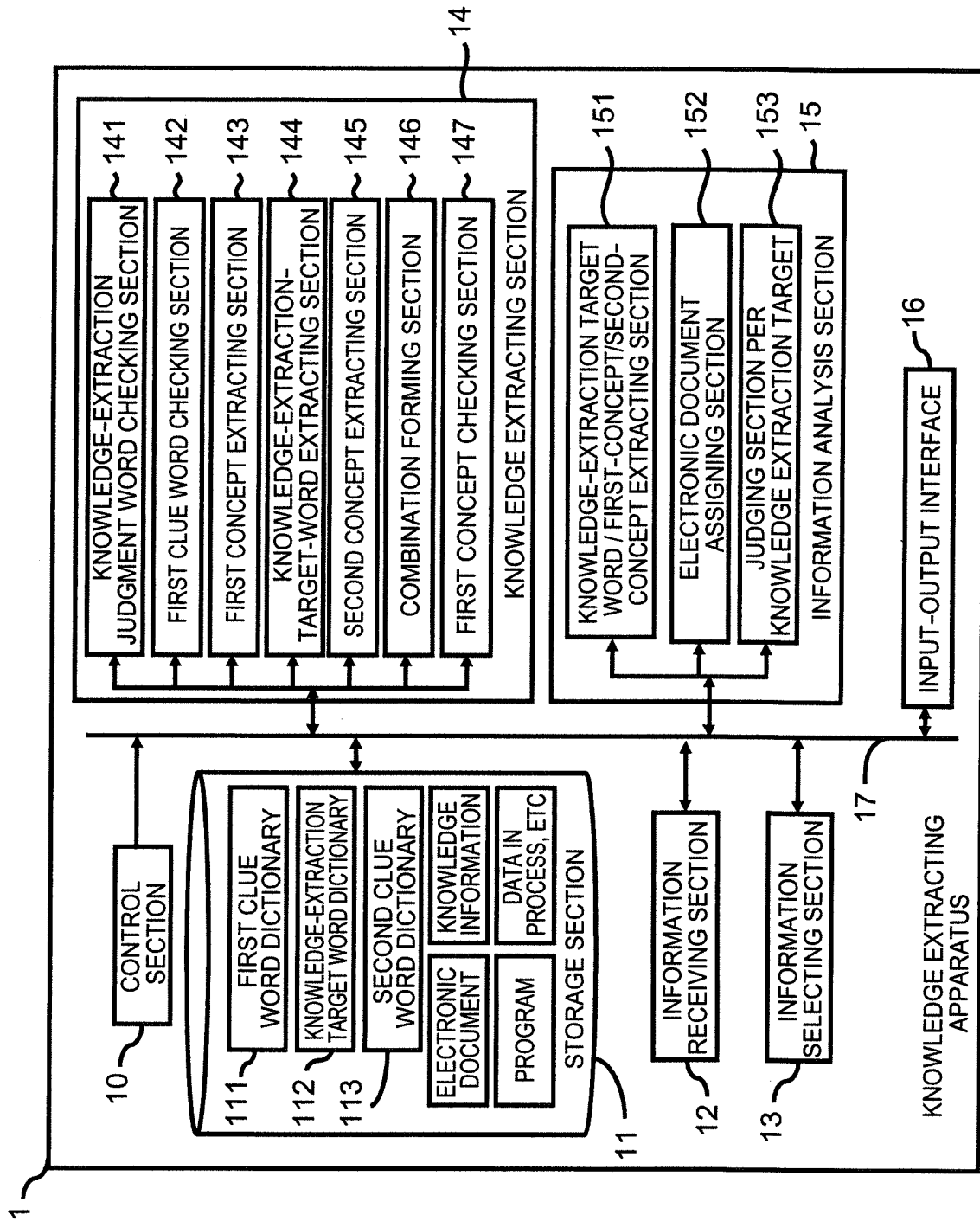


FIG. 1

111

FIRST CLUE WORD DICTIONARY	
CODE	FIRST CLUE WORD
G001	RELATED ISSUE
G002	SPECIAL PROCUREMENT
G003	RELATED STOCK
G004	EACH COMPANY
G005	STOCK

FIG. 2

112

KNOWLEDGE-EXTRACTION TARGET WORD DICTIONARY				
SECURITIES CODE	KNOWLEDGE-EXTRACTION TARGET WORD (COMPANY NAME)	INDUSTRIAL CATEGORY 1 ON TOKYO STOCK EXCHANGE (LARGE CLASSIFICATION)	INDUSTRIAL CATEGORY 2 ON TOKYO STOCK EXCHANGE (SMALL CLASSIFICATION)	KNOWLEDGE-EXTRACTION TARGET NAME EXPRESSION (COMPANY NAME EXPRESSION)
1031	RR BOU	MANUFACTURING INDUSTRY	TEXTILE GOODS	RR BOU
1035	zz BOU CO., LTD	MANUFACTURING INDUSTRY	TEXTILE GOODS	zz BOU
1045	IROHANI PHARMACEUTICAL INDUSTRY CO., LTD.	MANUFACTURING INDUSTRY	MEDICAL PRODUCT	IROHANI
1045	IROHANI PHARMACEUTICAL INDUSTRY CO., LTD.	MANUFACTURING INDUSTRY	MEDICAL PRODUCT	IROHANI PHARMA
1045	IROHANI PHARMACEUTICAL INDUSTRY CO., LTD.	MANUFACTURING INDUSTRY	MEDICAL PRODUCT	IROHANI PHARMACEUTICAL
1045	IROHANI PHARMACEUTICAL INDUSTRY CO., LTD.	MANUFACTURING INDUSTRY	MEDICAL PRODUCT	IROHANI PHARMACEUTICAL INDUSTRY
1042	ff PHARMACEUTICAL CO., LTD.	MANUFACTURING INDUSTRY	MEDICAL PRODUCT	ff PHARMACEUTICAL
1041	HOHETO MEDICALS CO., LTD.	MANUFACTURING INDUSTRY	MEDICAL PRODUCT	HOHETO MEDICALS
1033	yy BOU HOLDINGS CO., LTD.	TRADE	WHOLESALE	yy BO HD
1033	yy BOU HOLDINGS CO., LTD.	TRADE	WHOLESALE	yy BOU
1033	yy BOU HOLDINGS CO., LTD.	TRADE	WHOLESALE	yy BOU HD
1033	yy BOU HOLDINGS CO., LTD.	TRADE	WHOLESALE	yy BOU HOLDINGS

FIG. 3

113

SECOND CLUE WORD DICTIONARY	
CODE	SECOND CLUE WORD
t001	CUE
t002	REGARDED AS CUE
t003	WELCOMED
t004	NEGATIVE REACTION
t005	SELECTED
t005	BUYING LEADS

FIG. 4

<div>NEWS ID: 1</div> <div>NEWS SOURCE: X NEWS AGENCY</div> <div>GENRE: ECONOMY</div> <div>NEWS HEADING: "Group infection of new influenza in student dormitory in A prefecture, related issues remained steady"</div> <div>NEWS MAIN BODY: Influenza-related issues including RR bou <1031>, yy bo HD <1033>, and Hoheto medicals <1041> are ranked. It seems to be a cue that A prefecture announced that a group infection of new influenza was caused in a student dormitory in X city. As a result of genetic tests of 12 men and women, they were found to be infected by a new influenza type</div>	<div>TIME STAMP: OCTOBER 21, 2010, 11:08</div>
<div>NEWS ID: 2</div> <div>NEWS SOURCE: S NEWSPAPER COMPANY</div> <div>GENRE: SOCIETY</div> <div>NEWS HEADLINE: Group infection of influenza in hospital, six patients died. Hospital in B City of B prefecture</div> <div>NEWS MAIN BODY: B prefecture announced, on Nov 6, that a group infection of influenza was caused in a hospital in B city, and six men and women between the ages of sixty to ninety in the hospital died from Oct 31 to Nov 5. This is believed to be caused by Hong Kong type A influenza. 33 people including staffs and patients complain their symptoms as of November 5, but they are allegedly not in a serious condition. A man in his 80s died on 6th of this month, but he tested negative for the influenza. The prefecture does not announce the hospital name. According to the prefecture, the hospital reported to M public health center that "49 patients complain influenza-like symptoms" on 2nd of this month, and instructed to isolate people with suspicious of infection. An on-site inspection was allegedly conducted on 4th and 5th of this month. However, a man in his 80s died on 31st of last month, followed by three people including a man in his 90s, a man in his 60s, and a woman in her 70s on Nov 2, a woman in her 80s on Nov 4, and a man in his 80s on Nov 5. They all tested positive for the influenza. The health welfare division of the prefecture said, "we gave instructions to the hospital through the public health center, and the hospital followed the instructions. We found no fault in particular."</div>	<div>TIME STAMP: NOVEMBER 6, 2010, 18:13</div>
<div>:</div> <div>:</div> <div>:</div>	

FIG. 5

:	
:	
:	
NEWS ID: 3	TIME STAMP: JANUARY 1, 2011, 9:24
NEWS SOURCE: M NEWS AGENCY	
GENRE: MARKET	
NEWS HEADLINE: Rebound of Nikkei average, increase in U.S. stock prices and steady yen exchange rate = Market opening on 17th	
NEWS MAIN BODY: Nikkei Stock Average was rebounded and opened on Jan 17 at 10,562.09 yen, increased 63.05 yen from the previous week, and	
struggled to find a direction with high prices. In response to the increase in U.S. stock prices and steady yen exchange rate late	
last week, buying leads. The stock average comes close to 10,575 yen (75 yen high from the closing price at Osakashi Securities	
Exchange) of a yen-denominated liquidation value in Chicago futures exchange. In terms of the industrial category, petroleum-	
related stocks, such as XXX Seki <1001>, and Petroleum VV <1022> which was reported that its consolidated pretax profit was a	
little over 200 billion yen for April to December of 2010, rise. Buying of stocks of trading companies such as HH trading <1080>	
also leads. Share prices of non-ferrous metal such as SS Minerals <1050> are also high. Fiber stocks such as Fiber JJ <1030>	
are also bought. Bank stocks such as HH Bank <1082> are also rising. High technology stocks including High-tech BB <1060>	
and QQ Memory <1063> to which D securities raised its investment decision are also selected.	

