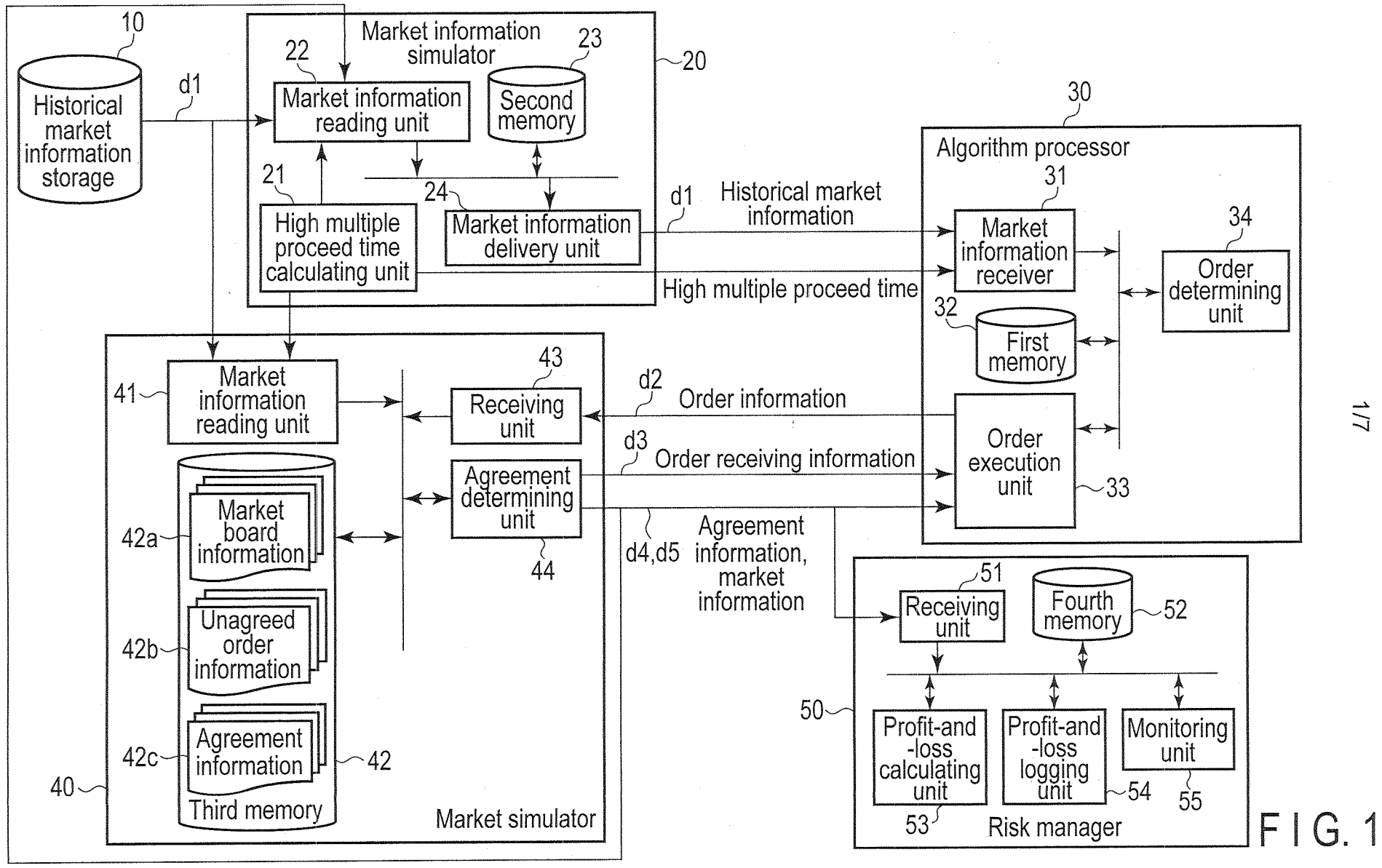

10
Historical market information storage
d1
Market information simulator
20
22
Market information reading unit
23
Second memory
21
High multiple proceed time calculating unit
24
Market information delivery unit
d1
Historical market information
High multiple proceed time
30
Algorithm processor
31
Market information receiver
34
Order determining unit
32
First memory
Order execution unit
33
41
Market information reading unit
43
Receiving unit
d2
Order information
d3
Order receiving information
Agreement determining unit
44
d4,d5
Agreement information, market information
42a
Market board information
42b
Unagreed order information
42c
Agreement information
42
Third memory
40
Market simulator
50
51
Receiving unit
Fourth memory
52
Profit-and-loss calculating unit
Profit-and-loss logging unit
54
Monitoring unit
55
53
Risk manager

FIG. 1

42a

Market board information		
Number	Item name	Set value example
	Date	
1	Time stamp	9:00:01,000100
2	Issue code	6502
3	Asked price 1	420
4	⋮	
5	Asked price 10	460
6	Asked quantity 1	3000
7	⋮	
8	Asked quantity 10	5000
9	Bid price 1	449
10	⋮	
11	Bid price 10	440
12	Bid quantity 1	5000
13	⋮	
14	Bid quantity 10	8000
15	Sell market order quantity	10000
16	Buy market order quantity	12000
17	Last price	460
18	Volume	1,000,5000

FIG. 2

Side	Price	Agreement determining conditions and quantity executed
Buy	Limit price	Limit price ≥ Indicative quantity corresponding to asked price ~ (multiple prices)
	Market price	Indicative quantity of best (lowest) indicative price ~
Sell	Limit price	Limit price ≤ Indicative quantity corresponding to bid price ~ (multiple prices)
	Market price	Indicative quantity of best (highest) indicative price ~

FIG. 3

	Item name	Calculation method
1	Buy quantity	Integration of buy quantities
2	Sell quantity	Integration of selling quantities
3	Net position	Buy quantity − selling quantity
4	Buy amount	∑ buy quantity × execution price
5	Sell amount	∑ selling quantity × execution price
6	Position amount	Net position × last price
7	Profit and loss	Position amount − buy amount + sell amount
8	VAR	Standard deviation of profit and loss

