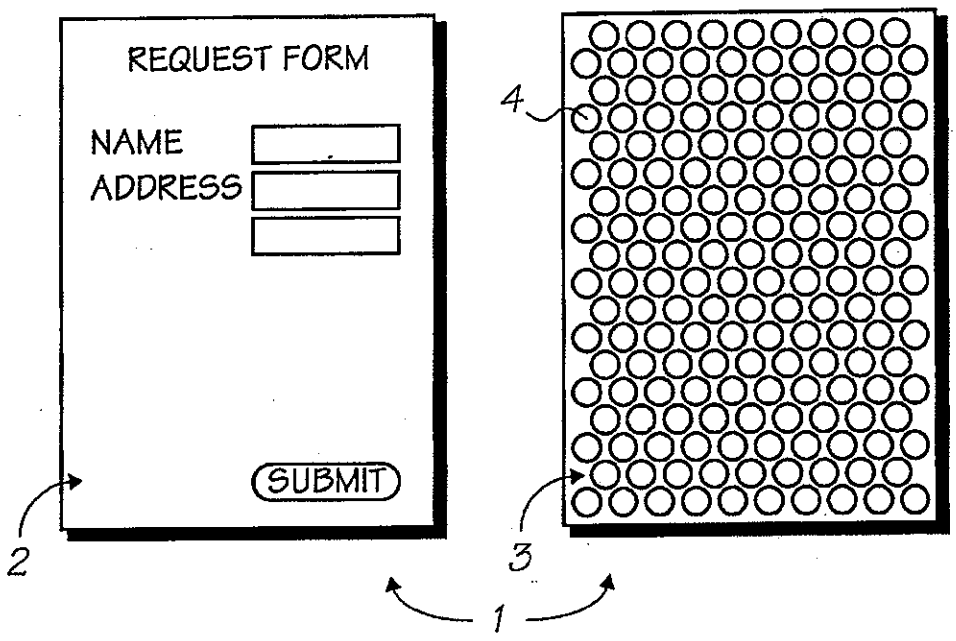

REQUEST FORM
NAME
ADDRESS
SUBMIT
2
3
4
1

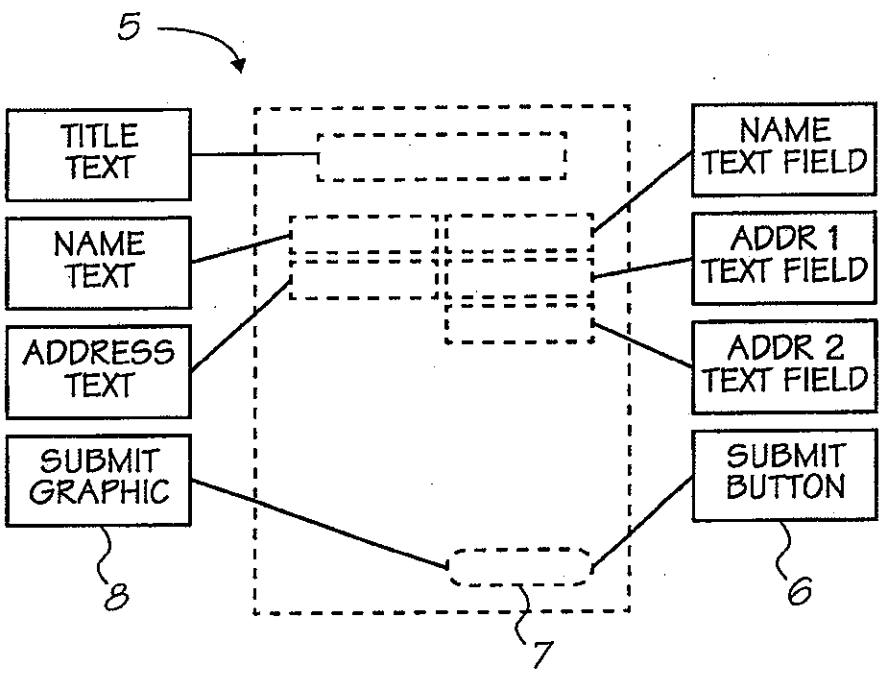

5
TITLE TEXT
NAME TEXT
ADDRESS TEXT
SUBMIT GRAPHIC
NAME TEXT FIELD
ADDR 1 TEXT FIELD
ADDR 2 TEXT FIELD
SUBMIT BUTTON
8
7
6

FIG. 1

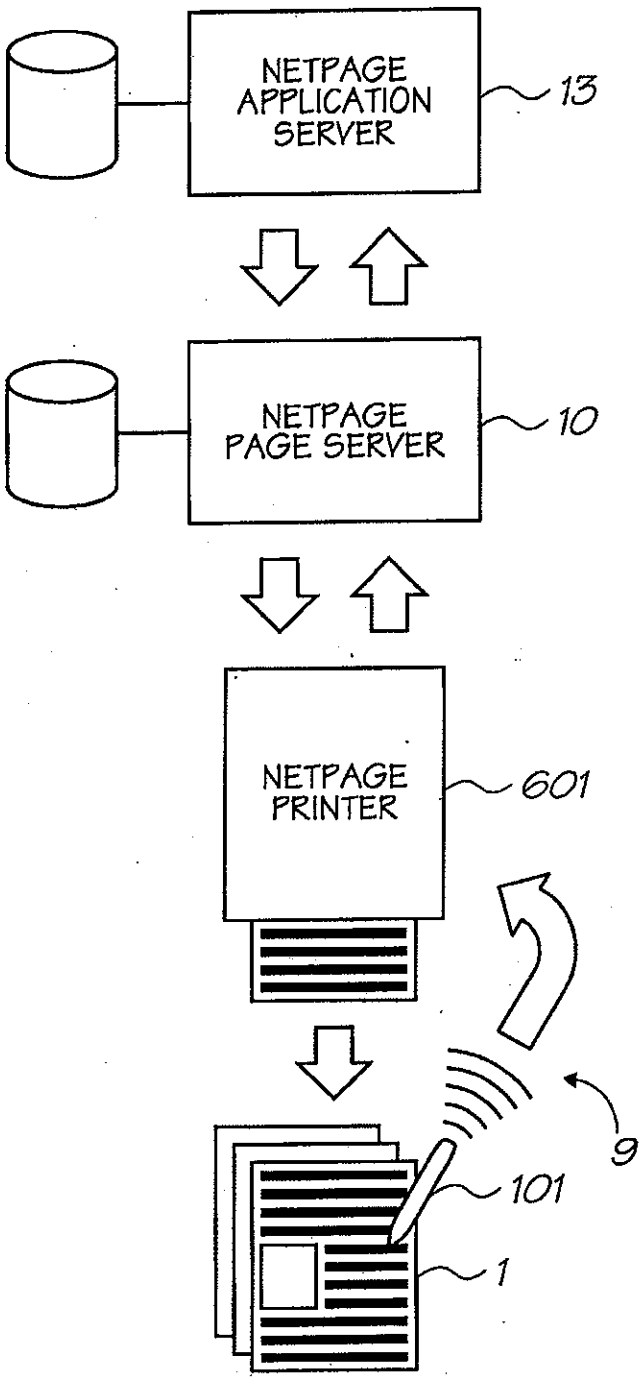

NETPAGE
APPLICATION
SERVER
13
NETPAGE
PAGE SERVER
10
NETPAGE
PRINTER
601
9
101
1

FIG. 2

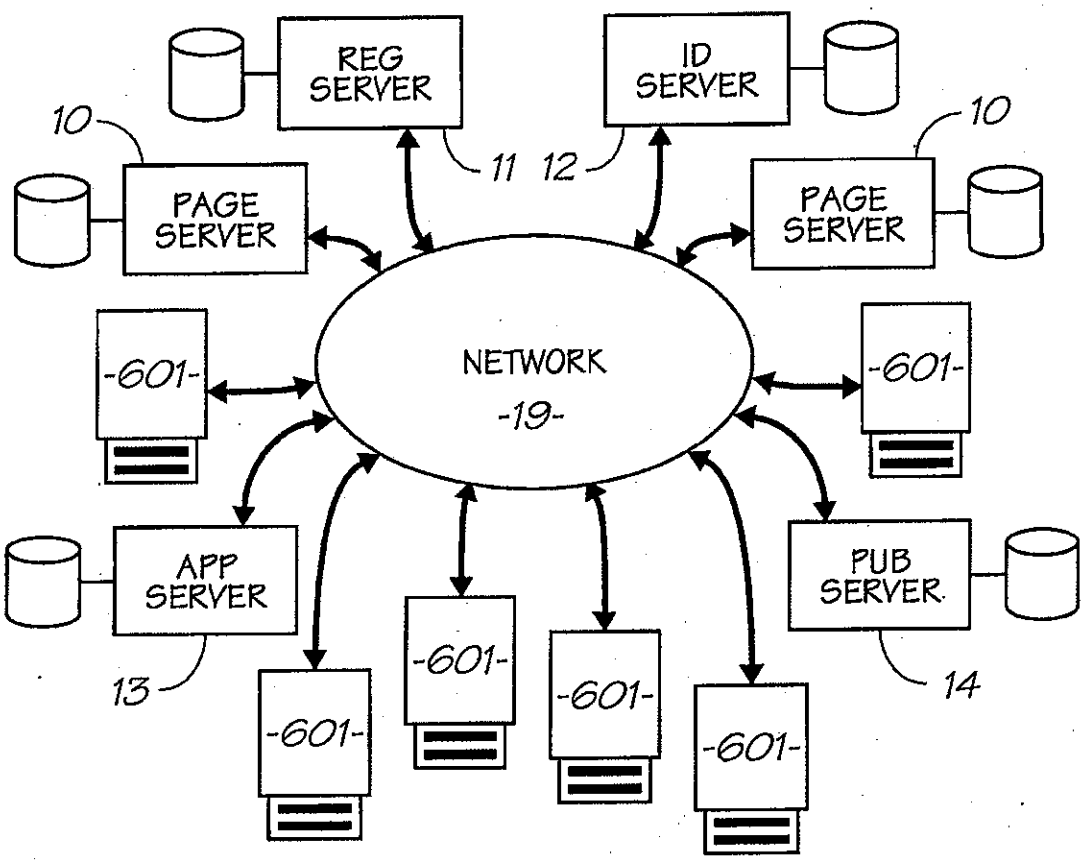

REG SERVER
ID SERVER
10
PAGE SERVER
11
12
10
PAGE SERVER
-601-
NETWORK
-19-
-601-
APP SERVER
PUB SERVER
13
14
-601-
-601-
-601-
-601-

FIG. 3

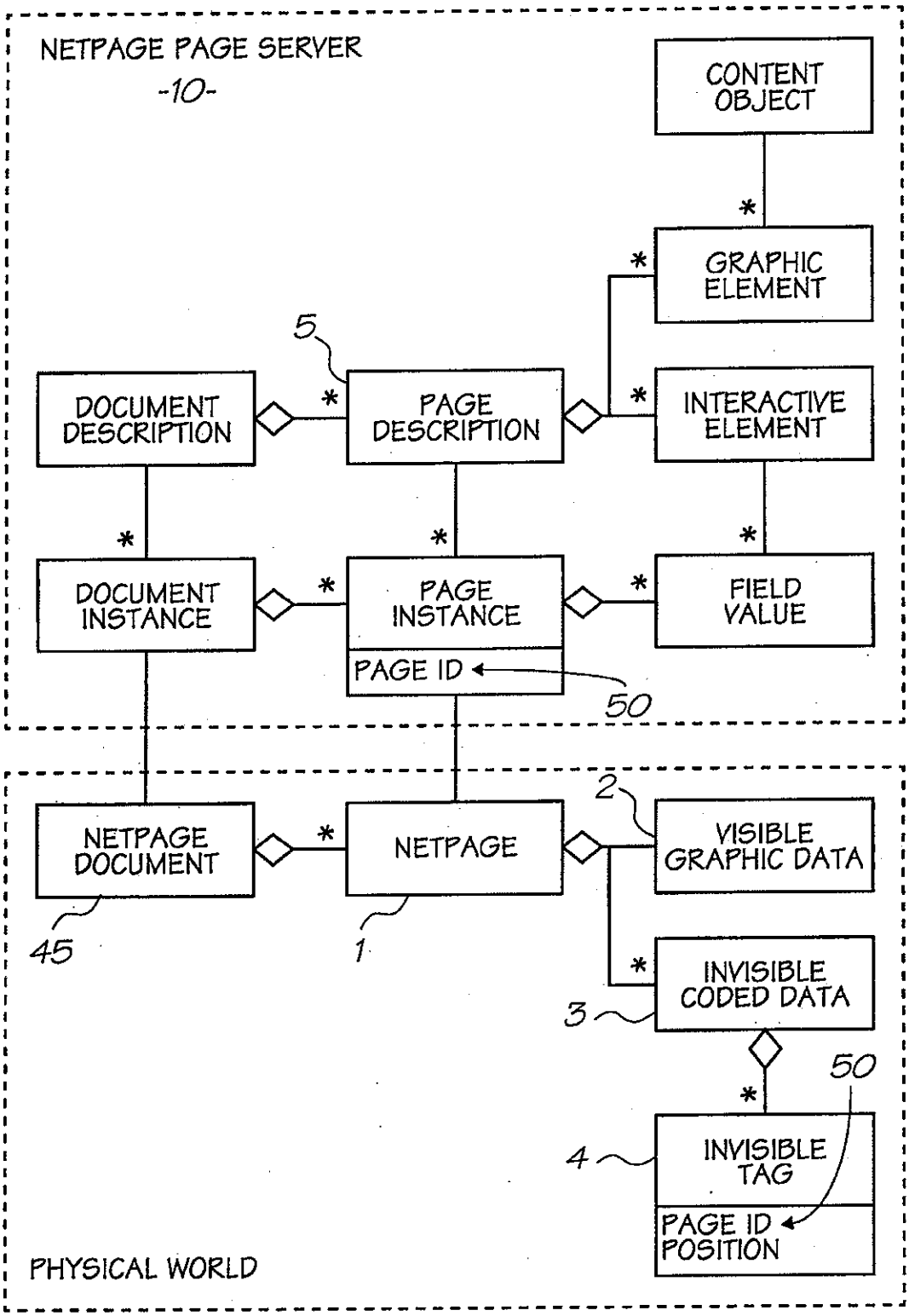

NETPAGE PAGE SERVER
-10-
CONTENT OBJECT
GRAPHIC ELEMENT
5
DOCUMENT DESCRIPTION
PAGE DESCRIPTION
INTERACTIVE ELEMENT
DOCUMENT INSTANCE
PAGE INSTANCE
FIELD VALUE
PAGE ID
50
2
NETPAGE DOCUMENT
NETPAGE
VISIBLE GRAPHIC DATA
45
1
INVISIBLE CODED DATA
3
50
4
INVISIBLE TAG
PAGE ID POSITION
PHYSICAL WORLD