FIG. 6

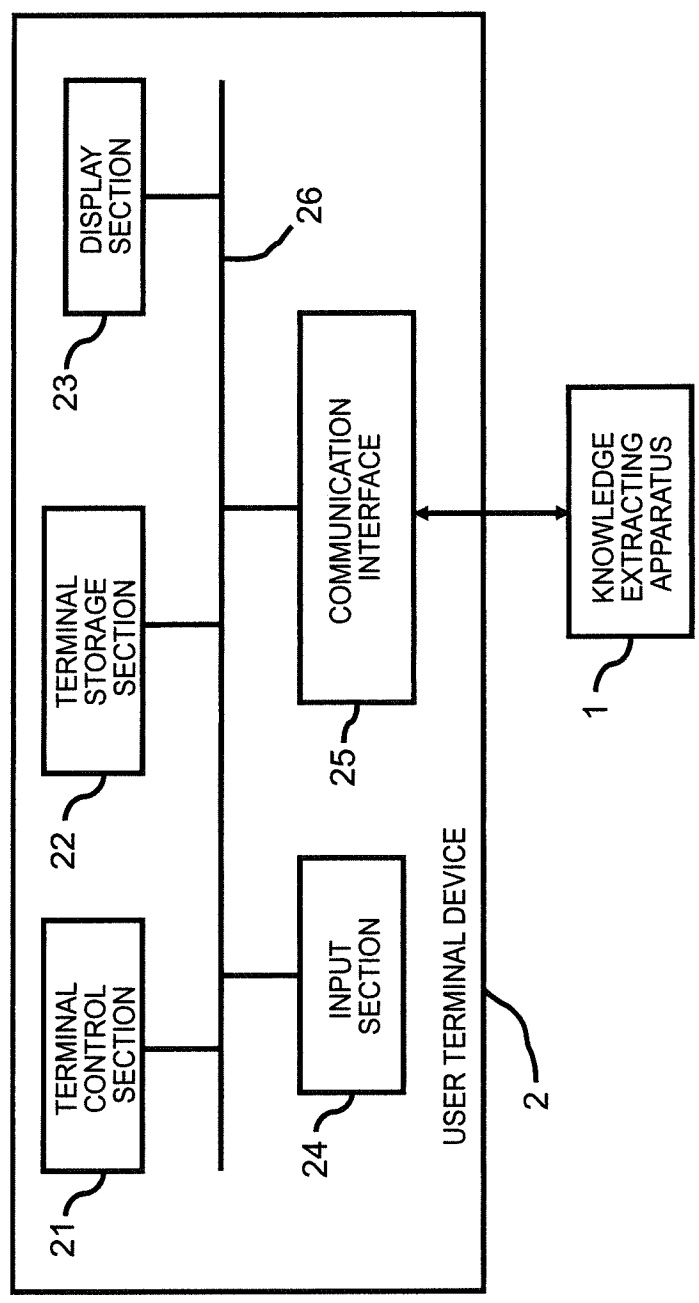


FIG. 7

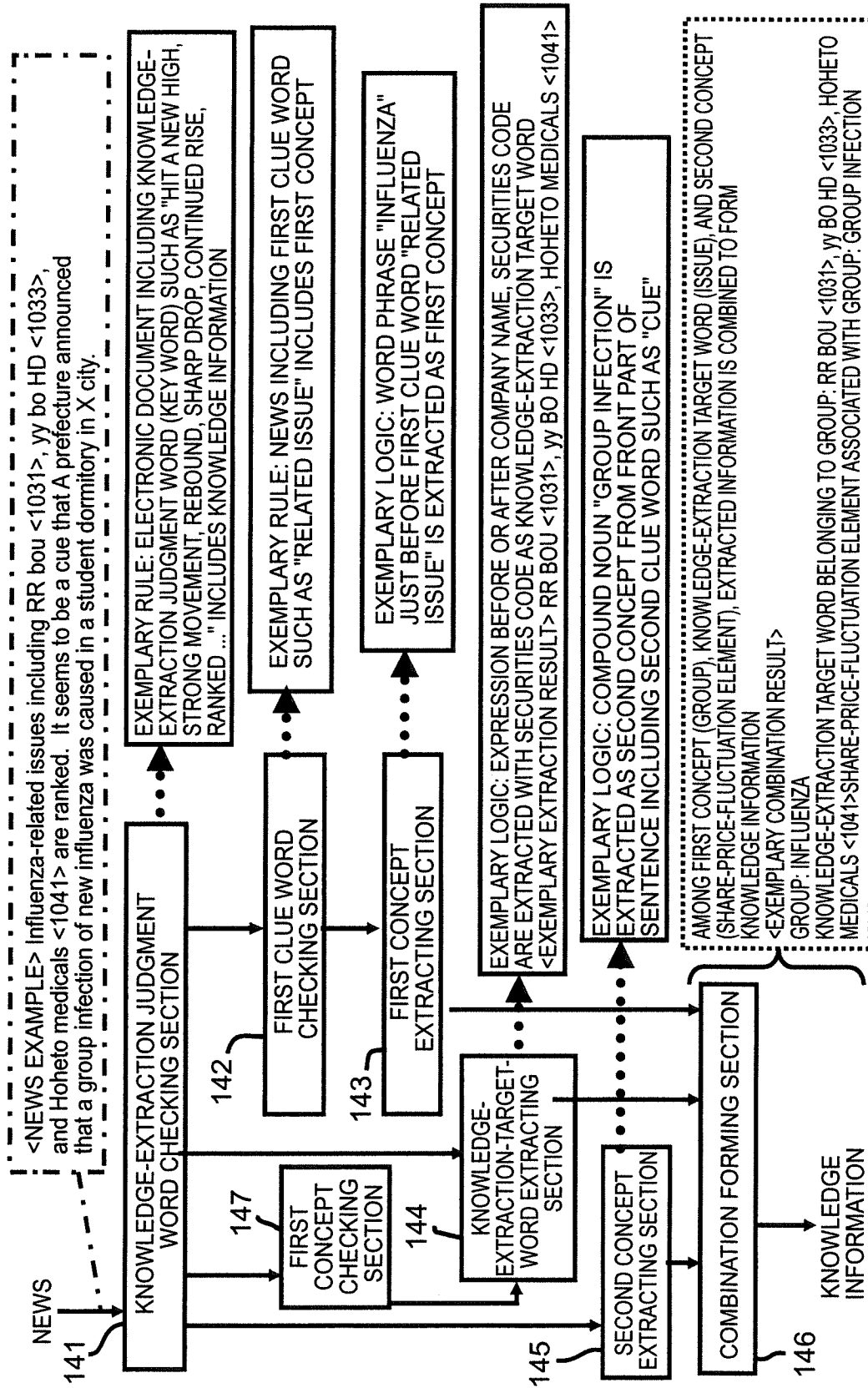


FIG. 8

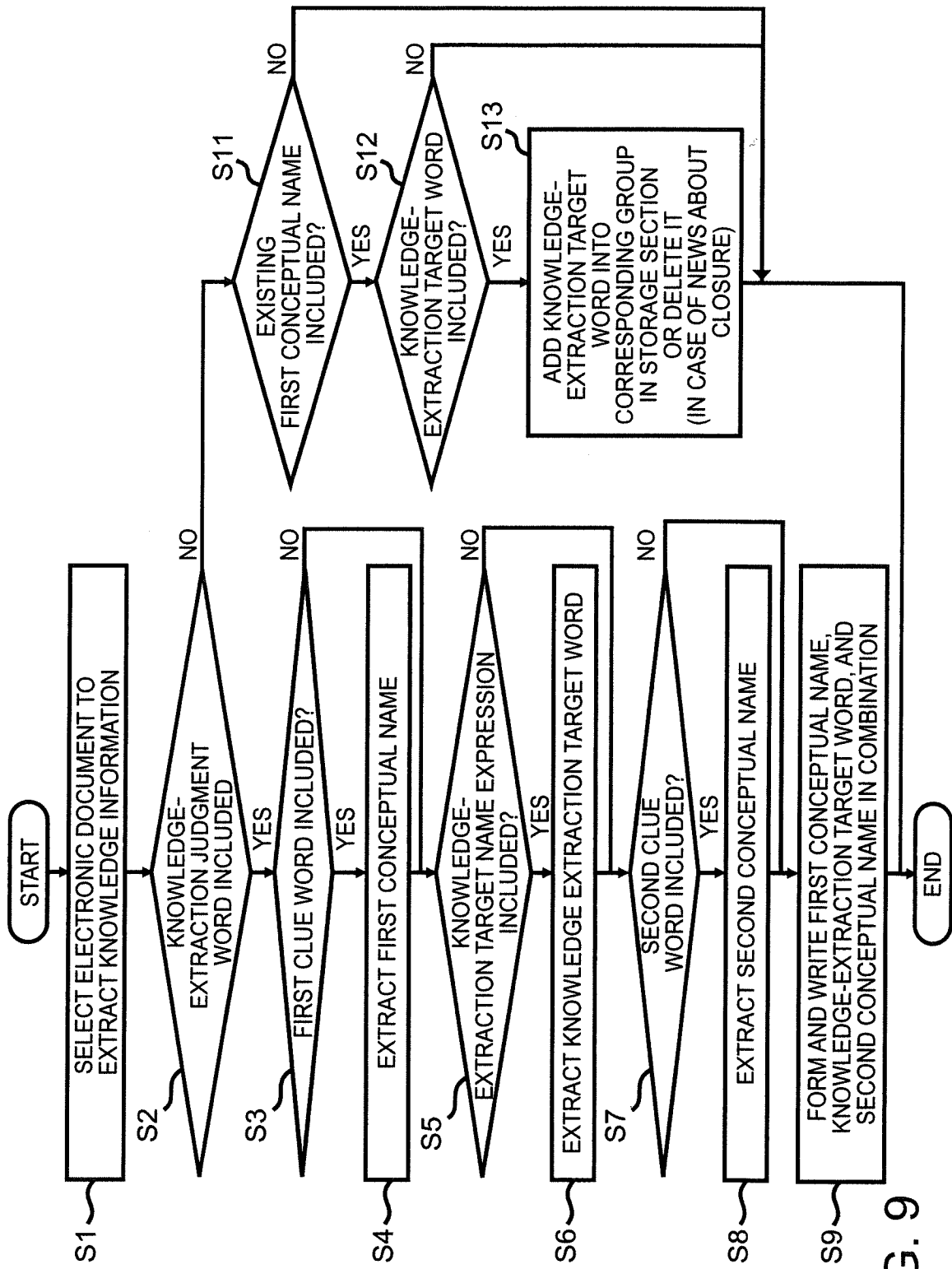


FIG. 9

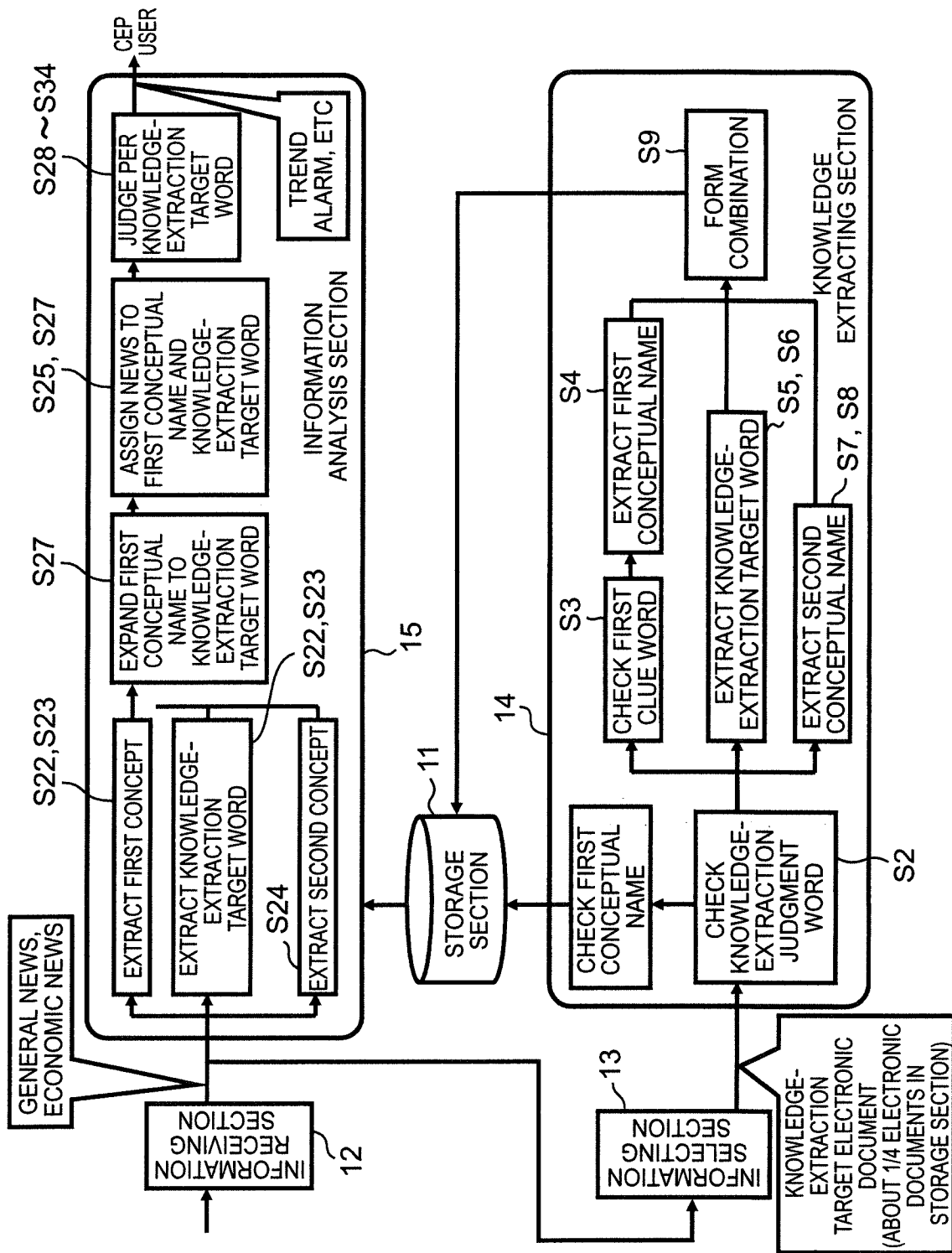


FIG. 10

Nikkei Stock Average was rebounded and opened on 17th at 10,562.09 yen, increased 63.05 yen from the previous week, and struggled to find a direction with high prices. In response to the increase in U.S. stock prices and steady yen exchange rate late last week, buying leads. The stock average comes close to 10,575 yen (75 yen high from the closing price at Osakashi Securities Exchange) of a yen-denominated liquidation value in Chicago futures exchange. In terms of the industrial category, petroleum-related stocks, such as XXX Seki <1001>, and Petroleum VV <1002> which was reported that its consolidated pretax profit was a little over 200 billion yen for April to December of 2010, rise. Buying of stocks of trading companies such as HH trading <1080> also leads. Share prices of non-ferrous metal such as SS Minerals <1050> are also high. Fiber stocks such as Fiber JJ <1030> are also bought. Bank stocks such as HH Bank <1082> are also rising. High technology stocks including High-tech BB <1060> and QQ Memory <1063> to which D securities raised its investment decision are also selected.

ISSUE 8 ELEMENT 3 GROUP 5 ISSUE 6 GROUP 6 ISSUE 7 GROUP 4 ISSUE 5 GROUP 2 ISSUE 3 ISSUE 2 GROUP 1 ELEMENT 1

FIG. 11

KNOWLEDGE INFORMATION			
KNOWLEDGE NO.	FIRST CONCEPTUAL NAME	KNOWLEDGE-EXTRACTION TARGET WORD (ISSUE)	SECOND CONCEPT (SHARE-PRICE-FLUCTUATION ELEMENT)
1	INFLUENZA	1033 : YY BOU HOLDINGS CO., LTD. 1031 : RR BOU CO., LTD. 1041 : HOHETO MEDICALS CO., LTD.	GROUP INFECTION
2	PETROLEUM	1001 : XXX SEKI CO., LTD. 1002 : PETROLEUM VV HOLDINGS CO., LTD.	CONSOLIDATED PRETAX PROFIT WAS A LITTLE OVER 200 BILLION YEN
3	TRADING COMPANY	1080 : HH TRADING CO., LTD.	
4	NON-FERROUS METAL	1050 : SS MINERALS CO., LTD.	
5	FIBER	1030 : FIBER JJ CO., LTD.	
6	BANK	1082 : HH BANK FINANCIAL GROUP CO., LTD.	
7	HIGH TECHNOLOGY	1060 : HIGH-TECHNIQUE BB CO., LTD. 1063 : QQ MEMORY	RAISED ITS INVESTMENT DECISION