FIG. 4

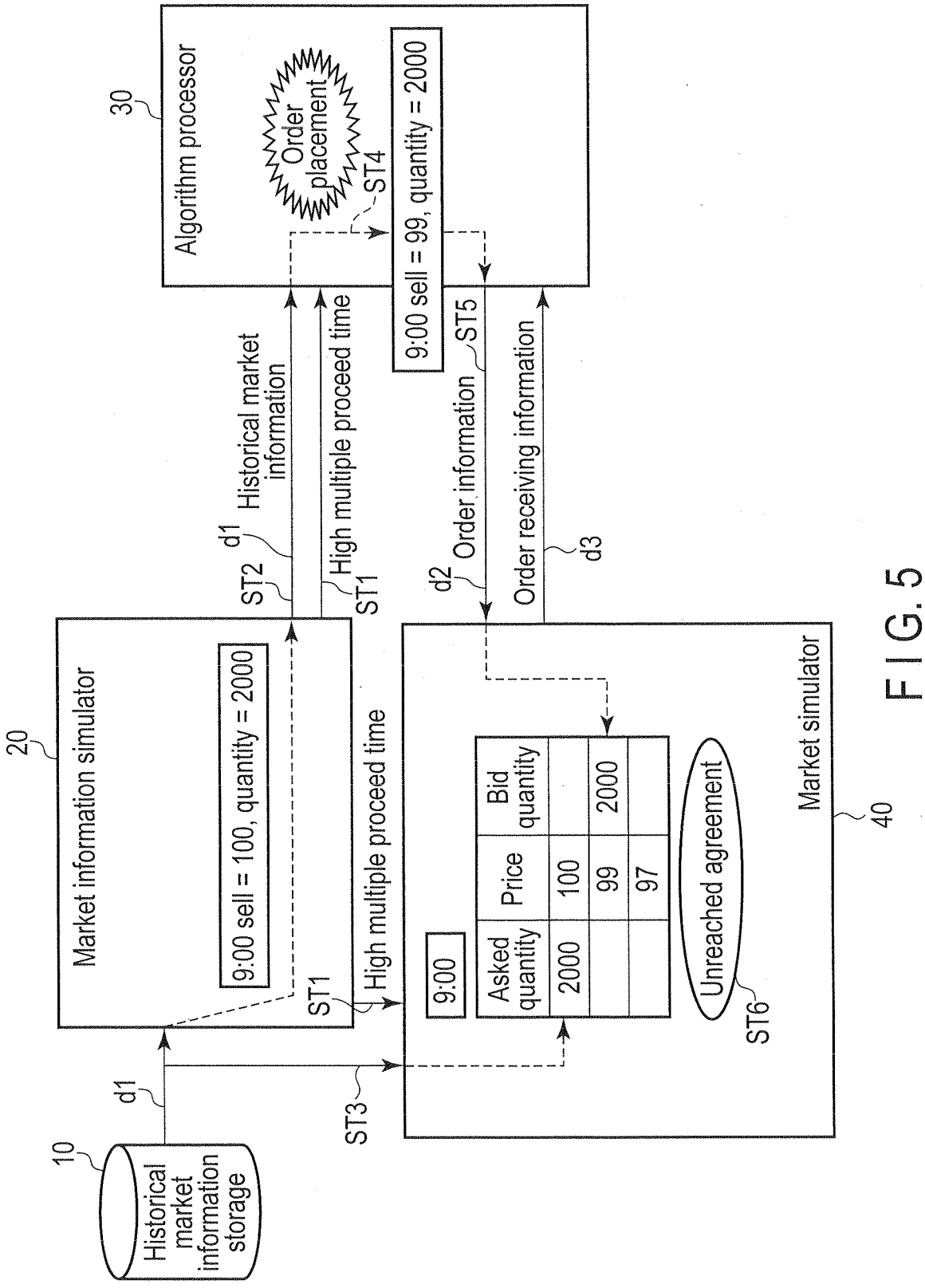

10
Historical market information storage
d1
ST3
20
Market information simulator
9:00 sell = 100, quantity = 2000
ST1
High multiple proceed time
d1
Historical market information
ST2
High multiple proceed time
ST1
30
Algorithm processor
Order placement
ST4
9:00 sell = 99, quantity = 2000
ST5
d2
Order information
Order receiving information
d3
9:00
Asked quantity
Price
Bid quantity
2000
100
99
97
2000
Unreached agreement
ST6
Market simulator
40

FIG. 5

d1

Time stamp	Issue code	Asked price	Asked quantity
09:00:01. 234	6502	100	2000

FIG. 6

d2

Order time stamp	Issue code	Sell/buy	Price	Quantity
09:00:03. 000	6502	2: buy	99	2000

FIG. 7

d3

Order time stamp	Issue code	Sell/buy	Price	Quantity
09:00:03. 000	6502	2: buy	99	2000