FIG. 4

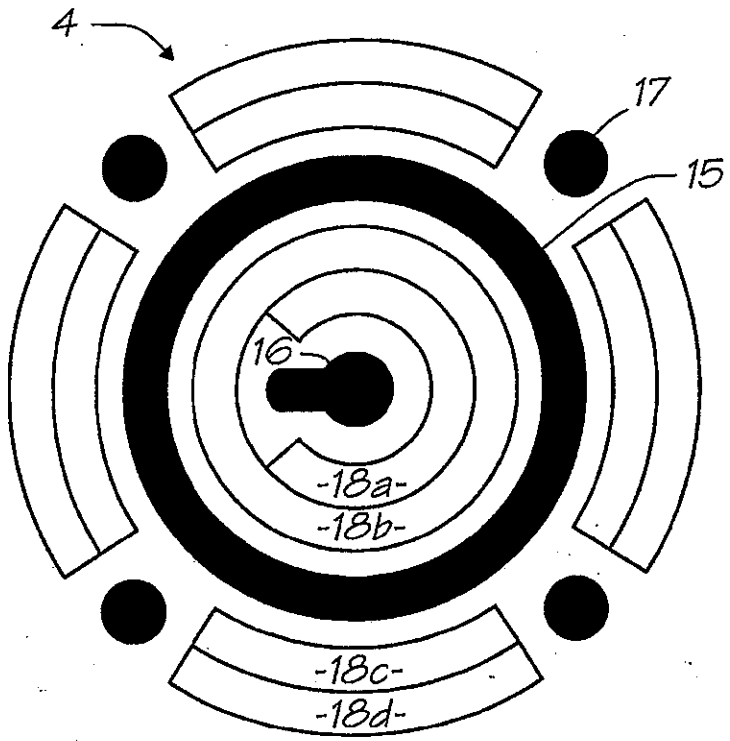


FIG. 5a

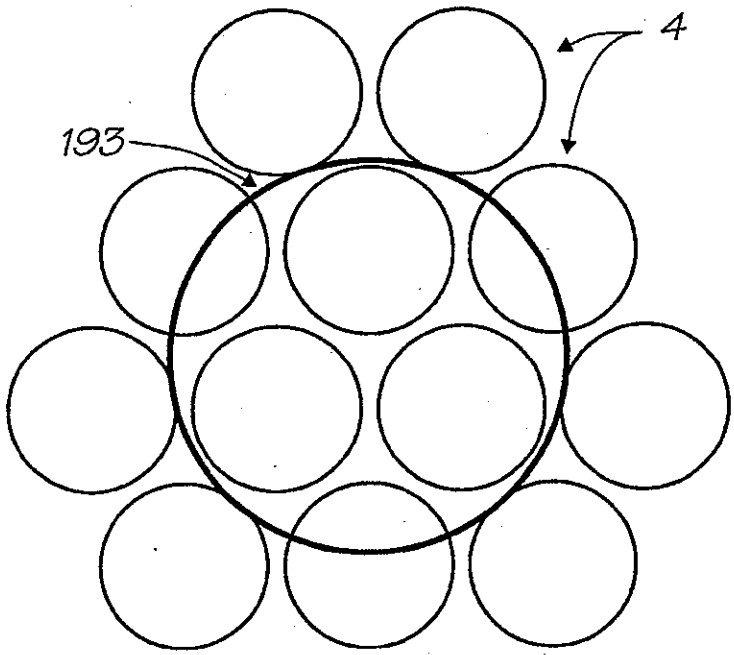


FIG. 5b

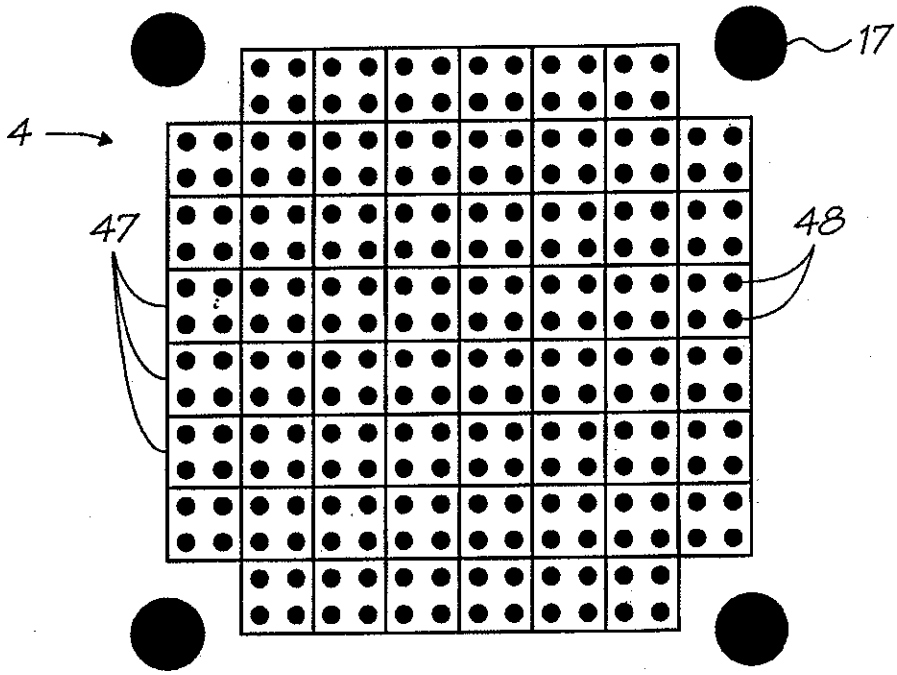


FIG. 6a

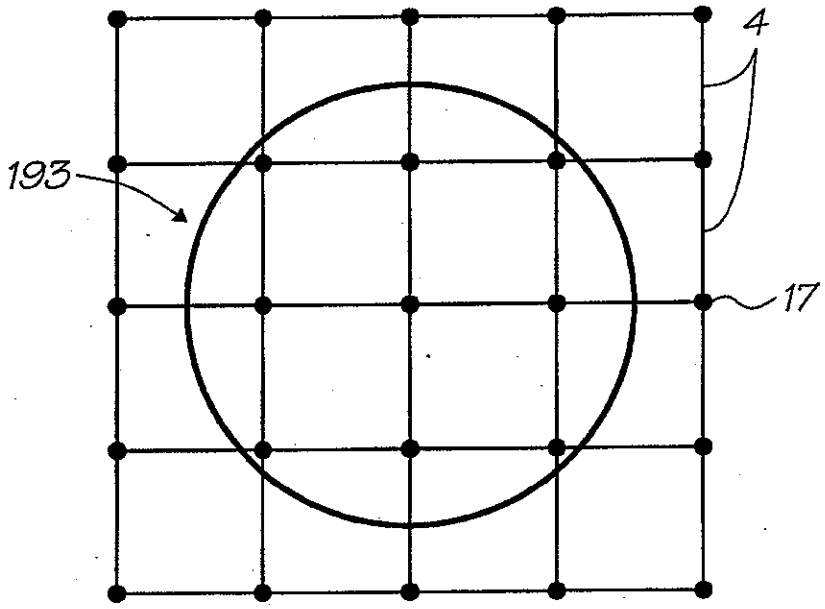


FIG. 6b

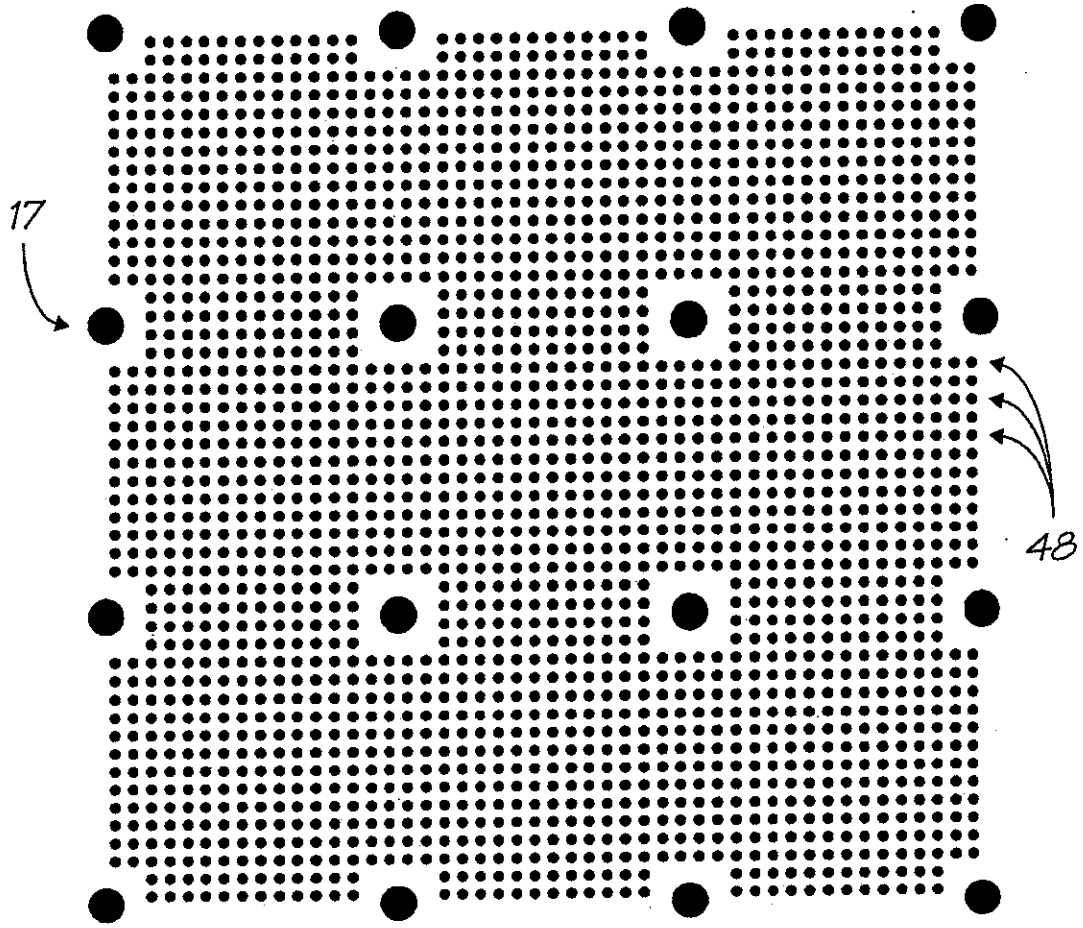

17
48

FIG. 6c

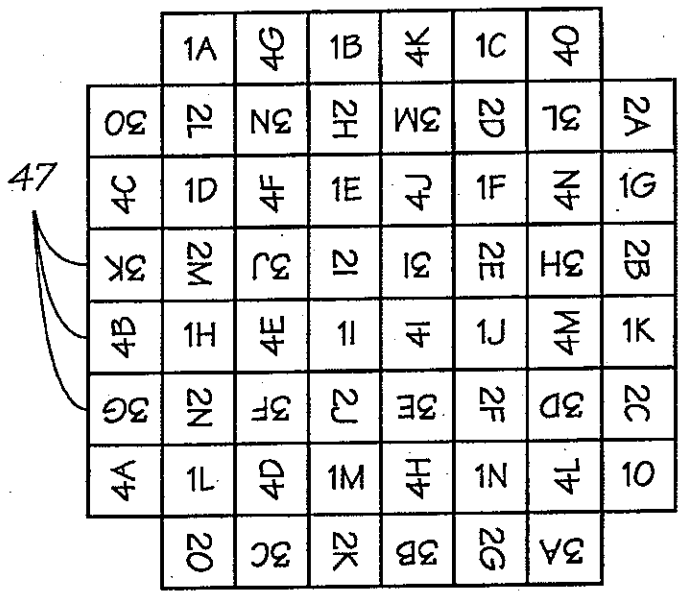

47
1A 4G 1B 4K 1C 4O
3O 2L 3N 2H 3M 2D 3L 2A
4C 1D 4F 1E 4J 1F 4N 1G
3K 2M 3J 2I 3I 2E 3H 2B
4B 1H 4E 1I 4I 1J 4M 1K
3G 2N 3F 2J 3E 2F 3D 2C
4A 1L 4D 1M 4H 1N 4L 1O
2O 3C 2K 3B 2G 3A

FIG. 6d

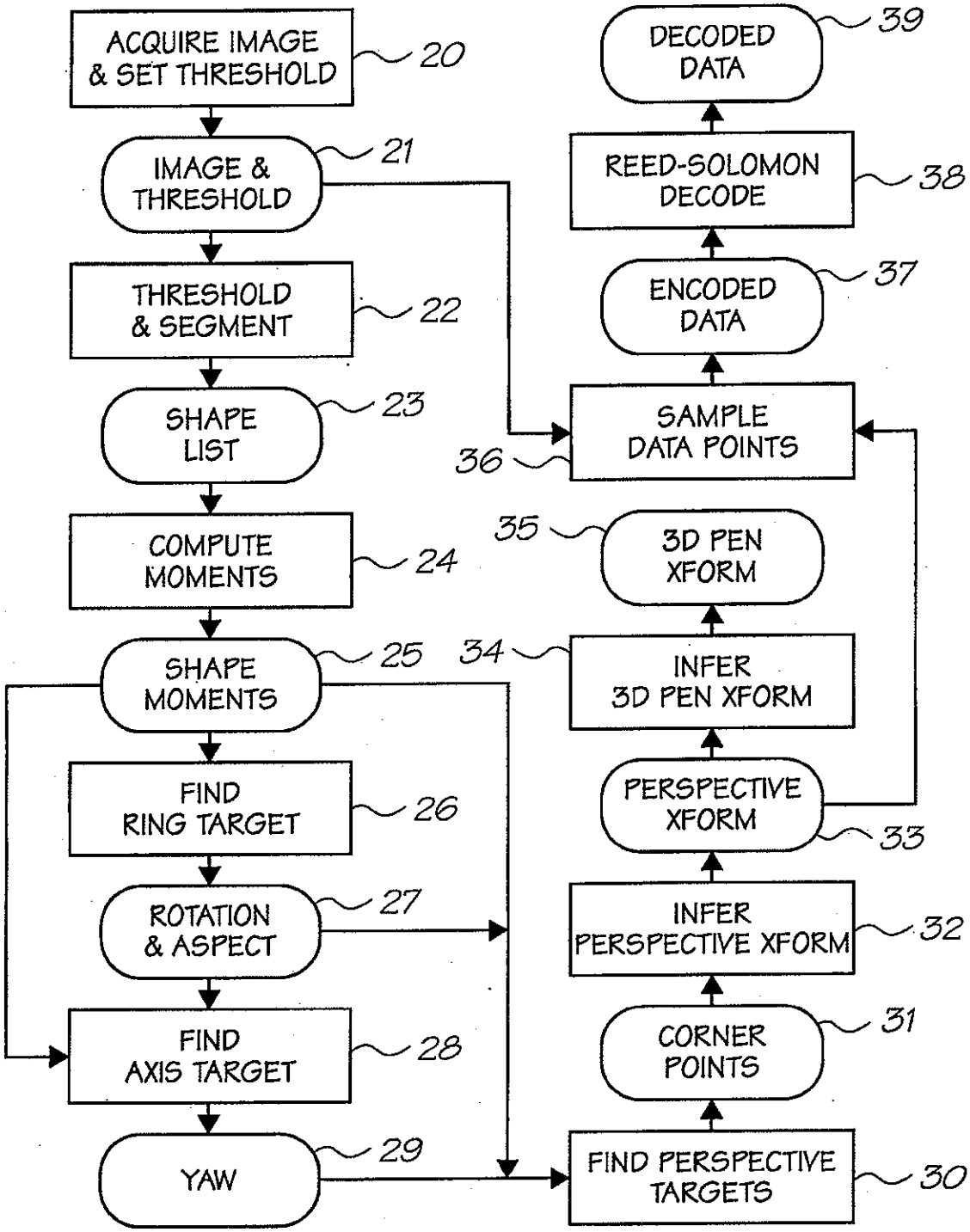

ACQUIRE IMAGE & SET THRESHOLD
20
IMAGE & THRESHOLD
21
THRESHOLD & SEGMENT
22
SHAPE LIST
23
COMPUTE MOMENTS
24
SHAPE MOMENTS
25
FIND RING TARGET
26
ROTATION & ASPECT
27
FIND AXIS TARGET
28
YAW
29
FIND PERSPECTIVE TARGETS
30
CORNER POINTS
31
INFER PERSPECTIVE XFORM
32
PERSPECTIVE XFORM
33
INFER 3D PEN XFORM
34
3D PEN XFORM
35
SAMPLE DATA POINTS
36
ENCODED DATA
37
REED-SOLOMON DECODE
38
DECODED DATA
39