FIG. 12

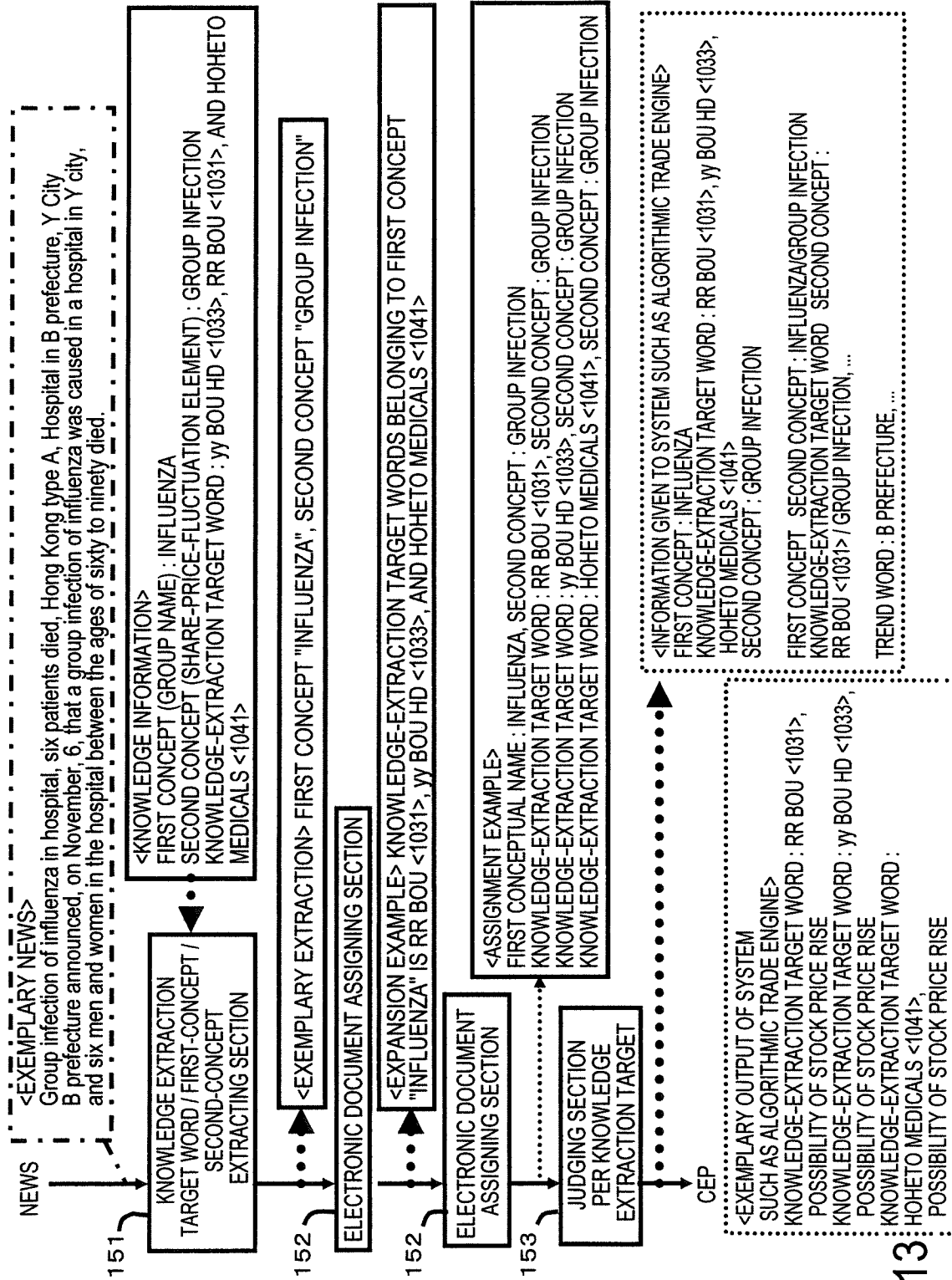


FIG. 13

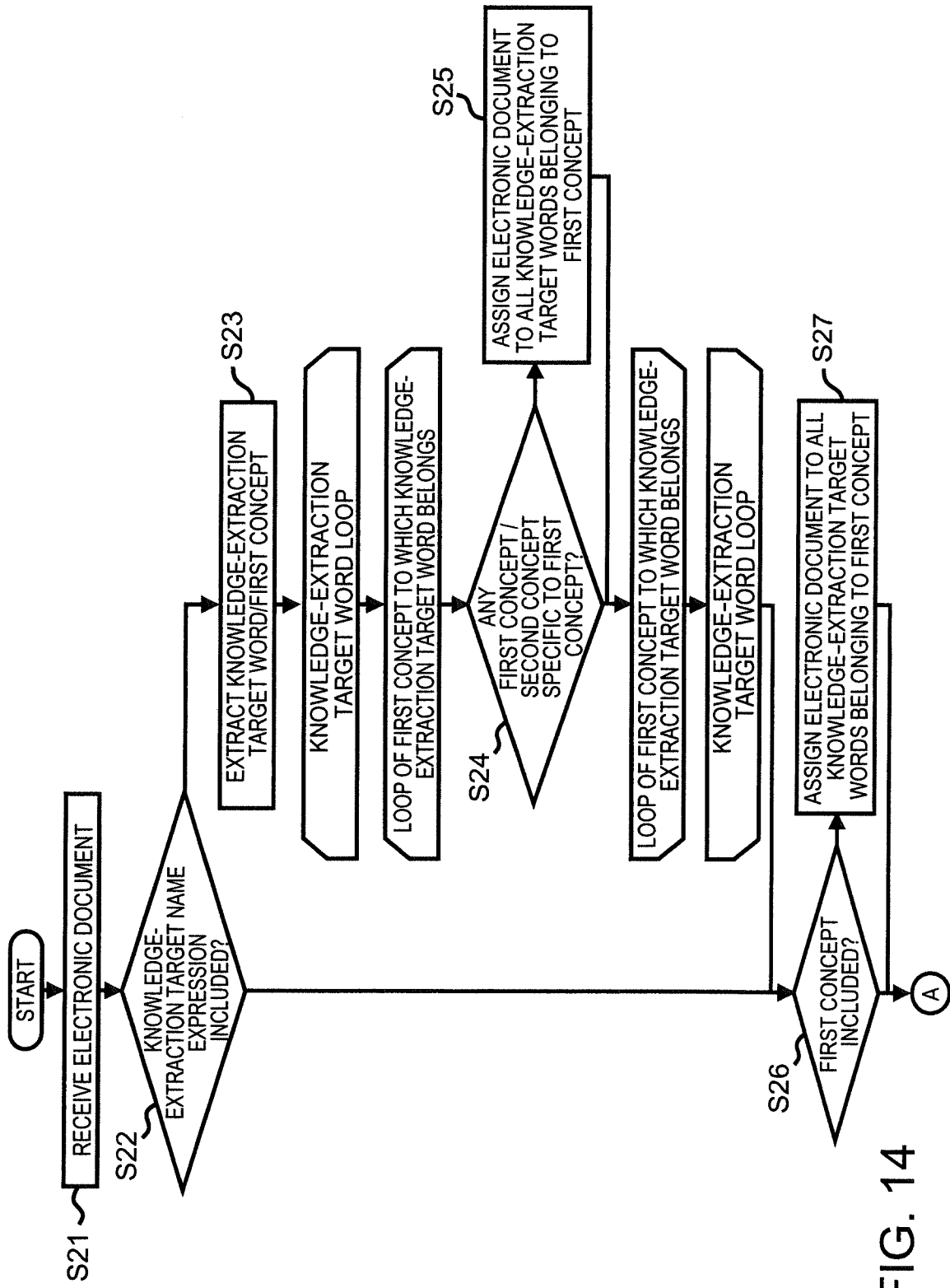


FIG. 14

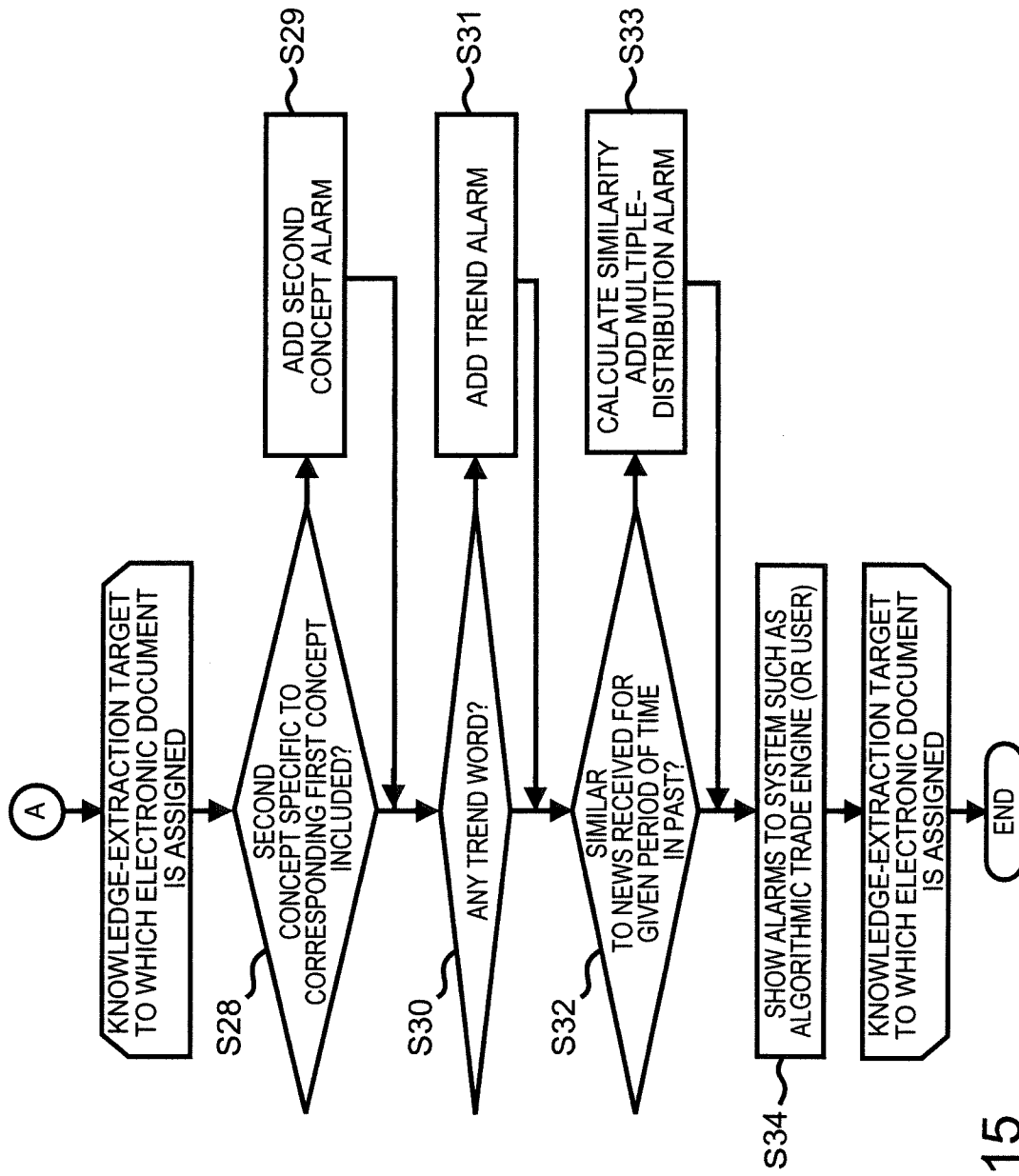


FIG. 15

113a

SECOND CLUE WORD DICTIONARY			
CODE	SECOND CLUE WORD	DIRECTION	INTENSITY
t001	CUE		
t002	REGARDED AS CUE		
t003	WELCOMED	POSITIVE	2
t004	NEGATIVE REACTION	NEGATIVE	2
t005	SELECTED		
t006	BUYING LEADS	POSITIVE	1

FIG. 16

NEWS ID: 4	TIME STAMP: NOVEMBER 17, 2011, 9:45
NEWS SOURCE: X NEWS AGENCY	
GENRE: JAPANESE STOCKS	
NEWS HEADING: Sharp decline in Chirinuruwo = negative reaction to downward revision in earnings	
NEWS MAIN BODY : The share price of Chirinuruwo <1123> listed on TSE Mothers is sharply declined to 73,000 yen, down 6,400 yen from the previous business day.	
NEWS ID: 5	TIME STAMP: JANUARY 28, 2011, 20:04
NEWS SOURCE: S NEWSPAPER COMPANY	
GENRE: GENERAL ECONOMY	
NEWS HEADLINE: AA iron cutting its profit forecast to reflect rising raw material costs and delayed price passthrough	
NEWS MAIN BODY : AA iron manufacture <1152> revised its consolidated ordinary income forecast for March of 2011 to 220 billion yen, down 12% from 250 billion yen of initial forecast, on Jan 28, to reflect rising raw material costs, burden of additional costs under the influence of the deluge in country β , and delayed price passthrough of steel products. The president of the company, D-Yama E-Q, said in the financial results briefing that raw material costs which have begun to rise from about November continues to rise further under the influence of the deluge in country β , and the profit for January to March would be markedly decreased as compared with the profit for October to December. The company estimation shows the ordinary profit for January to March would be 31,700 million yen, down approximately 40% from the ordinary profit for October to December. This is largely