FIG. 8

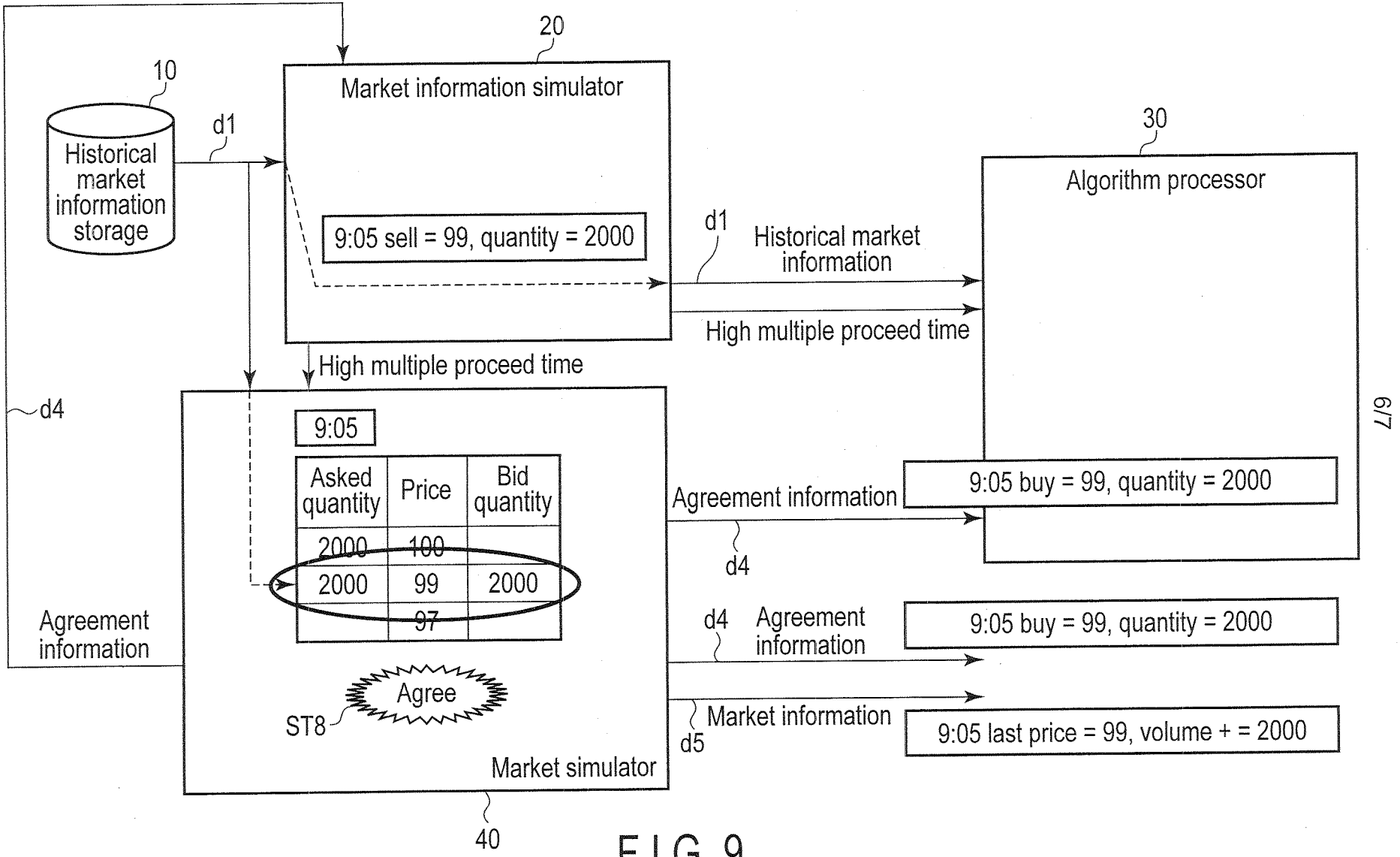

10
Historical market information storage
d1
20
Market information simulator
9:05 sell = 99, quantity = 2000
30
Algorithm processor
d1
Historical market information
High multiple proceed time
High multiple proceed time
d4
9:05
Asked quantity
Price
Bid quantity
2000
100
2000
99
2000
97
Agreement information
Agree
ST8
Market simulator
40
Agreement information
d4
9:05 buy = 99, quantity = 2000
d4
Agreement information
9:05 buy = 99, quantity = 2000
Market information
d5
9:05 last price = 99, volume + = 2000

FIG. 9

d1

Time stamp	Issue code	Asked price	Asked quantity
09:05:02. 001	6502	99	2000

FIG. 10

d4

Time stamp	Issue code	Execution price	Buy quantity
09:05:03. 000	6502	99	2000

FIG. 11

d5

Time stamp	Issue code	Last price	Volume
09:05:04. 000	6502	99	2000

FIG. 12