FIG. 7

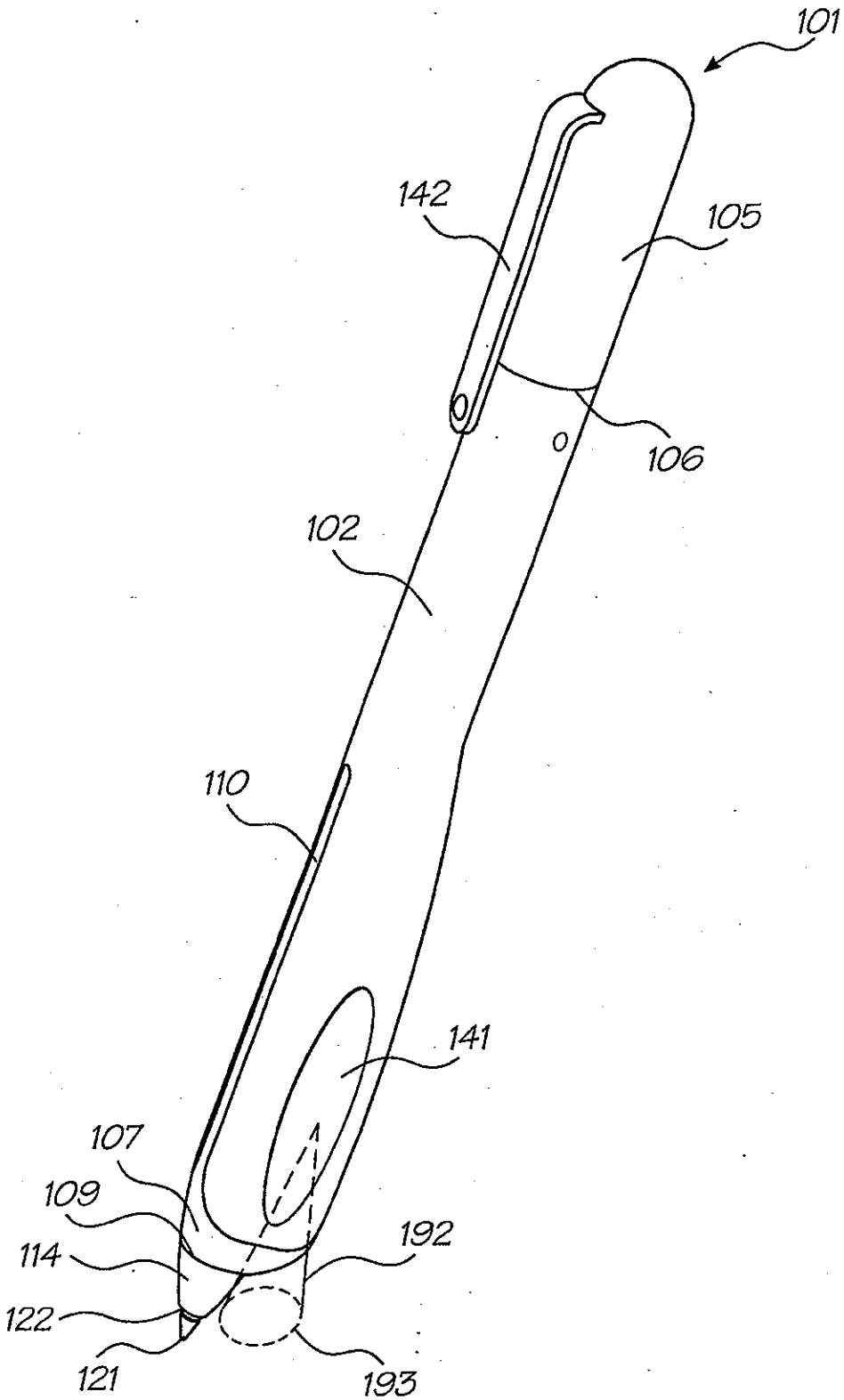


FIG. 8

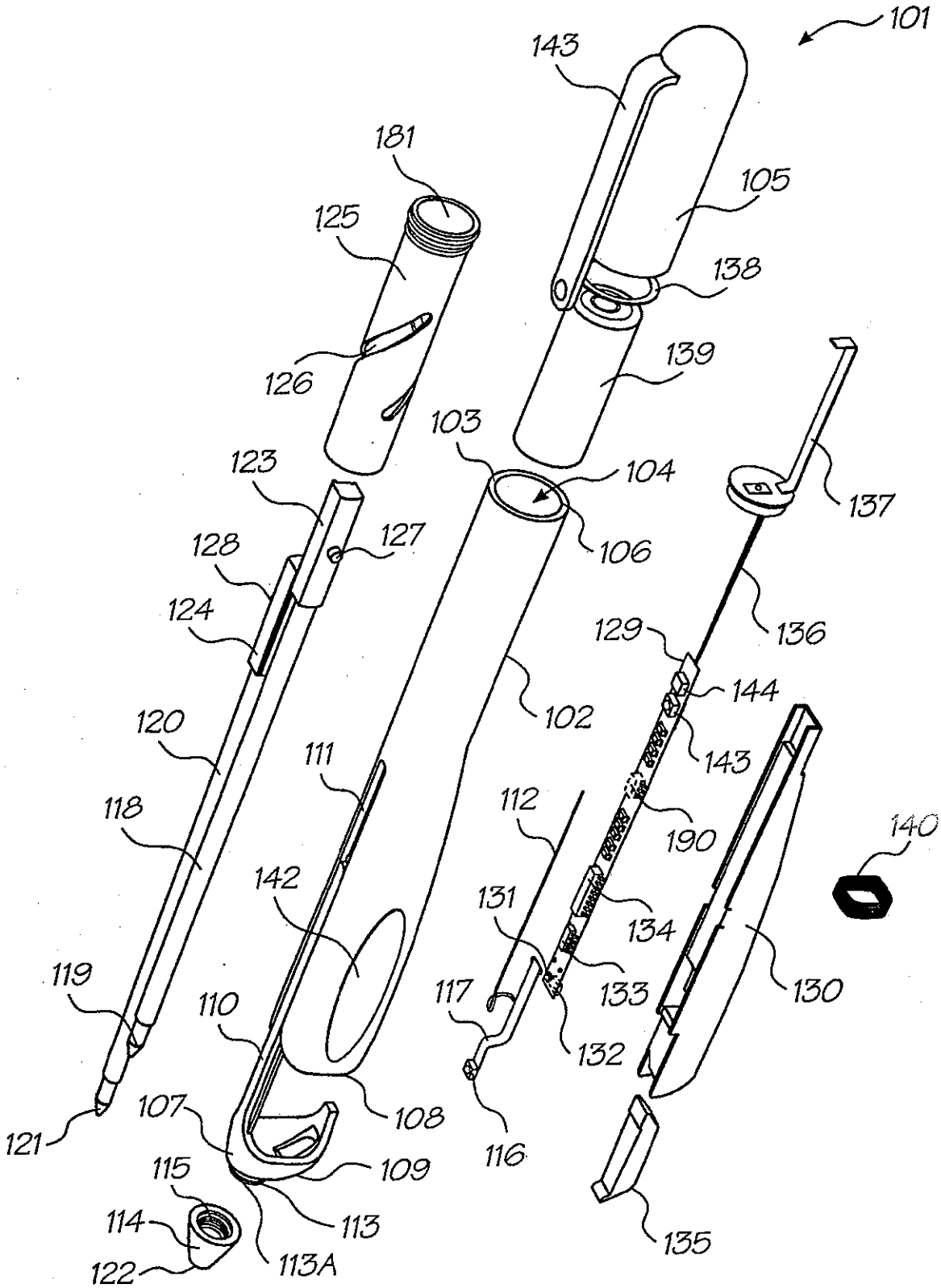

101
143
181
105
125
138
126
139
103
104
123
137
106
127
128
136
124
129
102
144
120
143
111
112
118
190
140
142
131
134
119
133
130
110
117
132
107
108
116
109
115
113
114
135
113A
122
121

FIG. 9

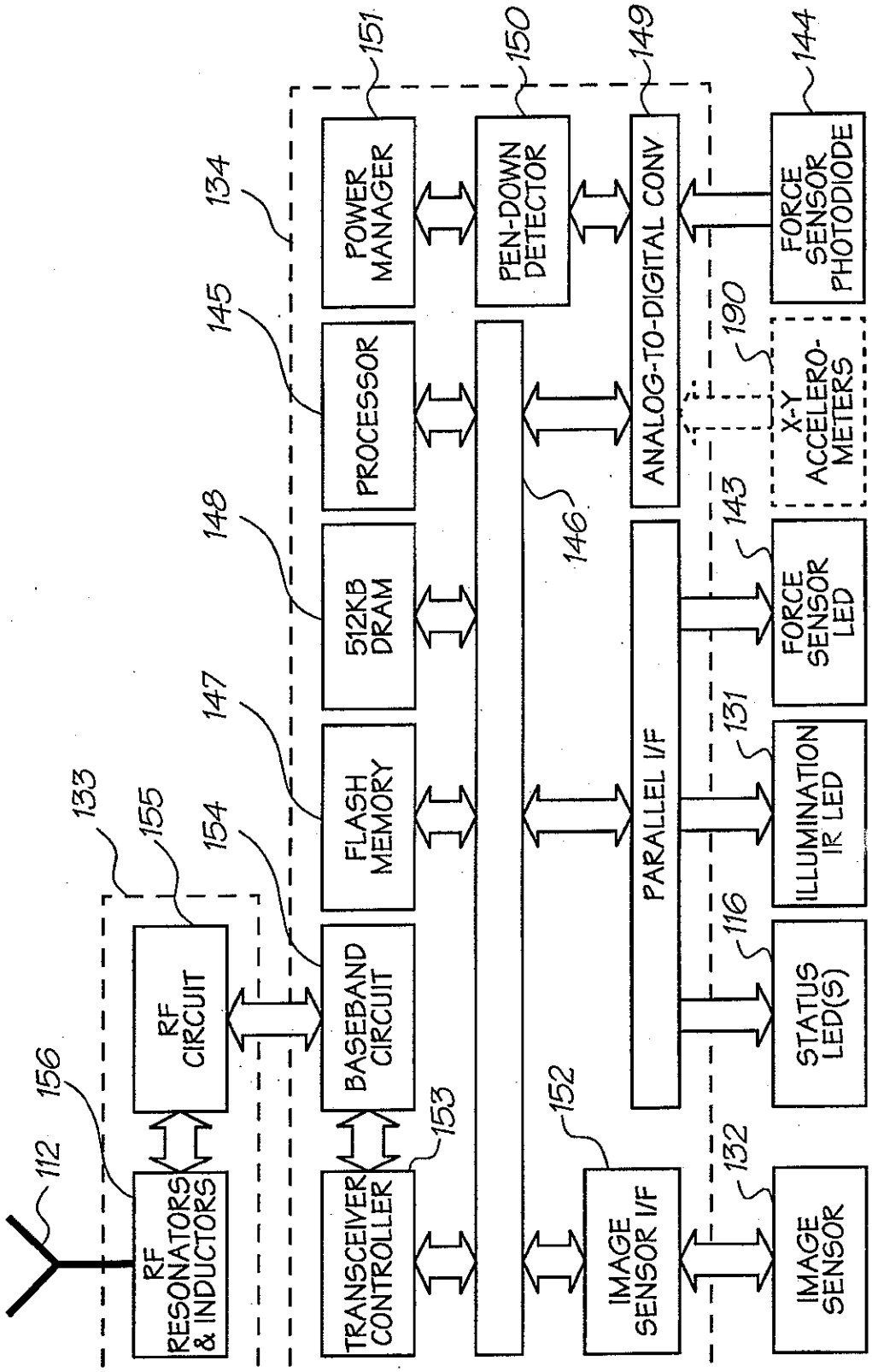

112
156
RF RESONATORS & INDUCTORS
133
155
RF CIRCUIT
154
BASEBAND CIRCUIT
153
TRANSCEIVER CONTROLLER
147
FLASH MEMORY
148
512KB DRAM
145
PROCESSOR
134
POWER MANAGER
151
150
PEN-DOWN DETECTOR
149
ANALOG-TO-DIGITAL CONV
144
FORCE SENSOR PHOTODIODE
190
X-Y ACCELERO-METERS
146
PARALLEL I/F
143
FORCE SENSOR LED
131
ILLUMINATION IR LED
116
STATUS LED(S)
152
IMAGE SENSOR I/F
132
IMAGE SENSOR