affected by a decrease in ordinary profit in the iron industry, which is the main business, to 13,900 million yen, down approximately 70% from that for October to December. Regarding the price of steel products, the president said, "the price enters an upward phase, but there is only few gains for us by March," indicating that no prospect of improvement in sales price for this fiscal year is also a reason for the downward revision in earnings.	

FIG. 17

KNOWLEDGE NO.	FIRST CONCEPT	KNOWLEDGE-EXTRACTION TARGET WORD	SHARE-PRICE-FLUCTUATION ELEMENT	DIRECTION	INTENSITY
10		1123 : CHIRINURUWO	DOWNWARD REVISION IN EARNINGS	NEGATIVE	2

FIG. 18

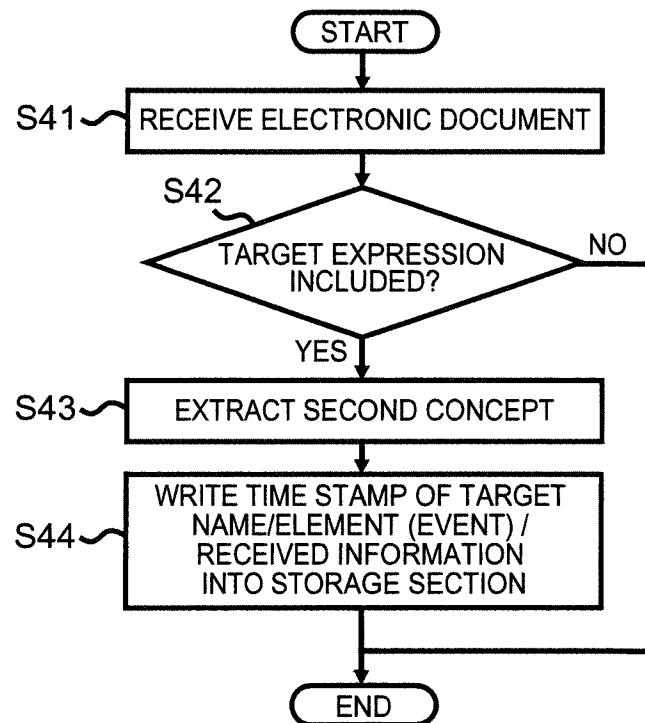


FIG. 19

KNOWLEDGE INFORMATION			
TARGET (FIRST CONCEPT)	SECOND CONCEPT	TIME STAMP	SIMILARITY INFORMATION NUMBER
INFLUENZA	GROUP OF NEW INFLUENZA IN A STUDY DORMITORY IN A PREFECTURE	OCTOBER 21, 2010, 11:08	30
INFLUENZA	GROUP INFECTION OF INFLUENZA WAS CAUSED IN A HOSPITAL IN B CITY AND ... IN THE HOSPITAL ... FROM OCT 31 TO NOV 5 ...	NOVEMBER 6, 2010, 18:13	50

FIG. 20

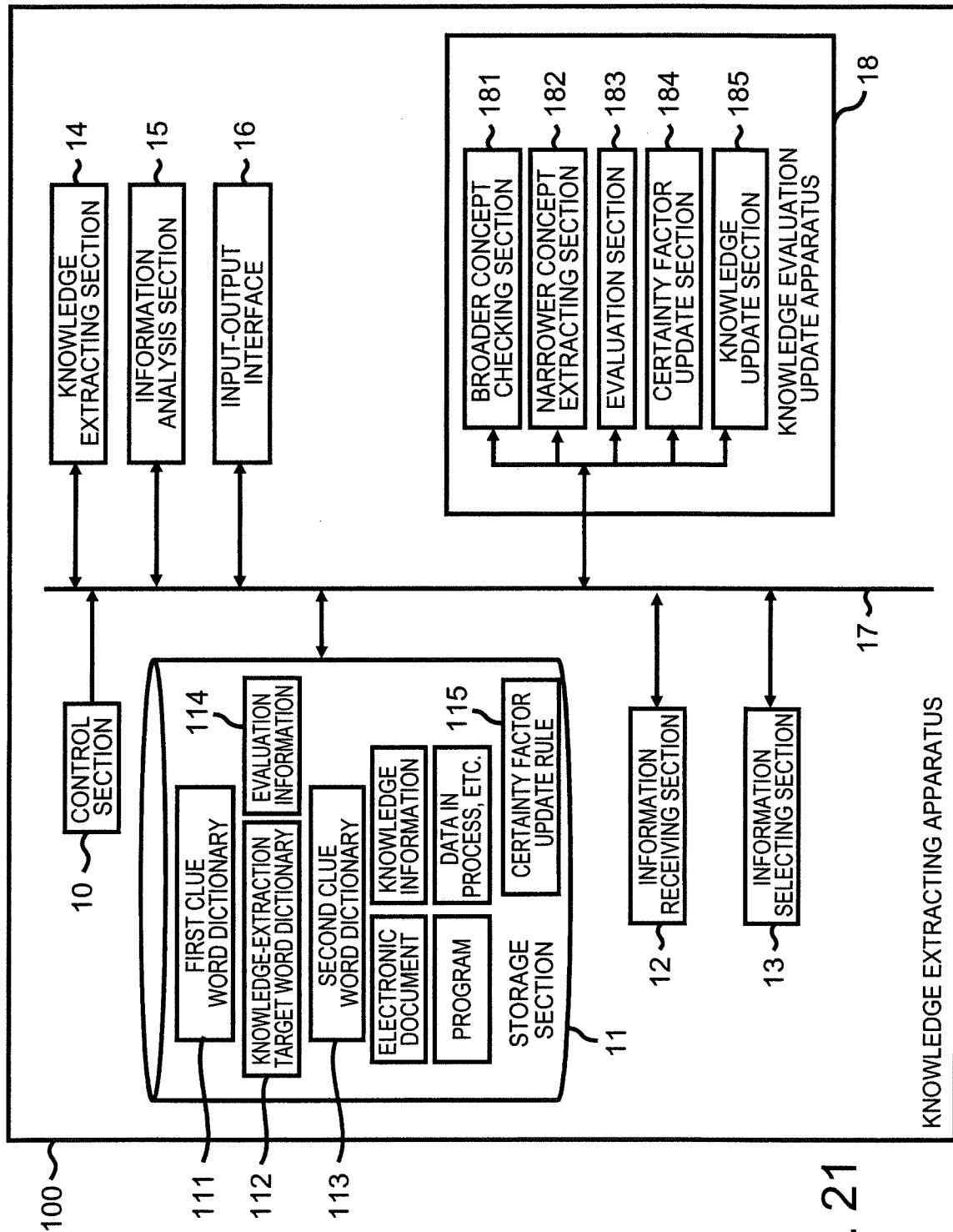


FIG. 21

FIRST CONCEPT	LOW-ORDER GROUP NAME	KNOWLEDGE-EXTRACTION TARGET (ISSUE)	CERTAINTY FACTOR	BUSINESS ENTRY TIMING	BUSINESS CLOSURE TIMING	CERTAINTY FACTOR UPDATING HISTORY 1	CERTAINTY FACTOR UPDATING HISTORY 2	FIRST CLUE WORD
INFLUENZA	MASK	yy BOU HOLDINGS <1033>	1.3			JANUARY 4, 2009 +0.1	DECEMBER X, 2008 +0.1	SPECIAL PRO-CUREMENT
INFLUENZA	MASK	zz BOU<1035>	1.1			JANUARY 4, 2009 +0.1		RELATED STOCK
INFLUENZA	DISINFECTANT/SANITIZATION AGENT	HOHETO MEDICALS<1041>	0.6		MARCH 31, 2011	JANUARY 4, 2009 -0.1		EACH COMPANY
INFLUENZA	INFLUENZA MEDICINE	ff PHARMACEUTICAL<1042>	1	OCTOBER 19, 2007		SEPTEMBER 10, 2008 +1		RELATED
MULTIPLE DRUG RESISTANT BACTERIA	DISINFECTANT/SANITIZATION AGENT	HOHETO MEDICALS<1041>	1.2			SEPTEMBER X, 2008 +0.1		ISSUE

FIG. 22

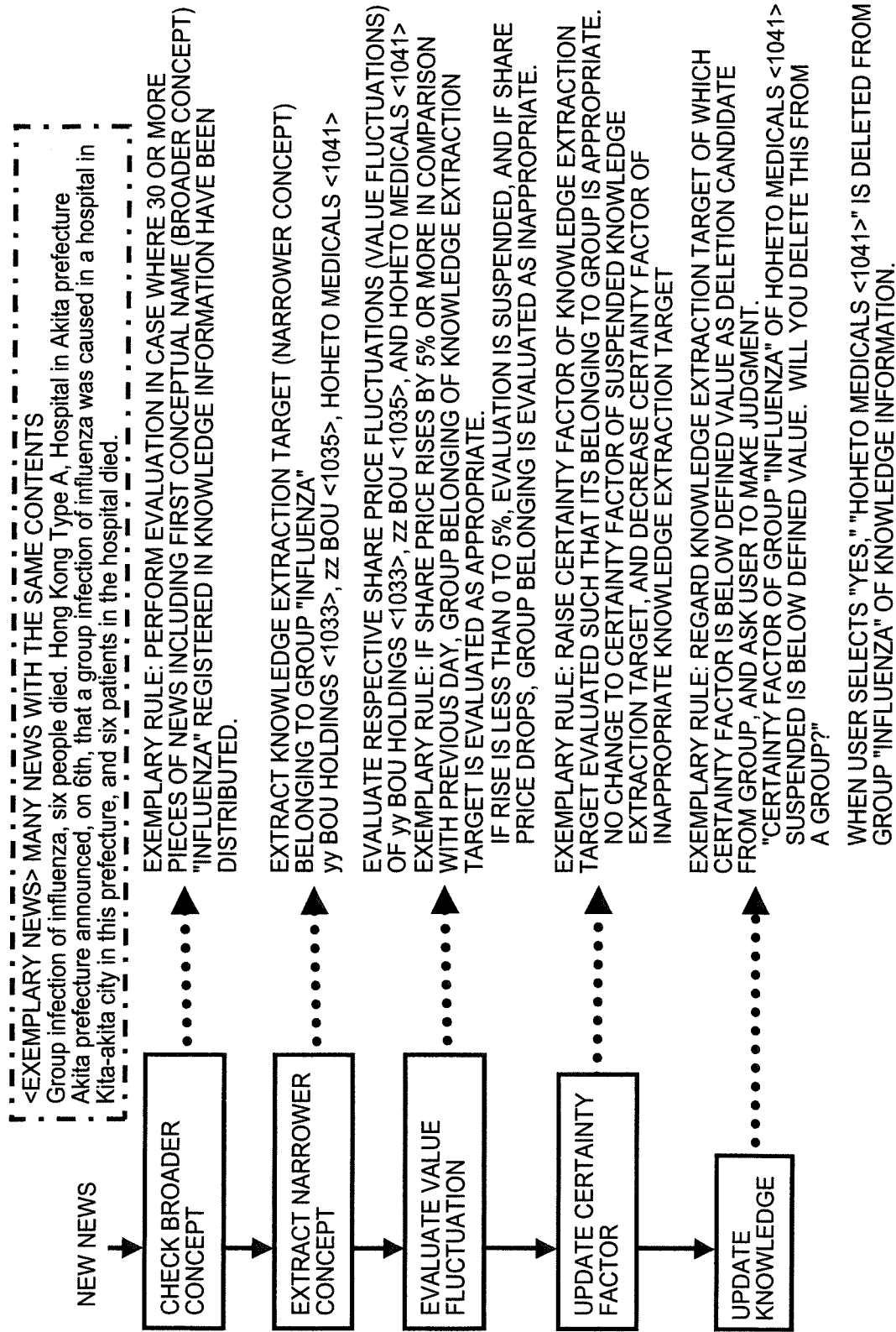


FIG. 23

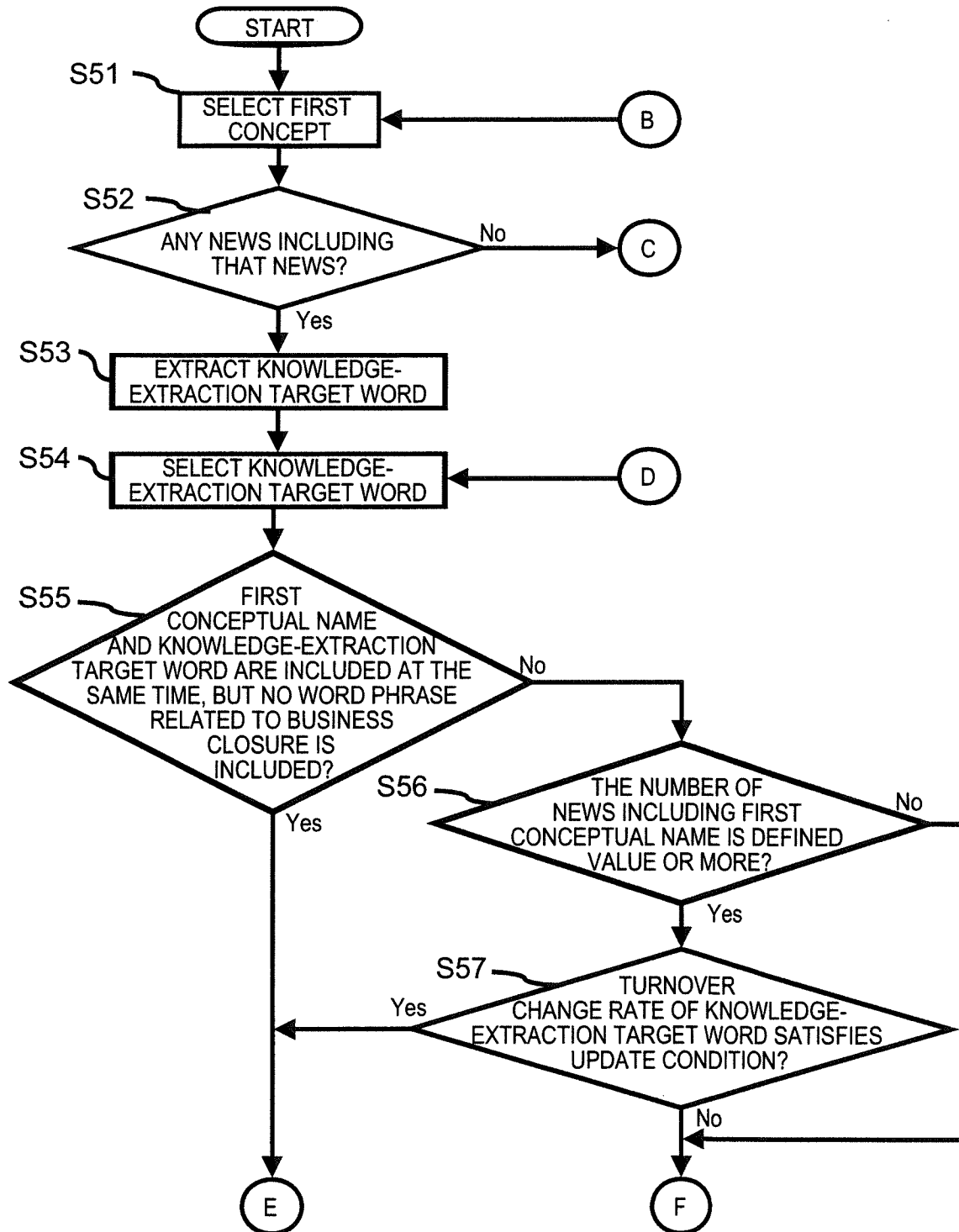


FIG. 24

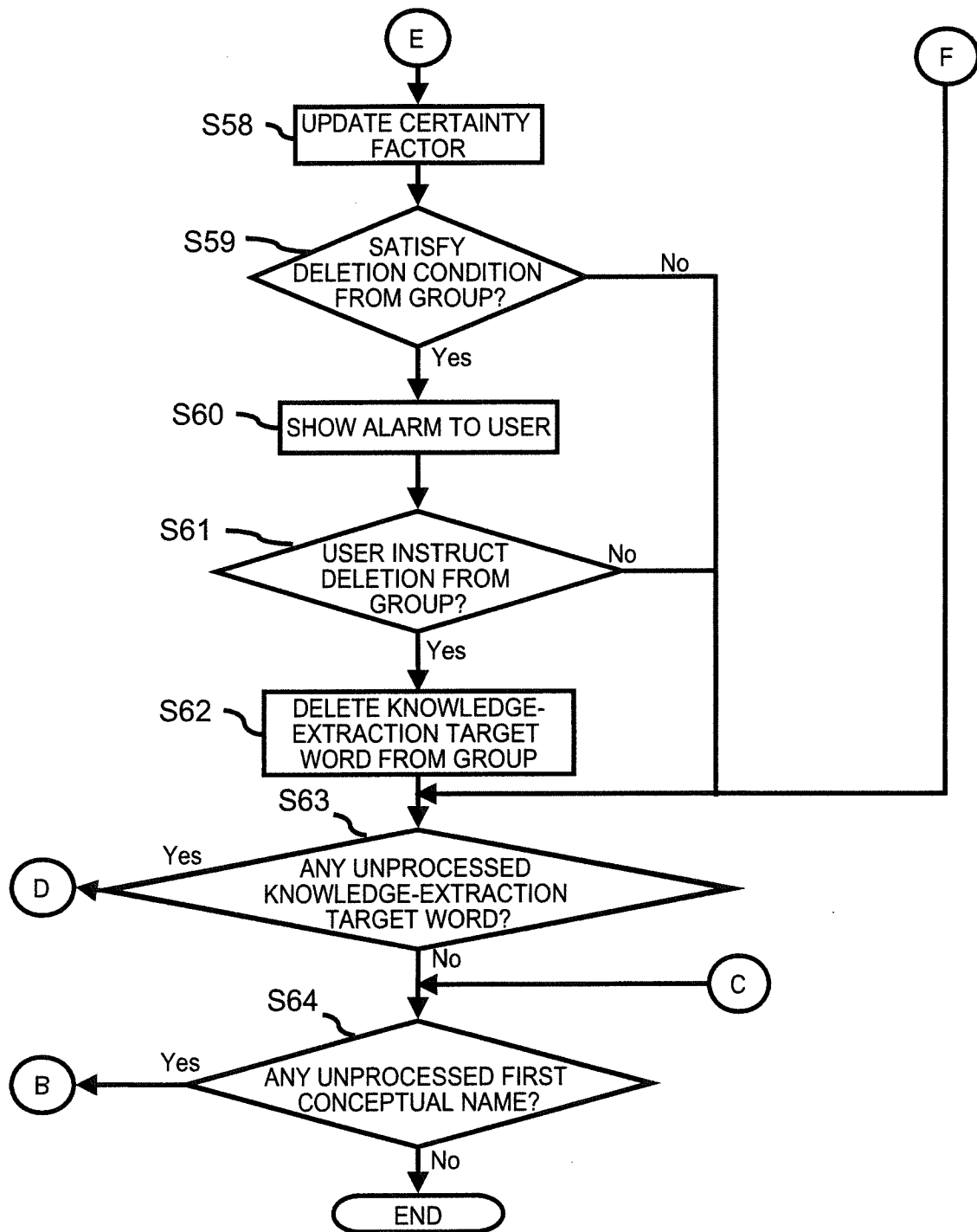


FIG. 25

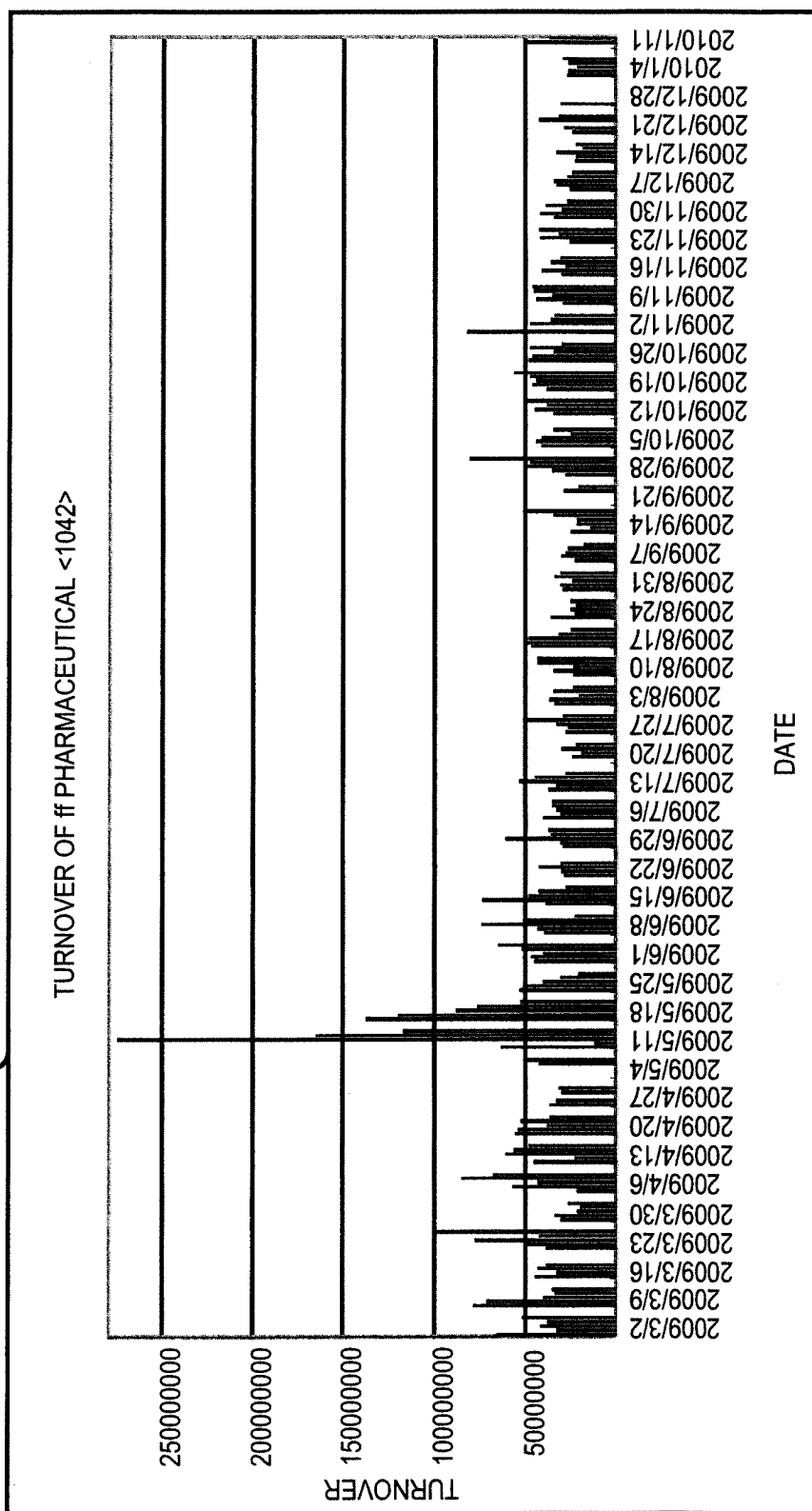


FIG. 26

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1	IN CASE JUDGMENT IN STEP S55 IS YES AND TURNOVER CHANGE RATE ≤ 1.1 IS SATISFIED, ADD 0.05 TO CERTAINTY FACTOR
2	IN CASE WHERE JUDGMENT IN STEP S55 IS YES AND TURNOVER CHANGE RATE > 1.1 IS SATISFIED, ADD (TURNOVER CHANGE RATE - 1.0) $\times$ 0.5 TO CERTAINTY FACTOR
3	IN CASE WHERE JUDGMENT IN STEP S56 IS YES AND TURNOVER CHANGE RATE > 1.1 IS SATISFIED, REDUCE (NEWS CHANGE RATE - TURNOVER CHANGE RATE) $\times$ 0.5 FROM CERTAINTY FACTOR
4	IN CASE WHERE JUDGMENT IN STEP S56 IS YES AND TURNOVER CHANGE RATE < 1.0 IS SATISFIED, ADD (NEWS CHANGE RATE - TURNOVER CHANGE RATE) $\times$ 0.5 TO CERTAINTY FACTOR