FIG. 10

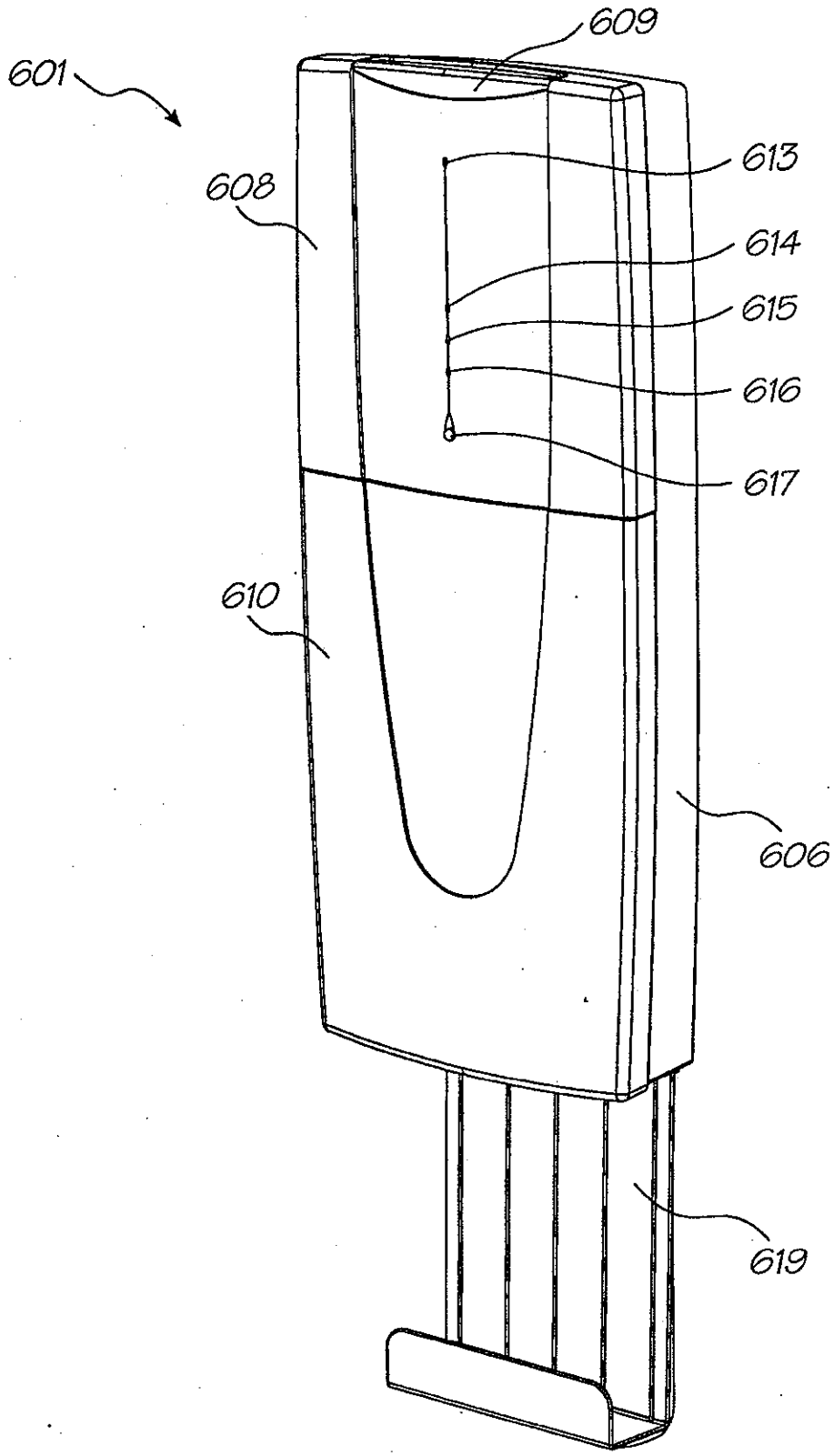


FIG. 11

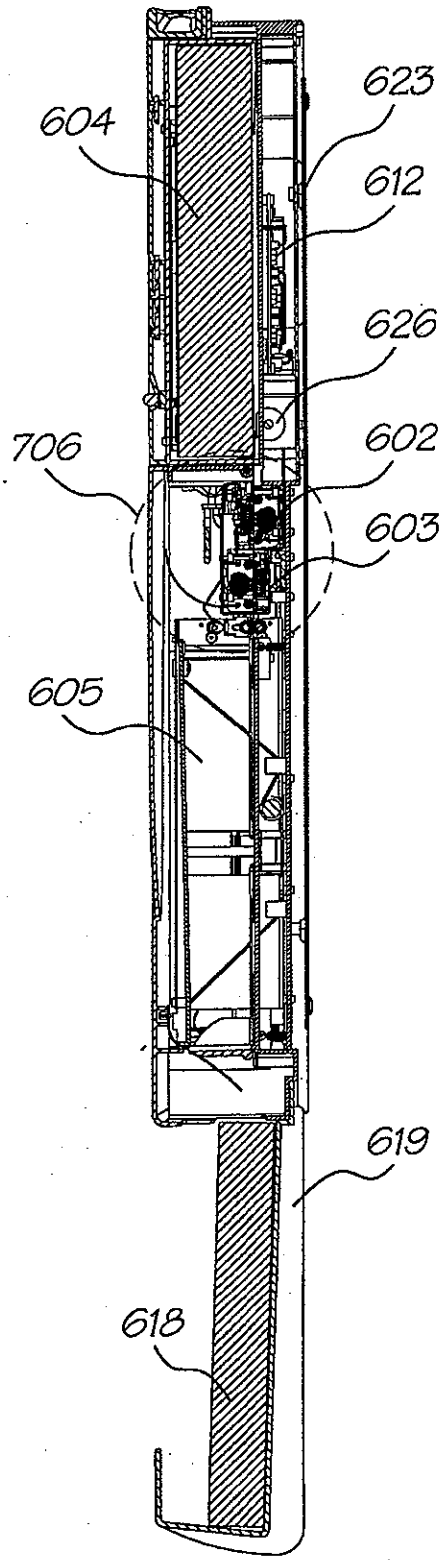


FIG. 12

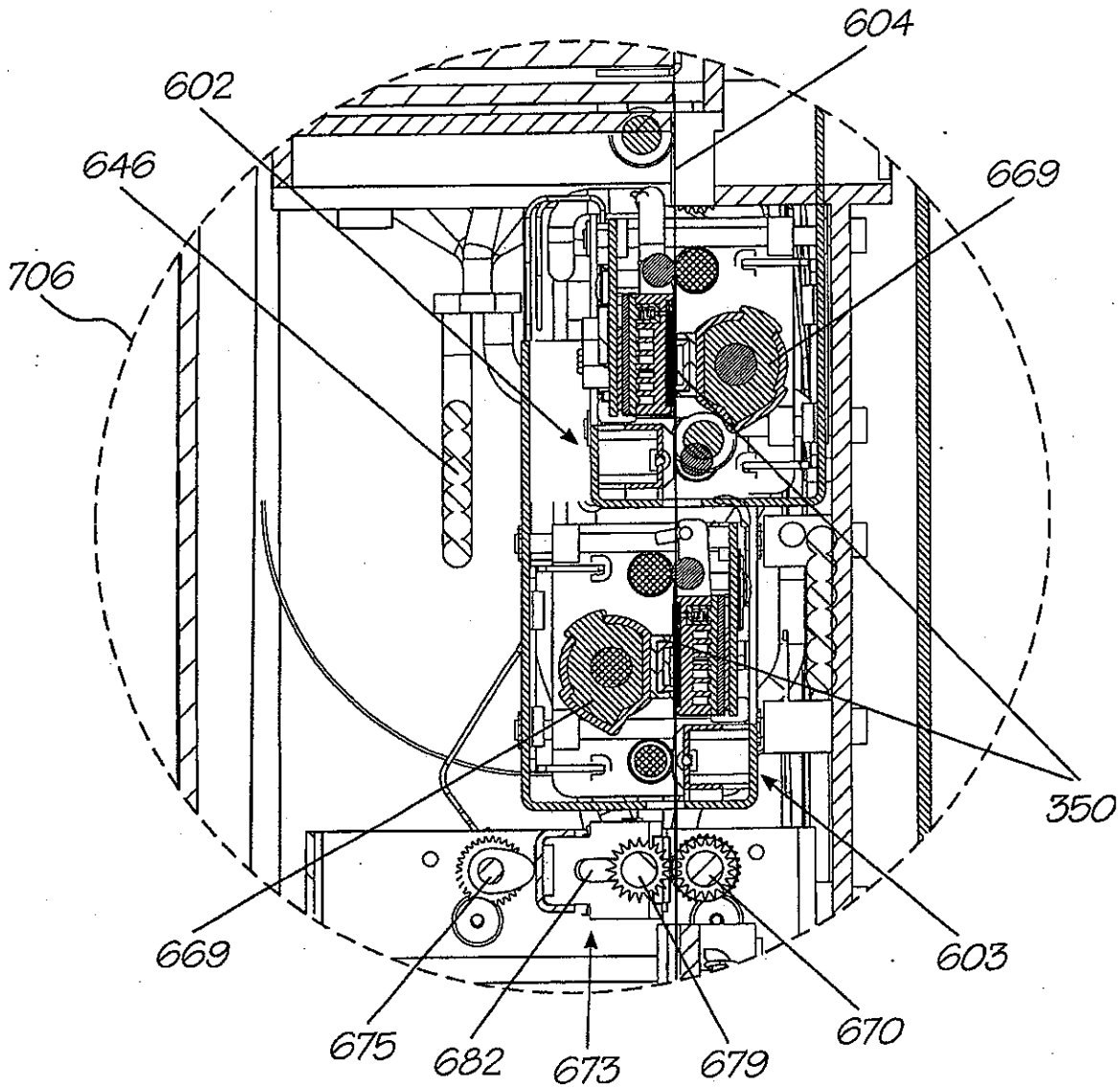


FIG. 12a

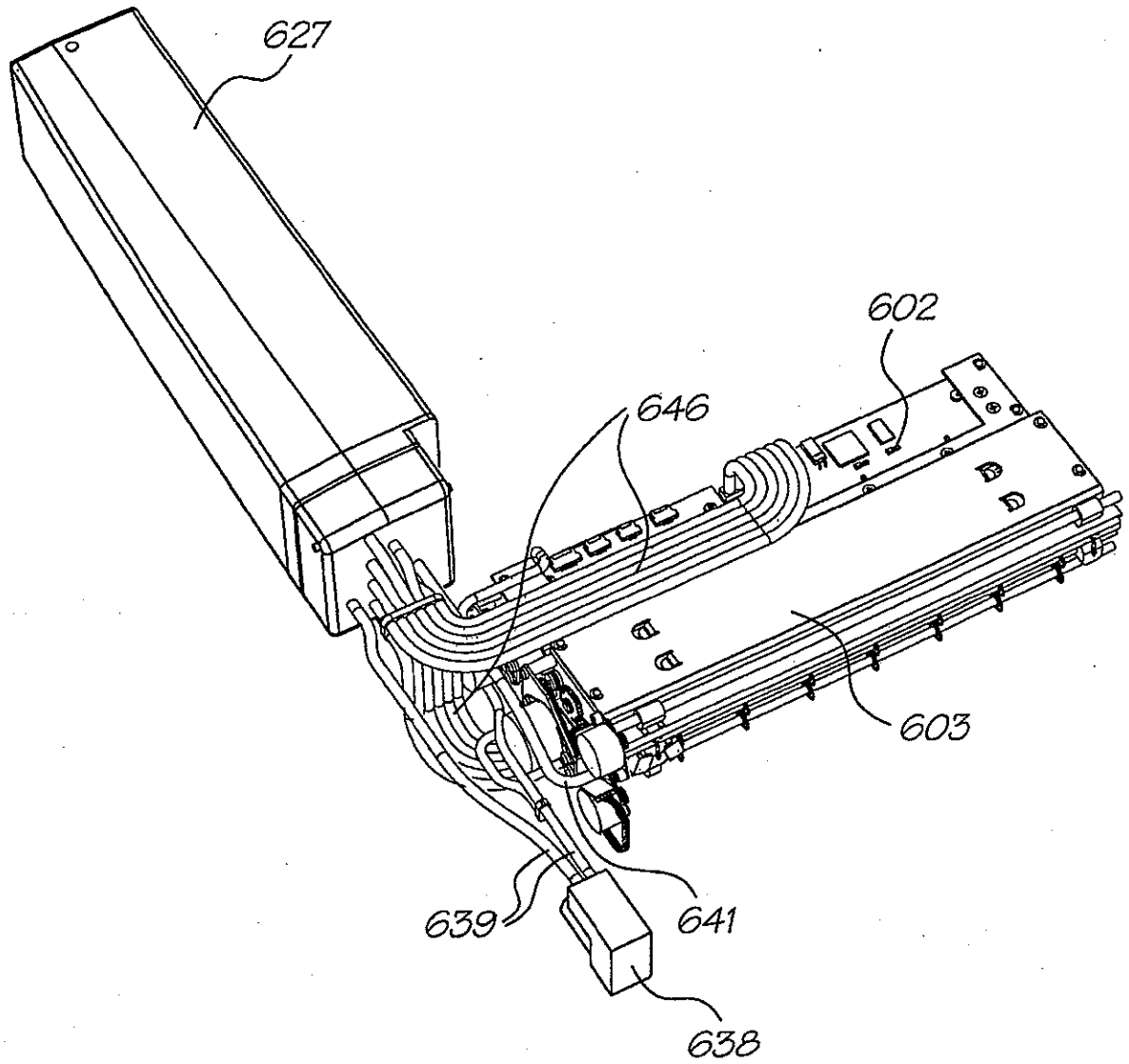


FIG. 13

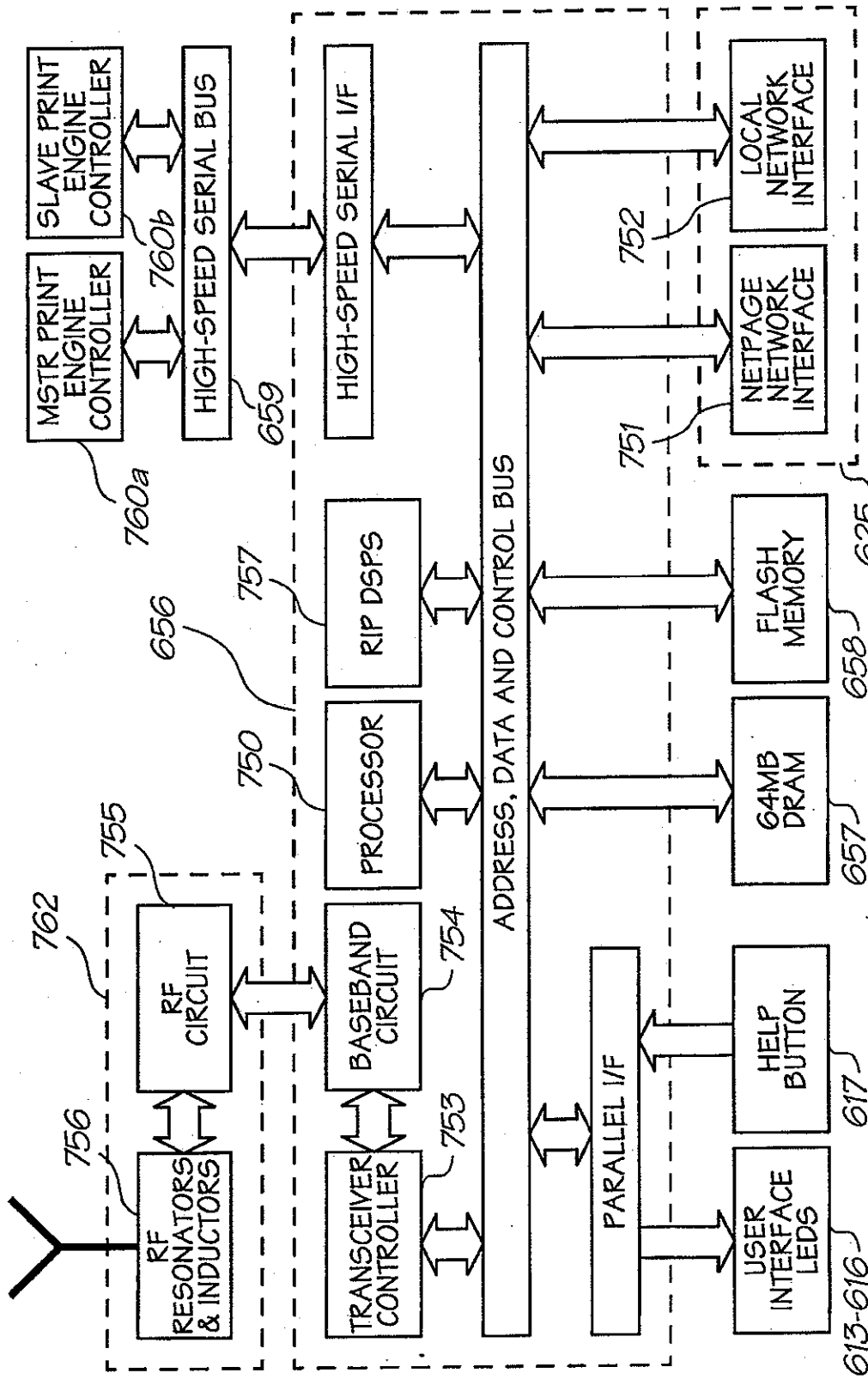

SLAVE PRINT ENGINE CONTROLLER
MSTR PRINT ENGINE CONTROLLER
HIGH-SPEED SERIAL BUS
HIGH-SPEED SERIAL I/F
LOCAL NETWORK INTERFACE
NETPAGE NETWORK INTERFACE
RIP DSPS
PROCESSOR
FLASH MEMORY
64MB DRAM
ADDRESS, DATA AND CONTROL BUS
RF CIRCUIT
BASEBAND CIRCUIT
RF RESONATORS & INDUCTORS
TRANSCEIVER CONTROLLER
PARALLEL I/F
HELP BUTTON
USER INTERFACE LEDS
760b
760a
659
752
751
757
656
750
625
658
657
755
754
762
756
753
617
613-616