FIG. 27

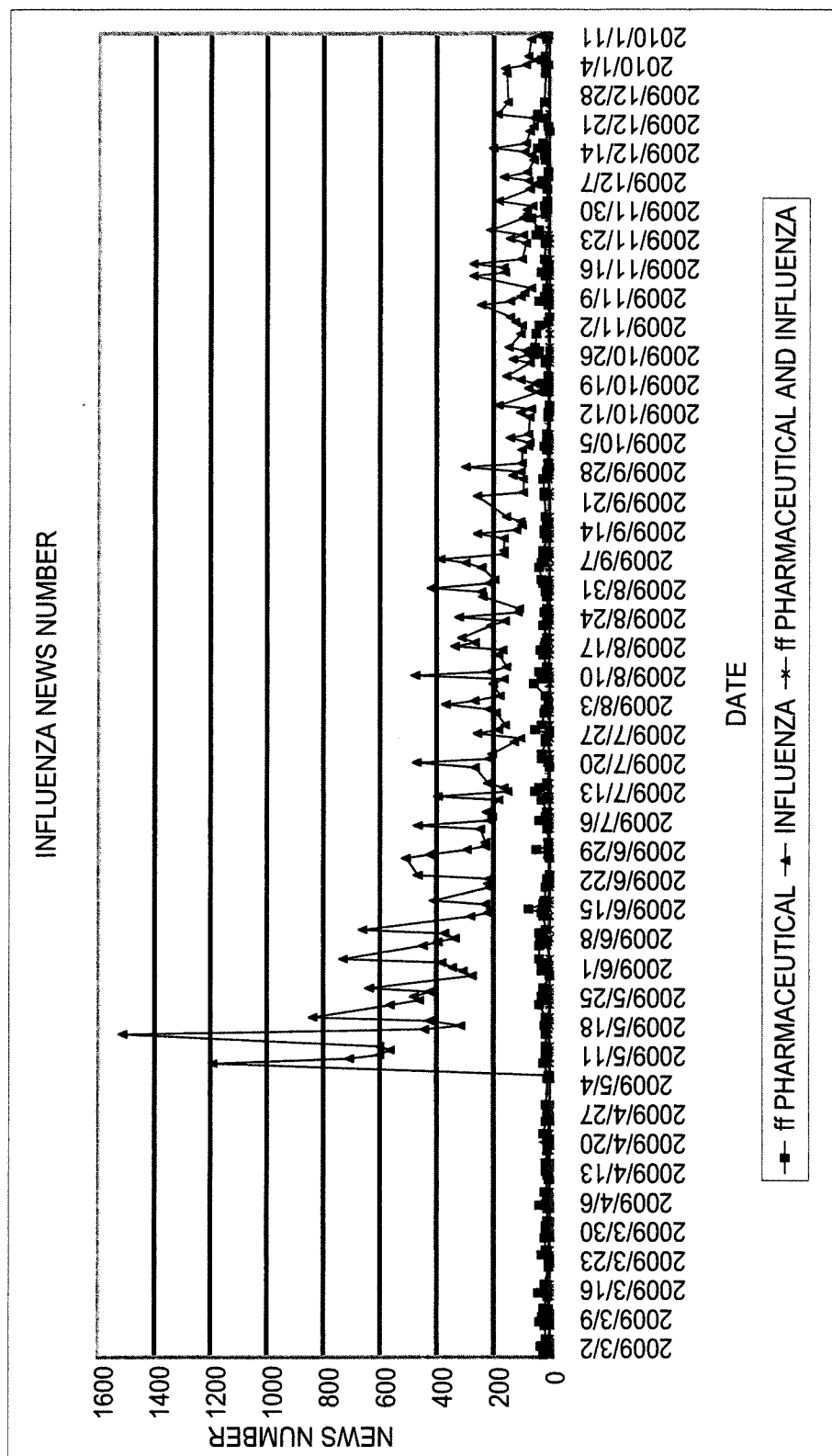


FIG. 28

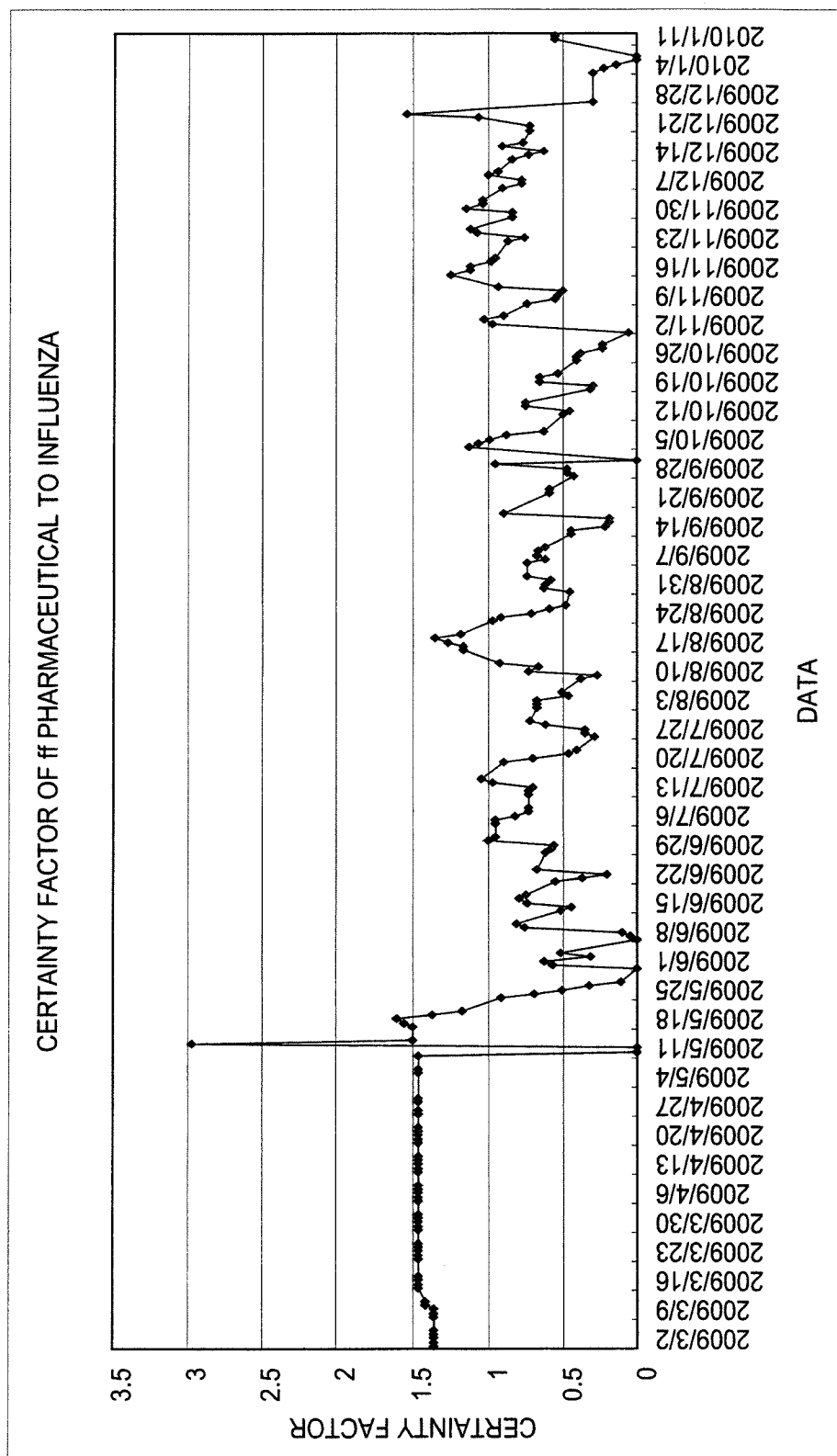


FIG. 29

CORRELATION COEFFICIENT		TARGET NEWS		
EVALUATION PERIOD		ONLY ISSUE NAME	ISSUE NAME OR GROUP NAME (WITHOUT CERTAINTY FACTOR)	ISSUE NAME OR GROUP NAME (WITH CERTAINTY FACTOR CORRECTION)
2010/8/31-2011/3/10		0.024	0.011	0.364

FIG. 30

<p>The government allegedly decided to push forward the private diversion of <u>Self-Defense Force</u> airplanes, and defense-related issues such as aa heavy industries <7191>, bb heavy industries <7192>, and cc industry <7193> are firm.</p>
<p>Defense-related issues are selectively bought due to <u>growing tension</u> on the Korean Peninsula.</p>

FIG. 31

116

KNOWLEDGE NO.	GROUP NAME	RELATED TERM
10	DEFENSE	SELF-DEFENSE, GROWING TENSION

FIG. 32

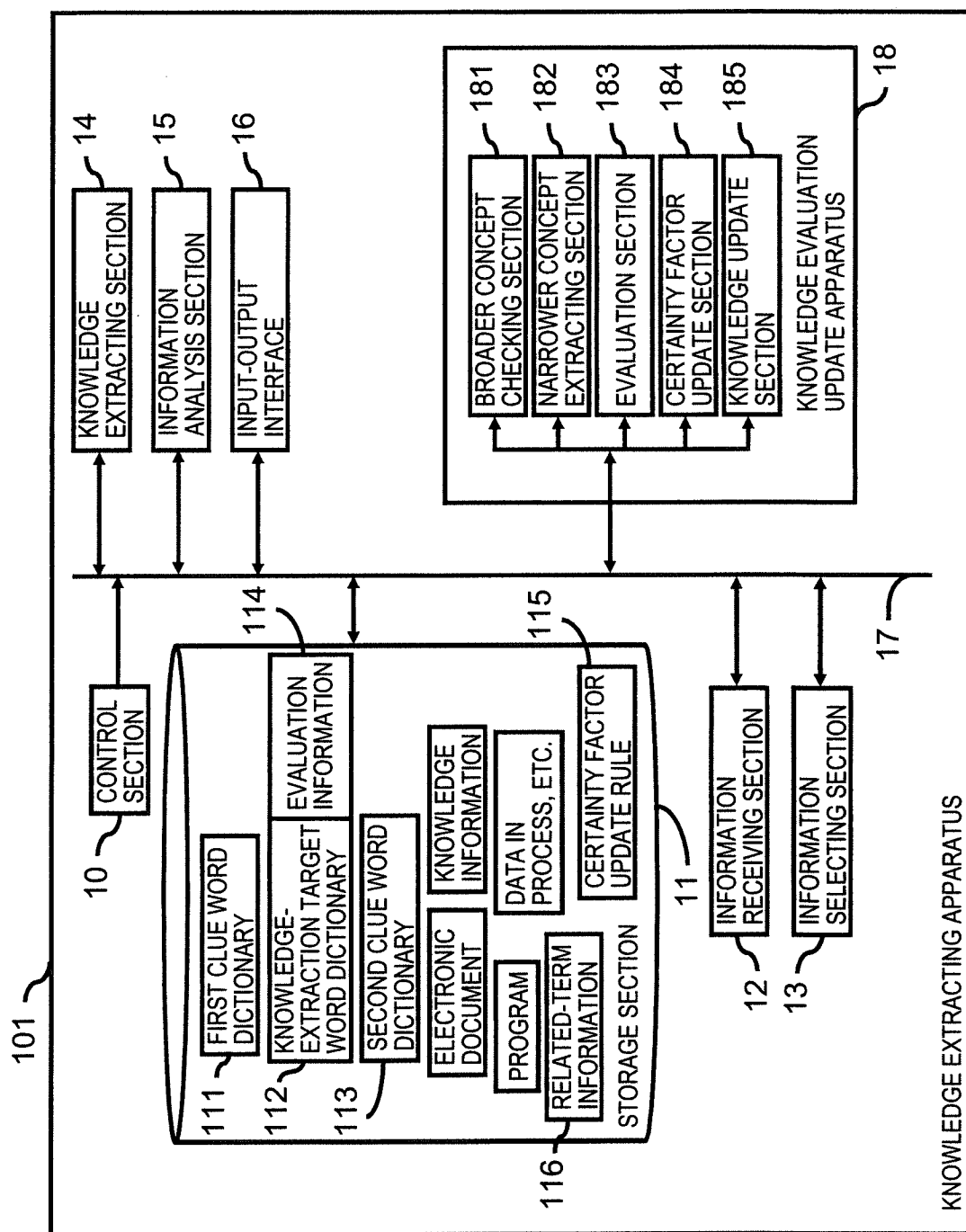


FIG. 33

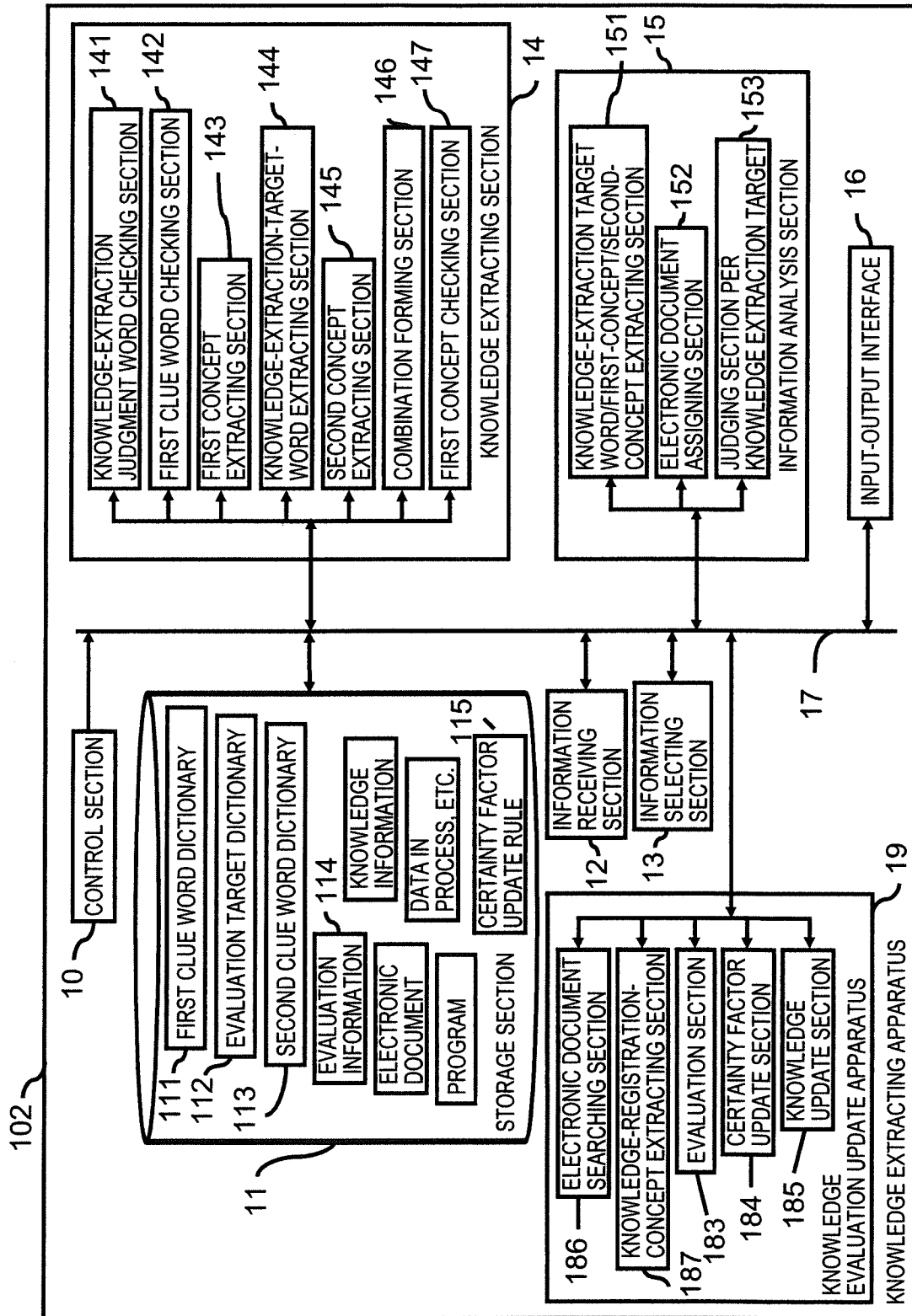


FIG. 34

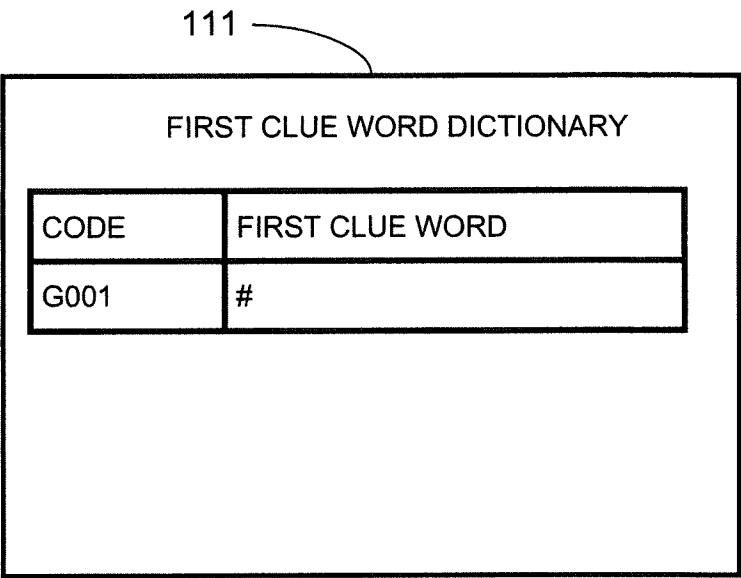


FIG. 35

112

KNOWLEDGE-EXTRACTION TARGET WORD DICTIONARY			
CODE	KNOWLEDGE-EXTRACTION TARGET WORD	PROGRAM NAME	KNOWLEDGE-EXTRACTION TARGET WORD EXPRESSION
A001	ACTRESS P		ACTRESS P, P, p, M
A002	ACTOR Q		ACTOR Q, Q, q
A003	COAT OF OFFICIAL TITLE M	DRAMA A	COAT OF M
A004	LINES OF OFFICIAL TITLE M	DRAMA A	LINES OF M
B001	OFFICIAL TITLE M	DRAMA A	m
B001	OFFICIAL TITLE M	DRAMA A	Mr. m