FIG. 14

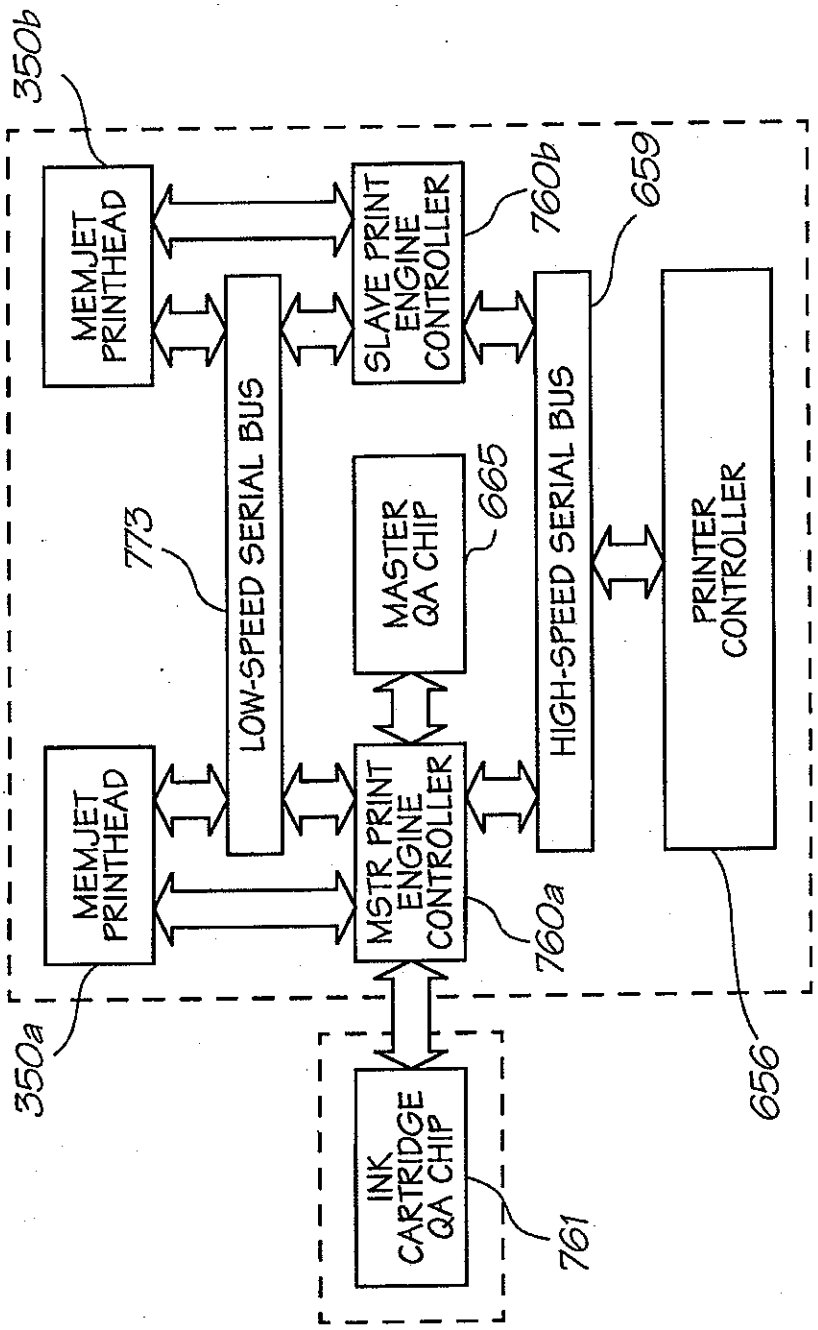

350b
MEMJET PRINTHEAD
SLAVE PRINT ENGINE CONTROLLER
760b
659
773
LOW-SPEED SERIAL BUS
MASTER QA CHIP
665
HIGH-SPEED SERIAL BUS
PRINTER CONTROLLER
MEMJET PRINTHEAD
MSTR PRINT ENGINE CONTROLLER
760a
350a
656
INK CARTRIDGE QA CHIP
761

FIG. 15

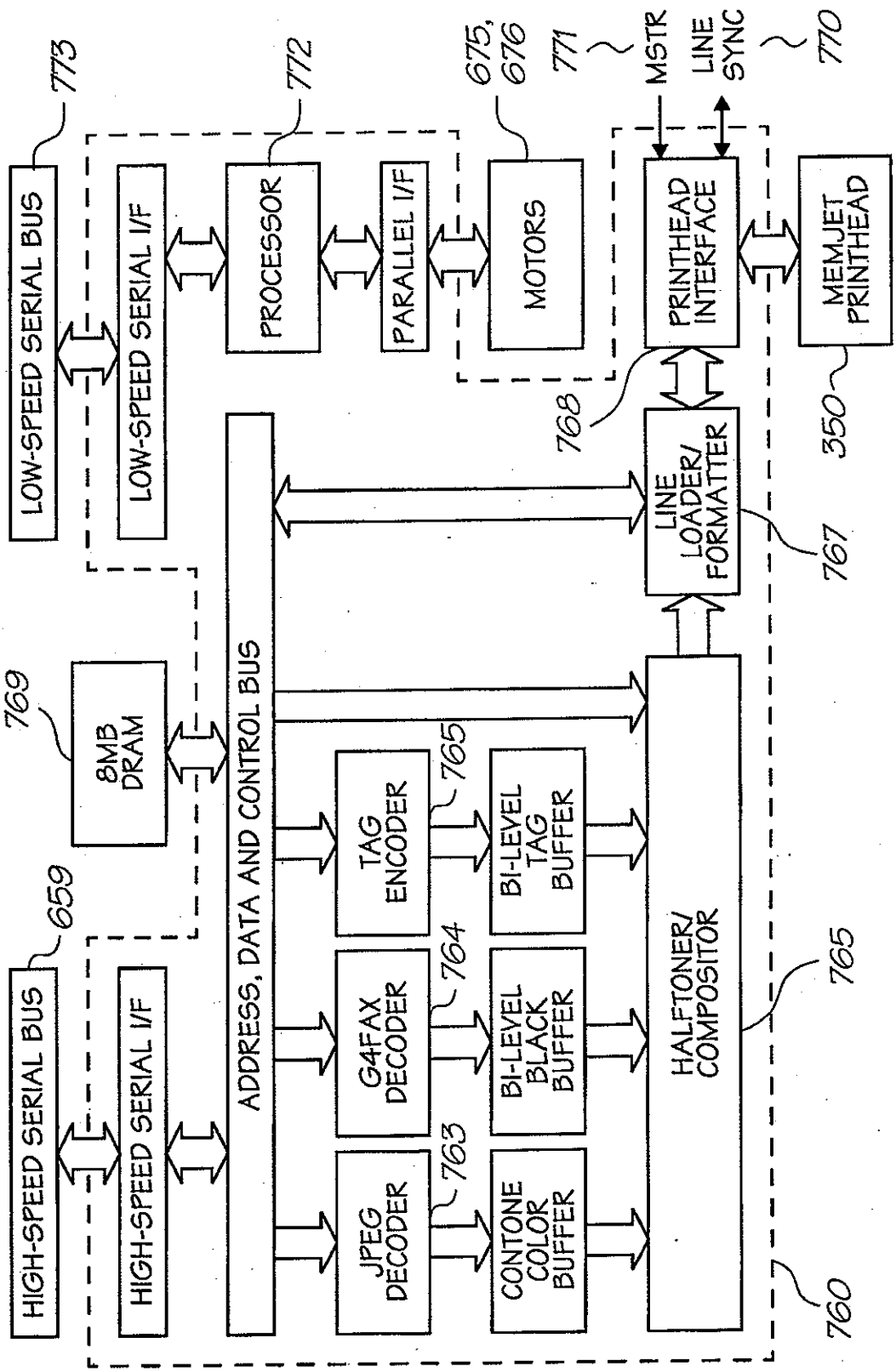

HIGH-SPEED SERIAL BUS
659
HIGH-SPEED SERIAL I/F
LOW-SPEED SERIAL BUS
773
LOW-SPEED SERIAL I/F
ADDRESS, DATA AND CONTROL BUS
8MB DRAM
769
JPEG DECODER
763
G4FAX DECODER
764
TAG ENCODER
765
CONTONE COLOR BUFFER
BI-LEVEL BLACK BUFFER
BI-LEVEL TAG BUFFER
HALFTONER/ COMPOSITOR
765
760
PROCESSOR
772
PARALLEL I/F
675, 676
MOTORS
771
MSTR
LINE SYNC
770
PRINTHEAD INTERFACE
768
LINE LOADER/ FORMATTER
767
MEMJET PRINTHEAD
350