FIG. 36

113a

SECOND CLUE WORD DICTIONARY

CODE	SECOND CLUE WORD	DIRECTION	INTENSITY
t001	(;__;)	WEEP	1
t002	(T__T)	WEEP	2
t003	(ToT)	WEEP	2
t004	(*__*)	SURPRISE	1
t005	(□□)	SURPRISE	1
t006	(°□°)	SURPRISE	1
t007	(°Д°)	SURPRISE	1
t008	(^__^;)	IMPATIENCE	1
t009	(□□;)	IMPATIENCE	1
t010	(°Д°;)	IMPATIENCE	2
t011	(^__^)	LAUGH	1
t012	(^▽^)	LAUGH	2
t013	(^O^)	LAUGH	2
t014	(^O^)	LAUGH	2
t015	(ω)	LAUGH	1
t016	(´▽`)	LAUGH	1
t017	(·▽·)	LAUGH	1
t018	ww	LAUGH	1
t019	www	LAUGH	2
t020	wwwwww	LAUGH	3
t021	(`Д´)	ANGER	1
t022	(`^´)	ANGER	1

FIG. 37

ARTICLE ID	TIME STAMP	USER	BACKGROUND INFORMATION	MAIN BODY
1	2011/11/28 20:19	aaa		Q's performance is too stink for a serious scene LOLww #drama B
2	2011/11/28 22:11	bbb		m is too amazing LOLwww #drama A
3	2011/11/28 22:12	ccc		m is just too good at everything LOLww #drama A
4	2011/11/28 22:12	ddd		m is just too good at everything LOLww #drama A
5	2011/11/28 22:12	eee	ccc	m is too terrific LOLwww #drama A
6	2011/11/28 22:20	fff		m is too good at playing volleyball. LOL. It's been a while since I played volleyball.
7	2011/11/28 22:22	ggg		m is awesome ww #drama A
8	2011/11/28 22:34	hhh		m is awesome(:_;) #drama A

FIG. 38

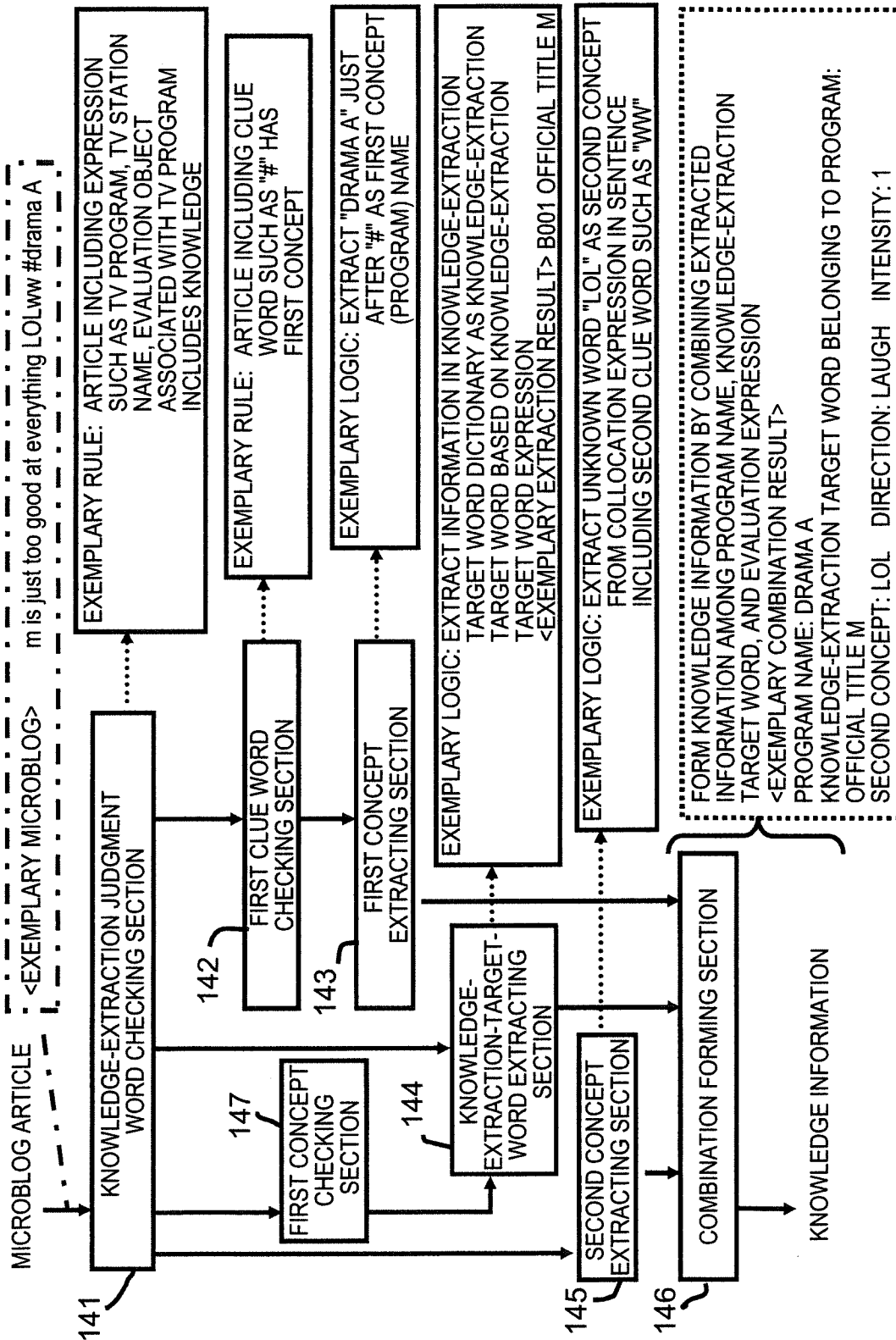


FIG. 39

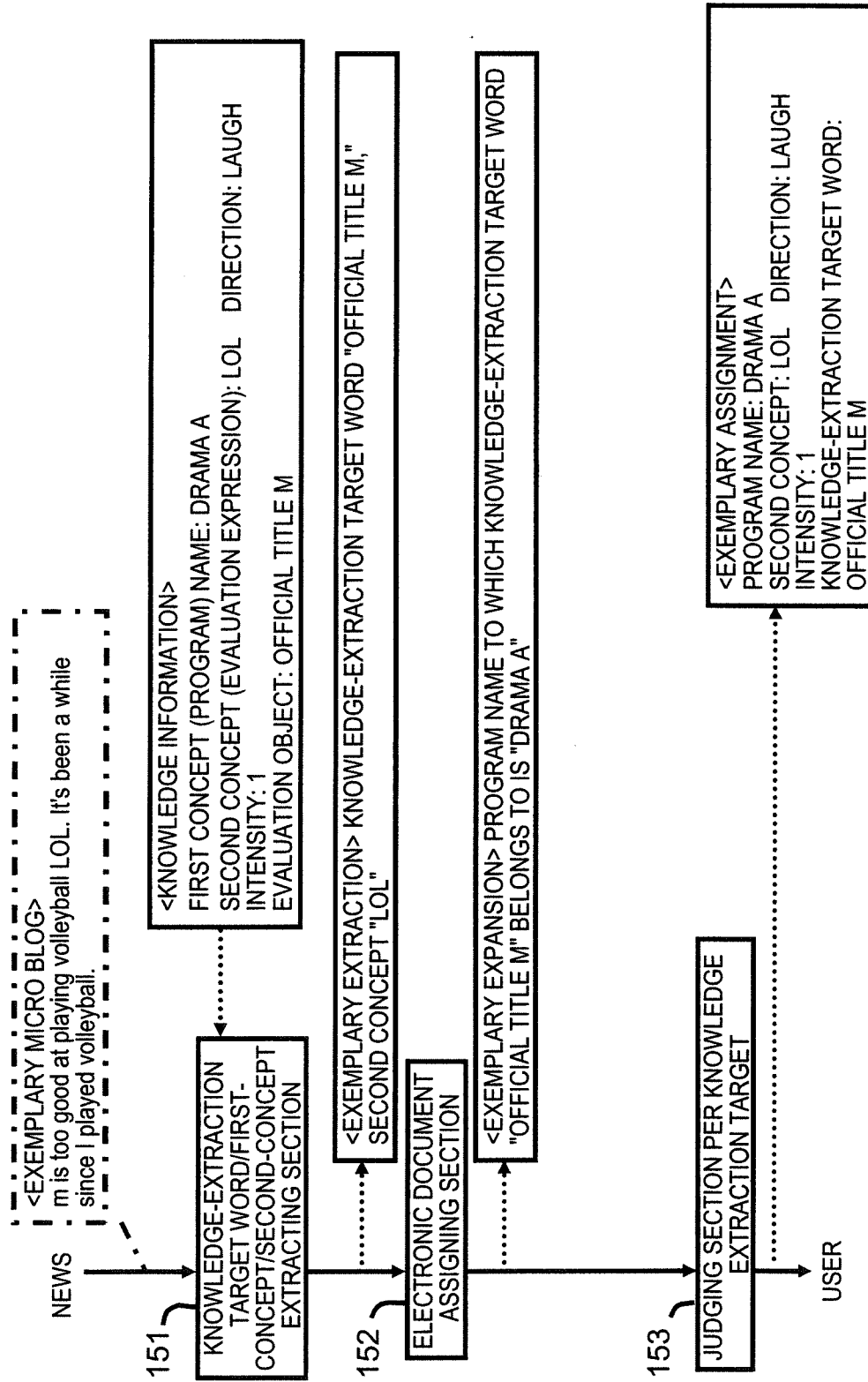


FIG. 40

KNOWLEDGE INFORMATION			
TARGET	EVENT	TIME STAMP	SIMILARITY INFORMATION
OFFICIAL TITLE V	GOOD AT EVERYTHING	2011/1/28 22:12	30
OFFICIAL TITLE V	VOLLEYBALL	2011/1/28 22:20	10

FIG. 41

FIRST CLUE WORD	SECOND CLUE WORD	KNOWLEDGE-EXTRACTION TARGET WORD	CERTAINTY FACTOR	CERTAINTY FACTOR UPDATING HISTORY	CERTAINTY FACTOR UPDATING HISTORY
DRAMA A	LOL	OFFICIAL TITLE M	0.3	NOVEMBER 28, 2011 -0.1	
DRAMA B	LOL	ACTOR Q	1.5	NOVEMBER 28, 2012 +0.2	

FIG. 42