FIG. 16

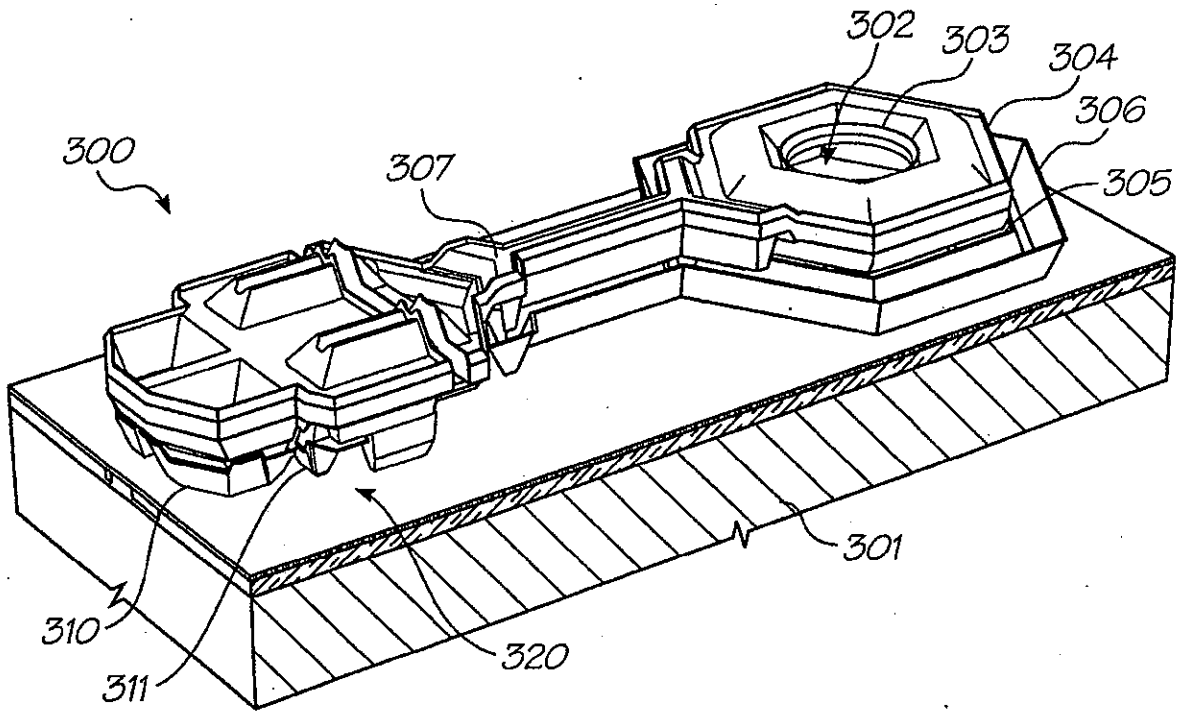


FIG. 17

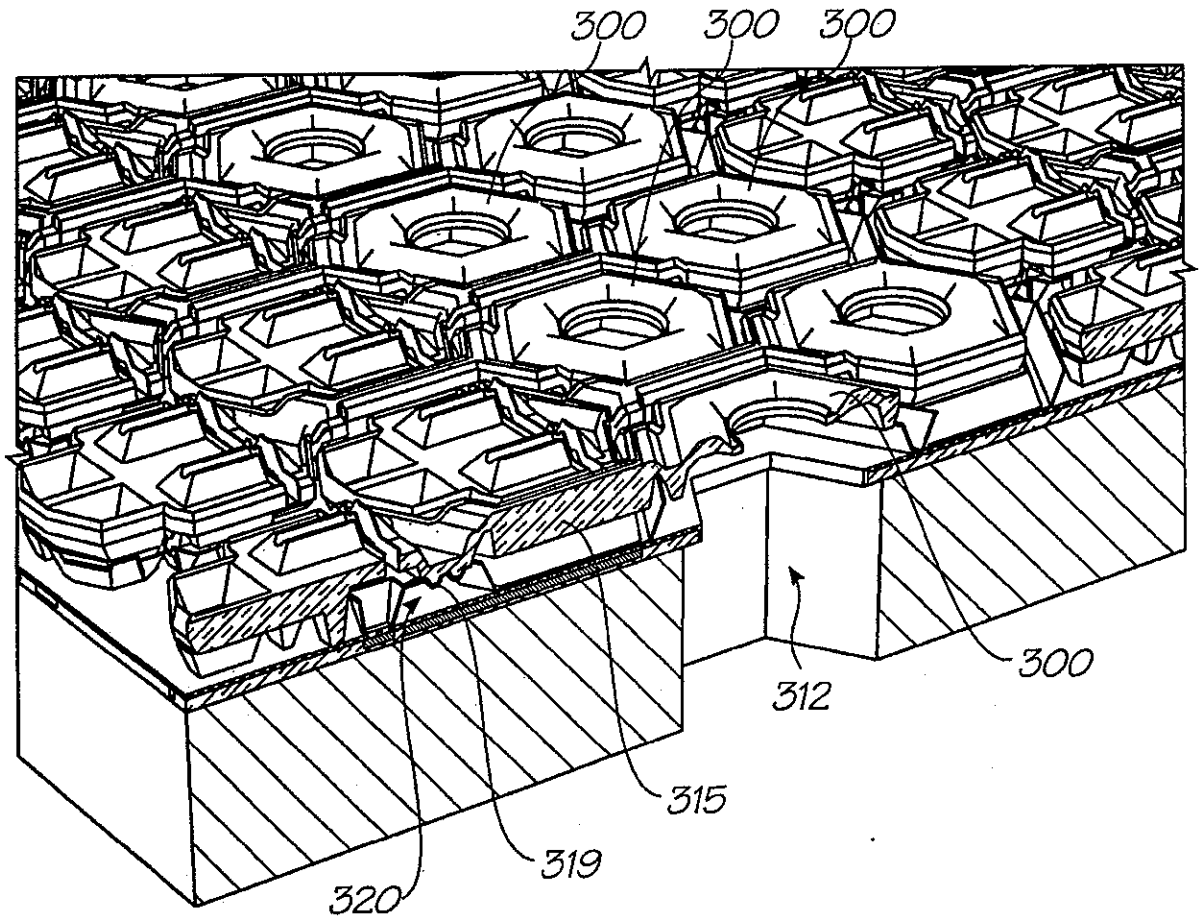


FIG. 18

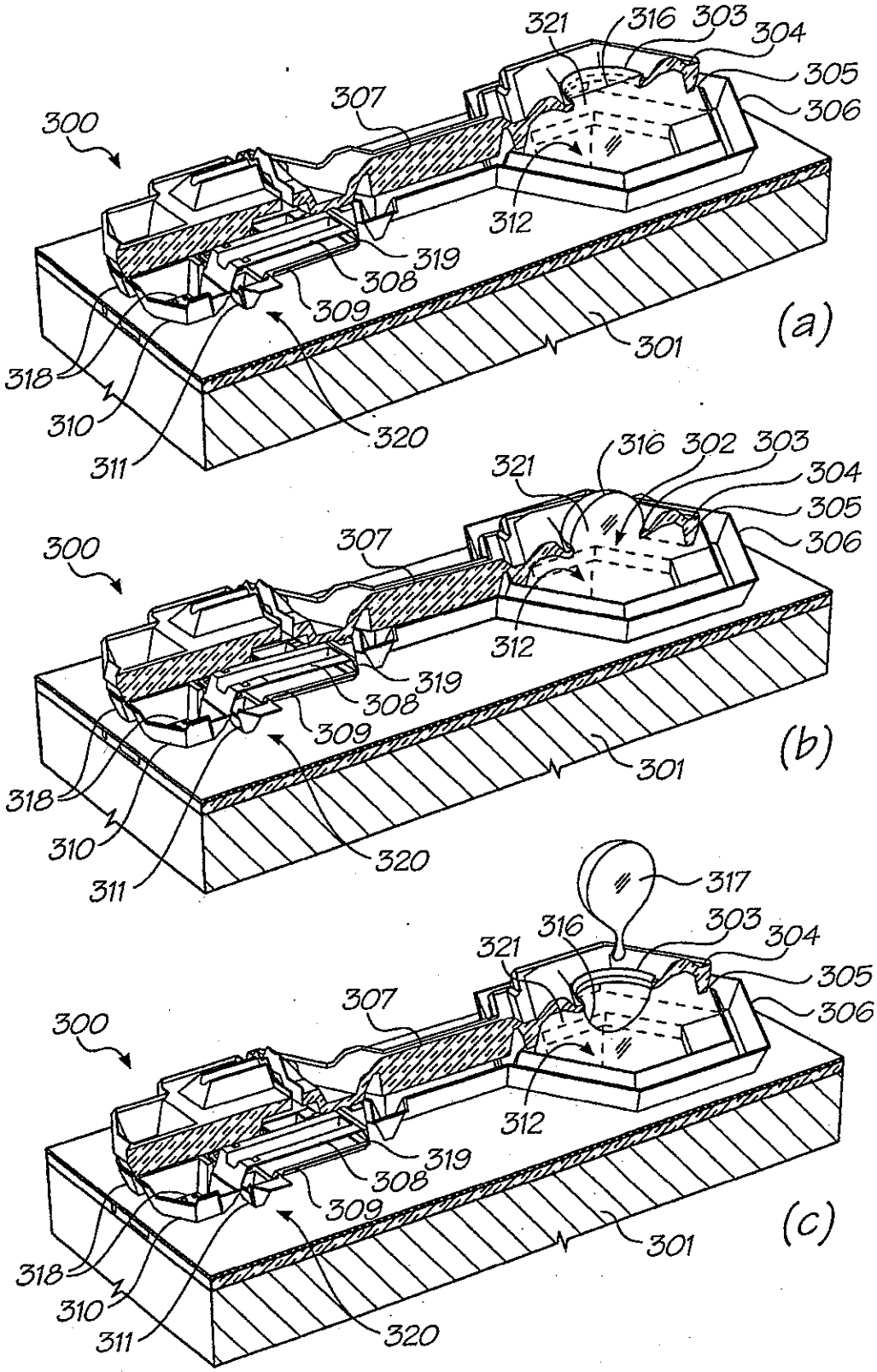

321
316
303
304
305
306
307
300
312
319
308
309
318
310
311
320
301
(a)
316
302
303
304
305
306
321
307
300
312
319
308
309
318
310
311
320
301
(b)
317
316
303
304
321
305
307
306
300
312
319
308
309
318
310
311
320
301
(c)

FIG. 19

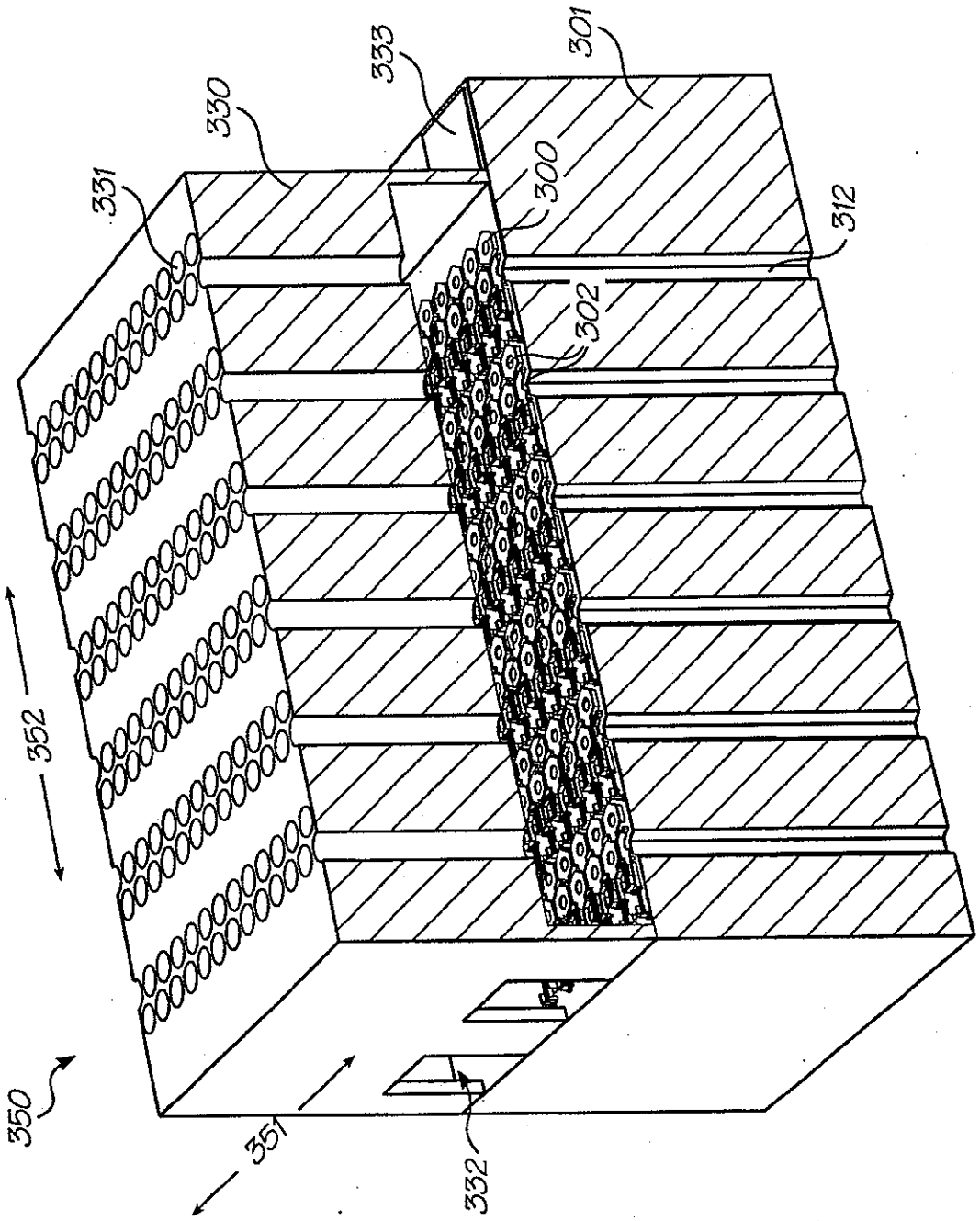


FIG. 20

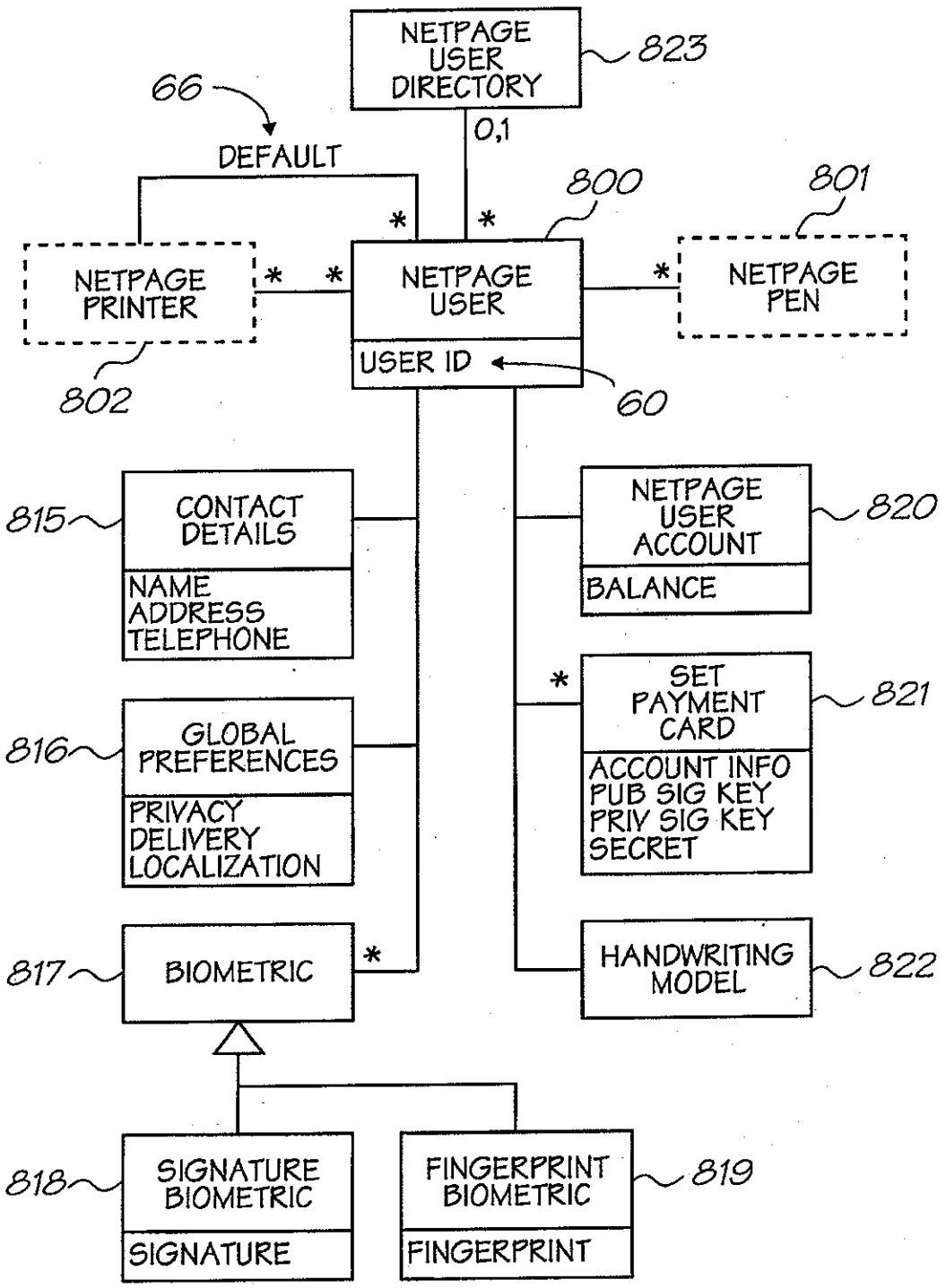

NETPAGE USER DIRECTORY
823
66
DEFAULT
0,1
800
801
NETPAGE PRINTER
NETPAGE USER
NETPAGE PEN
USER ID
60
802
815
CONTACT DETAILS
NAME
ADDRESS
TELEPHONE
NETPAGE USER ACCOUNT
820
BALANCE
816
GLOBAL PREFERENCES
PRIVACY
DELIVERY
LOCALIZATION
SET PAYMENT CARD
821
ACCOUNT INFO
PUB SIG KEY
PRIV SIG KEY
SECRET
817
BIOMETRIC
HANDWRITING MODEL
822
818
SIGNATURE BIOMETRIC
SIGNATURE
FINGERPRINT BIOMETRIC
819
FINGERPRINT

FIG. 21

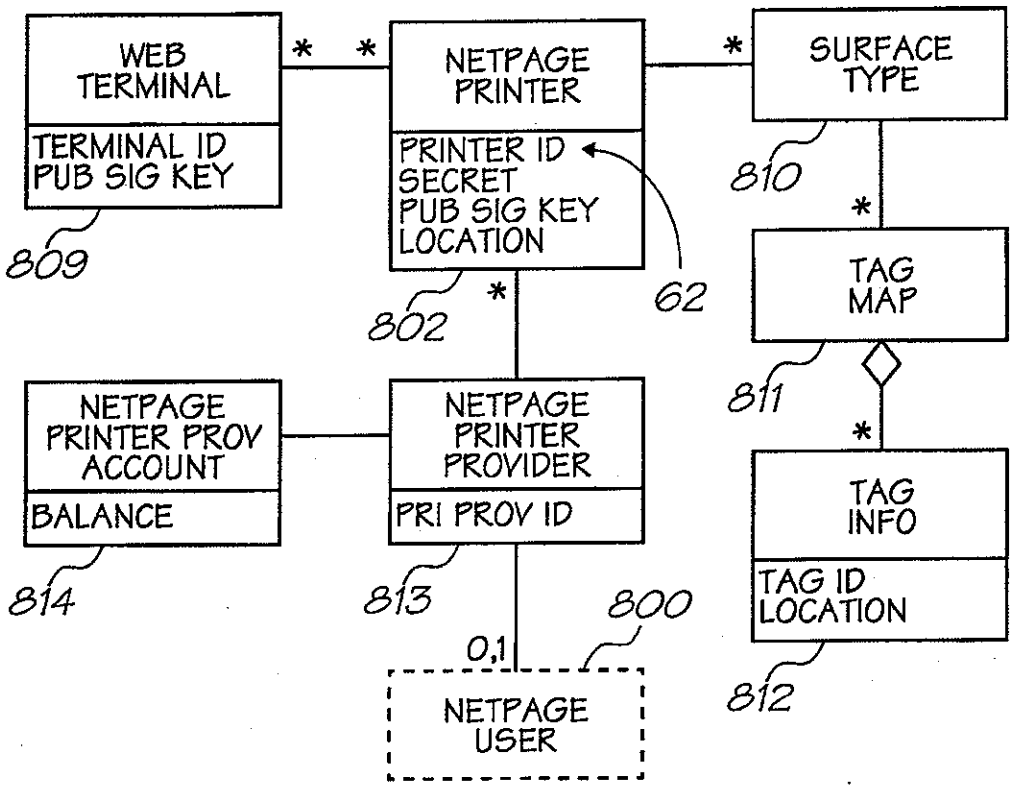

WEB TERMINAL
TERMINAL ID
PUB SIG KEY
809
NETPAGE PRINTER
PRINTER ID
SECRET
PUB SIG KEY
LOCATION
802
62
SURFACE TYPE
810
TAG MAP
811
TAG INFO
TAG ID
LOCATION
812
NETPAGE PRINTER PROV ACCOUNT
BALANCE
814
NETPAGE PRINTER PROVIDER
PRI PROV ID
813
800
0,1
NETPAGE USER

FIG. 22

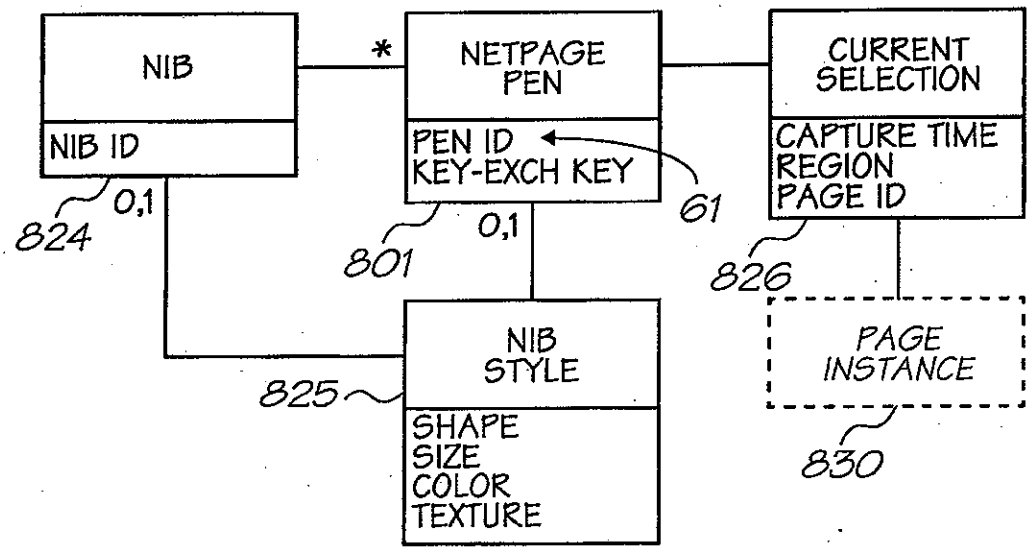

NIB
NIB ID
824
0,1
NETPAGE PEN
PEN ID
KEY-EXCH KEY
801
0,1
61
CURRENT SELECTION
CAPTURE TIME
REGION
PAGE ID
826
NIB STYLE
825
SHAPE
SIZE
COLOR
TEXTURE
PAGE INSTANCE
830

FIG. 23

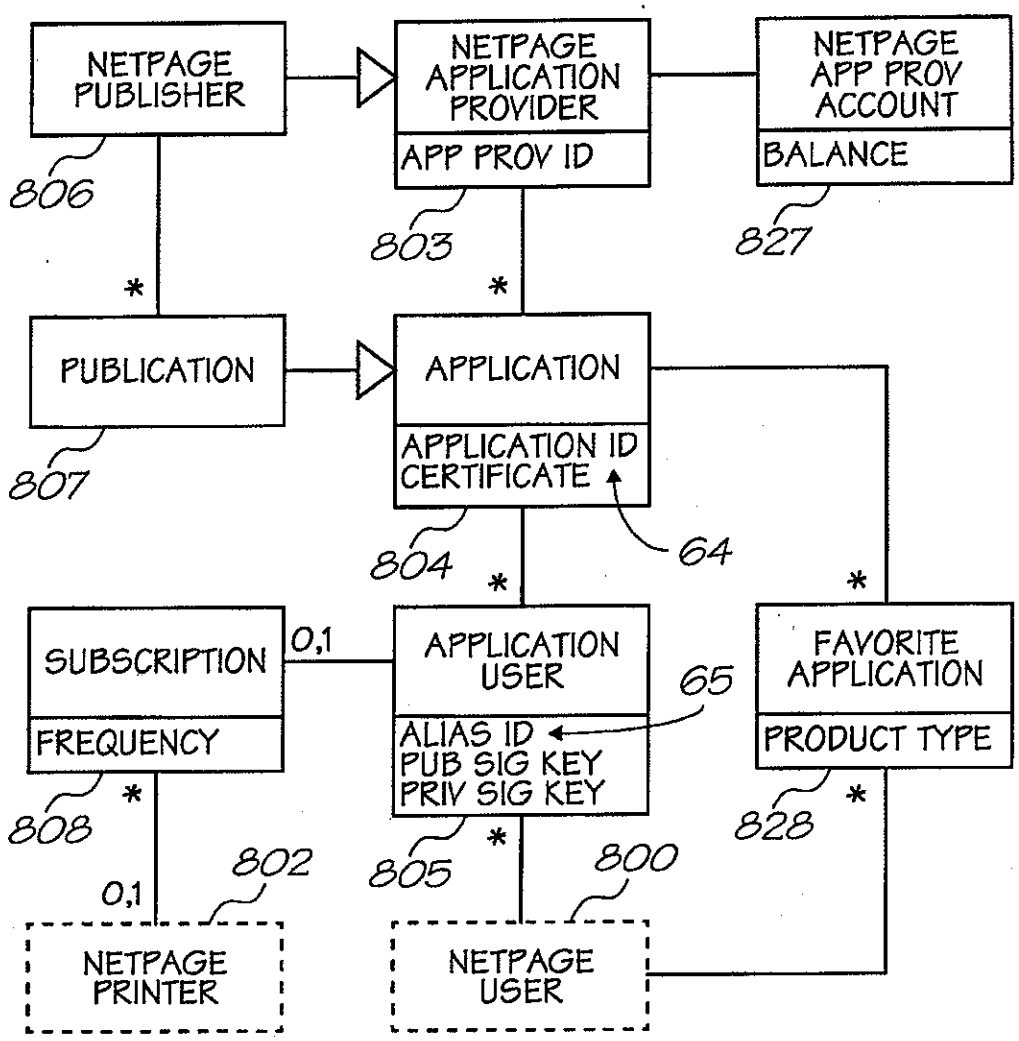

NETPAGE PUBLISHER
806
NETPAGE APPLICATION PROVIDER
APP PROV ID
803
NETPAGE APP PROV ACCOUNT
BALANCE
827
PUBLICATION
807
APPLICATION
APPLICATION ID
CERTIFICATE
804
64
SUBSCRIPTION
FREQUENCY
808
0,1
APPLICATION USER
ALIAS ID
PUB SIG KEY
PRIV SIG KEY
805
65
FAVORITE APPLICATION
PRODUCT TYPE
828
802
800
NETPAGE PRINTER
NETPAGE USER

FIG. 24

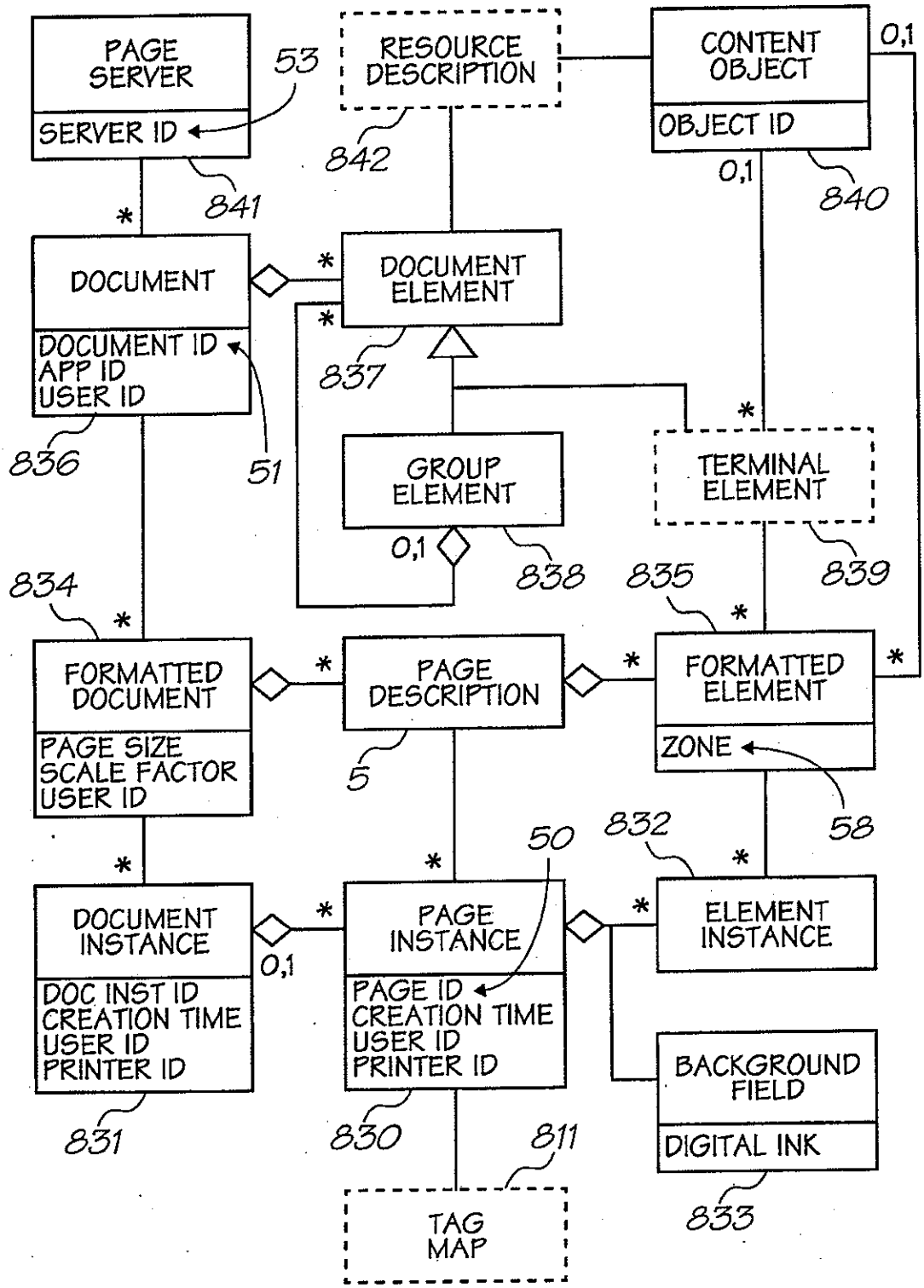

PAGE SERVER
SERVER ID
53
RESOURCE DESCRIPTION
CONTENT OBJECT
OBJECT ID
0,1
842
841
840
DOCUMENT
DOCUMENT ID
APP ID
USER ID
DOCUMENT ELEMENT
837
836
51
GROUP ELEMENT
TERMINAL ELEMENT
838
839
834
835
FORMATTED DOCUMENT
PAGE SIZE
SCALE FACTOR
USER ID
PAGE DESCRIPTION
FORMATTED ELEMENT
ZONE
5
58
832
50
DOCUMENT INSTANCE
DOC INST ID
CREATION TIME
USER ID
PRINTER ID
PAGE INSTANCE
PAGE ID
CREATION TIME
USER ID
PRINTER ID
ELEMENT INSTANCE
BACKGROUND FIELD
DIGITAL INK
831
830
811
833
TAG MAP

FIG. 25

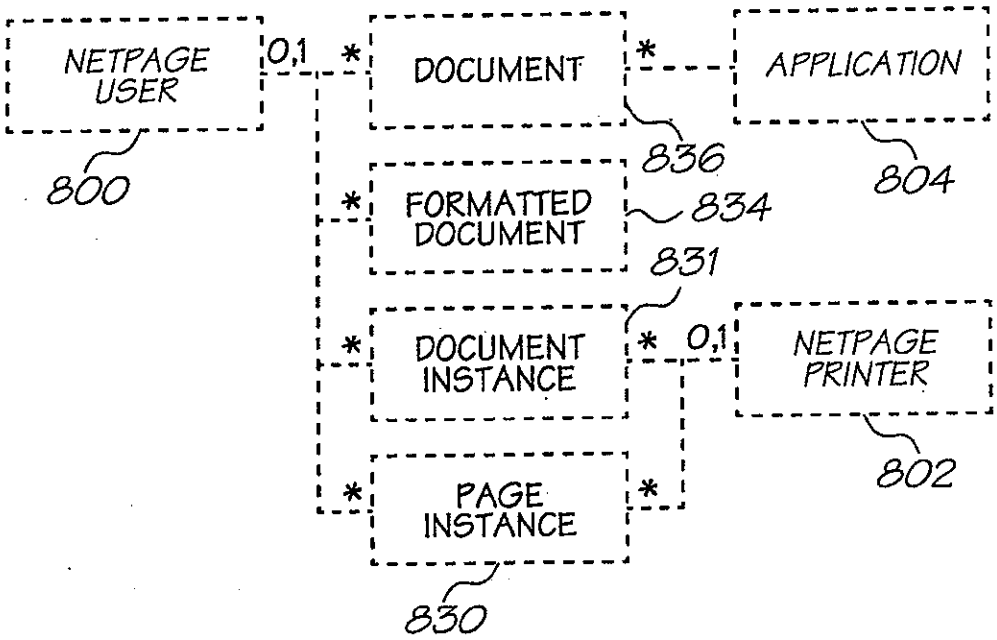

NETPAGE USER
0,1
*
DOCUMENT
*
APPLICATION
800
836
804
*
FORMATTED DOCUMENT
834
831
*
DOCUMENT INSTANCE
*
0,1
NETPAGE PRINTER
802
*
PAGE INSTANCE
*
830

FIG. 26

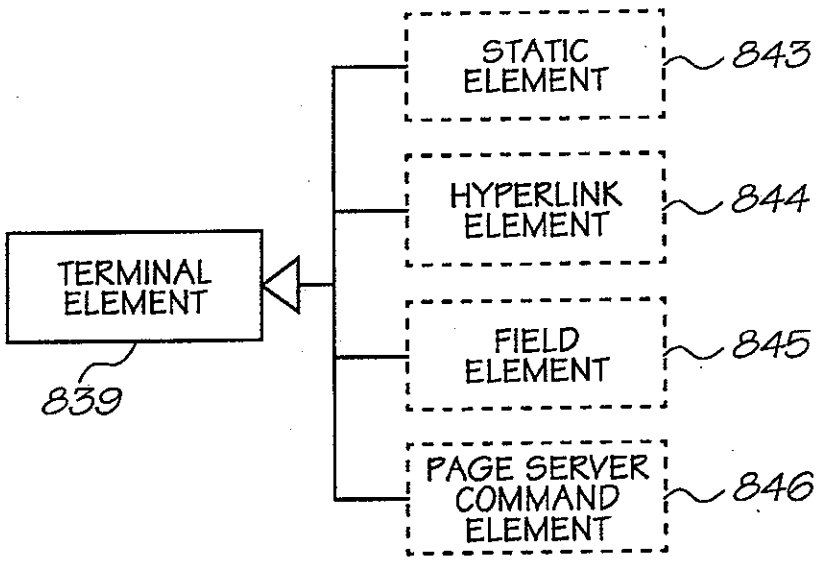

STATIC ELEMENT
843
HYPERLINK ELEMENT
844
TERMINAL ELEMENT
FIELD ELEMENT
845
839
PAGE SERVER COMMAND ELEMENT
846

FIG. 27

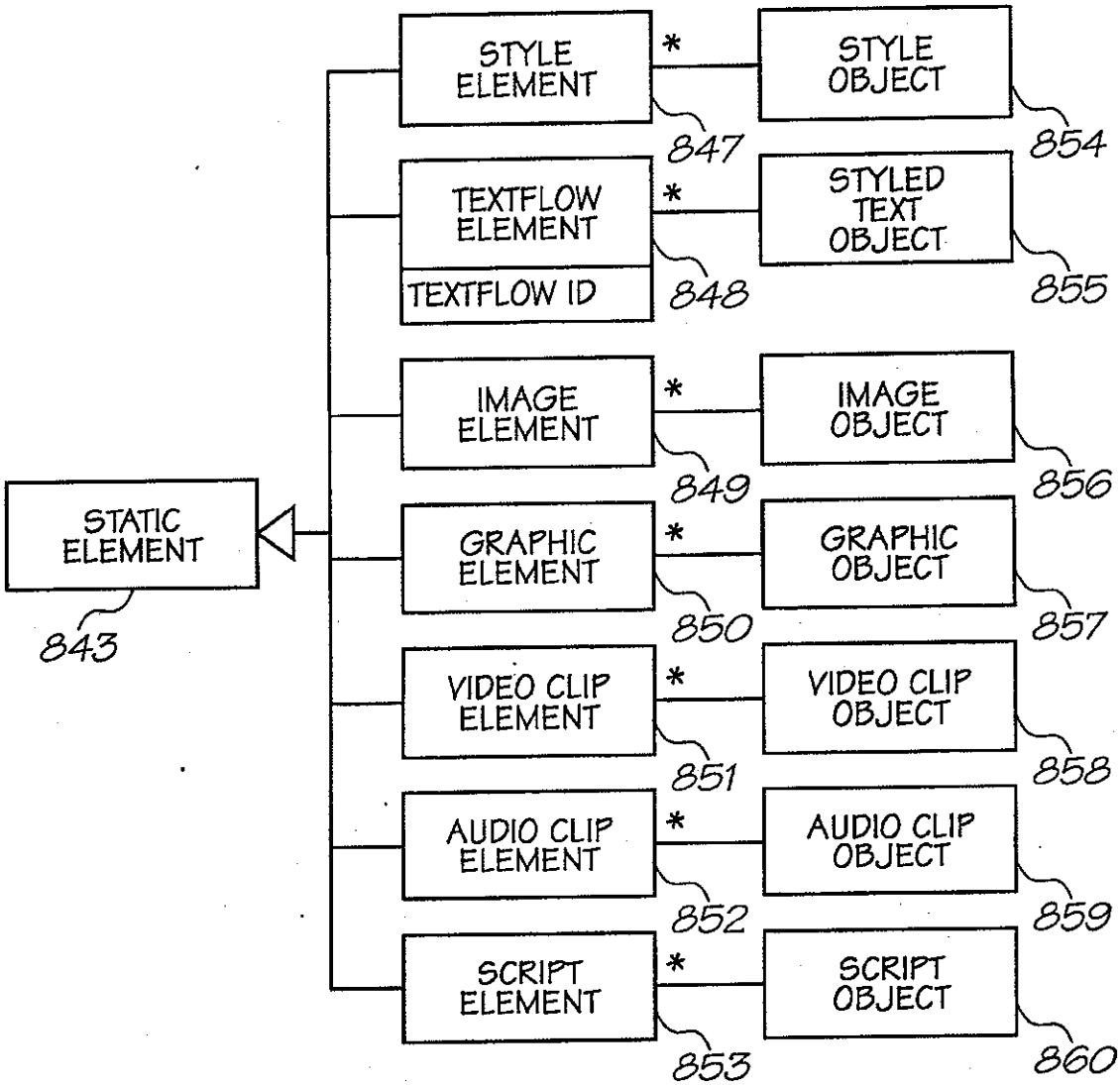

STATIC ELEMENT
843
STYLE ELEMENT
847
STYLE OBJECT
854
TEXTFLOW ELEMENT
TEXTFLOW ID
848
STYLED TEXT OBJECT
855
IMAGE ELEMENT
849
IMAGE OBJECT
856
GRAPHIC ELEMENT
850
GRAPHIC OBJECT
857
VIDEO CLIP ELEMENT
851
VIDEO CLIP OBJECT
858
AUDIO CLIP ELEMENT
852
AUDIO CLIP OBJECT
859
SCRIPT ELEMENT
853
SCRIPT OBJECT
860
*

FIG. 28

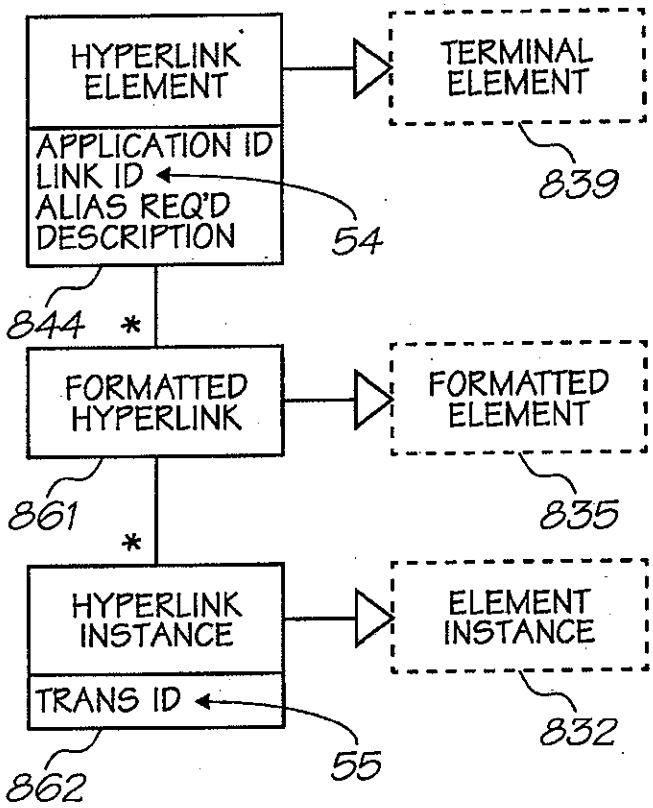

HYPERLINK ELEMENT
APPLICATION ID
LINK ID
ALIAS REQ'D
DESCRIPTION
54
844
*
TERMINAL ELEMENT
839
FORMATTED HYPERLINK
861
*
FORMATTED ELEMENT
835
HYPERLINK INSTANCE
TRANS ID
55
862
ELEMENT INSTANCE
832

FIG. 29

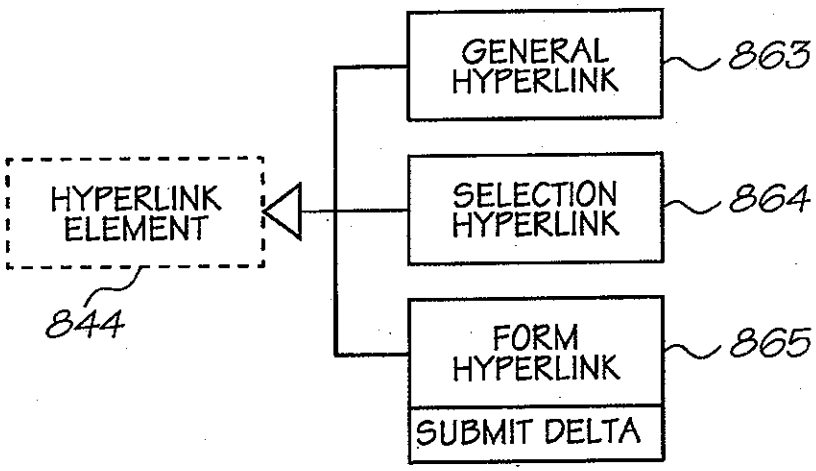

HYPERLINK ELEMENT
844
GENERAL HYPERLINK
863
SELECTION HYPERLINK
864
FORM HYPERLINK
SUBMIT DELTA
865

FIG. 30

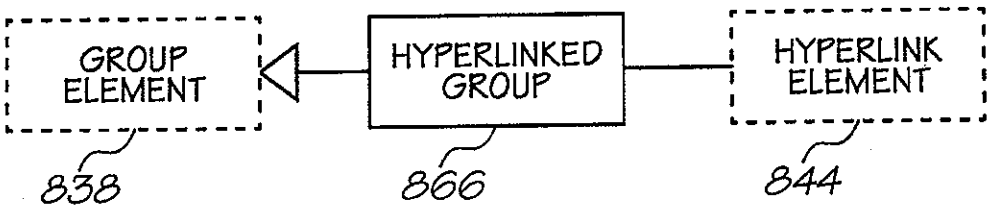

GROUP ELEMENT
HYPERLINKED GROUP
HYPERLINK ELEMENT
838
866
844

FIG. 31

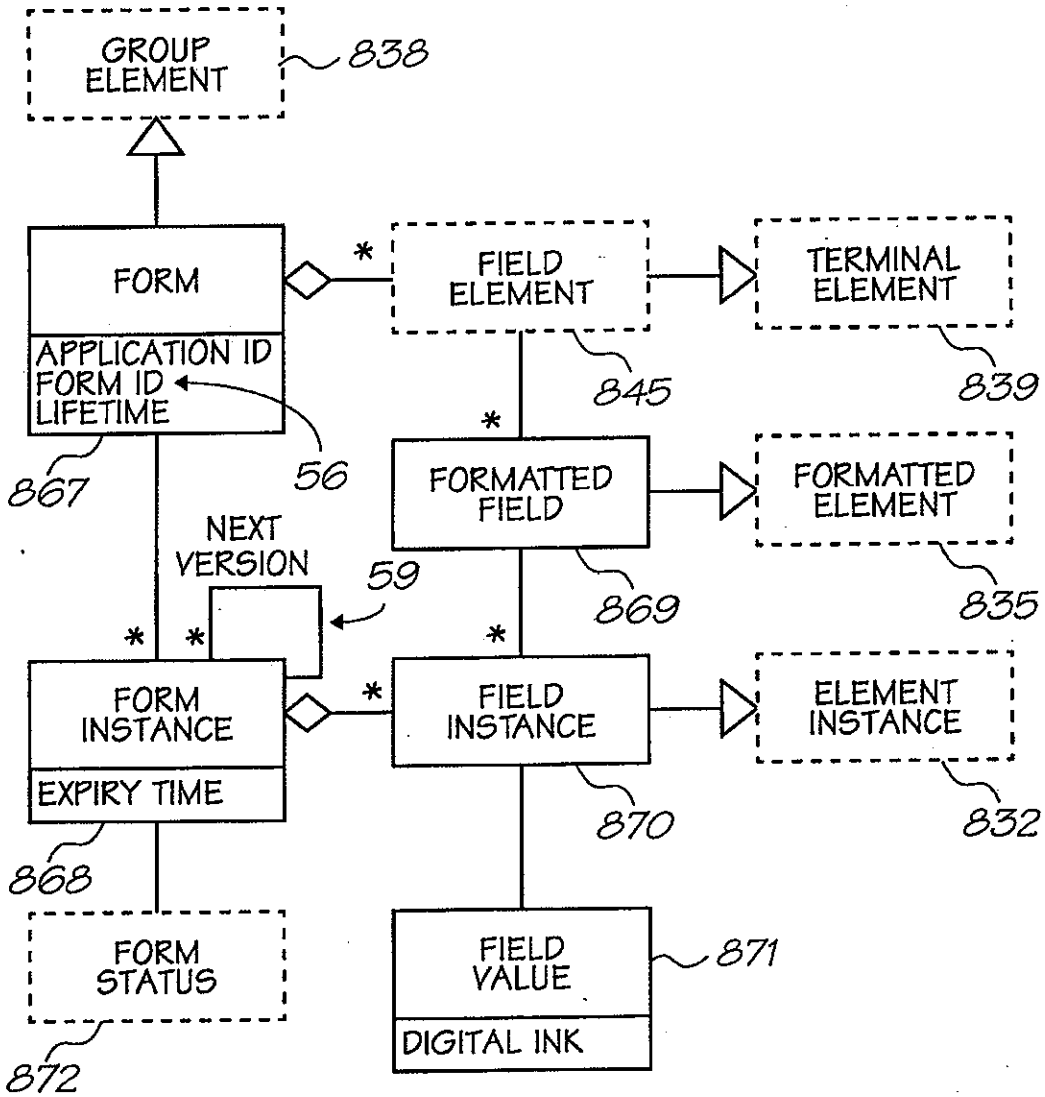

GROUP ELEMENT
838
FORM
APPLICATION ID
FORM ID
LIFETIME
867
56
FIELD ELEMENT
845
TERMINAL ELEMENT
839
FORMATTED FIELD
869
FORMATTED ELEMENT
835
NEXT VERSION
59
FORM INSTANCE
EXPIRY TIME
868
FIELD INSTANCE
870
ELEMENT INSTANCE
832
FORM STATUS
872
FIELD VALUE
DIGITAL INK
871

FIG. 32

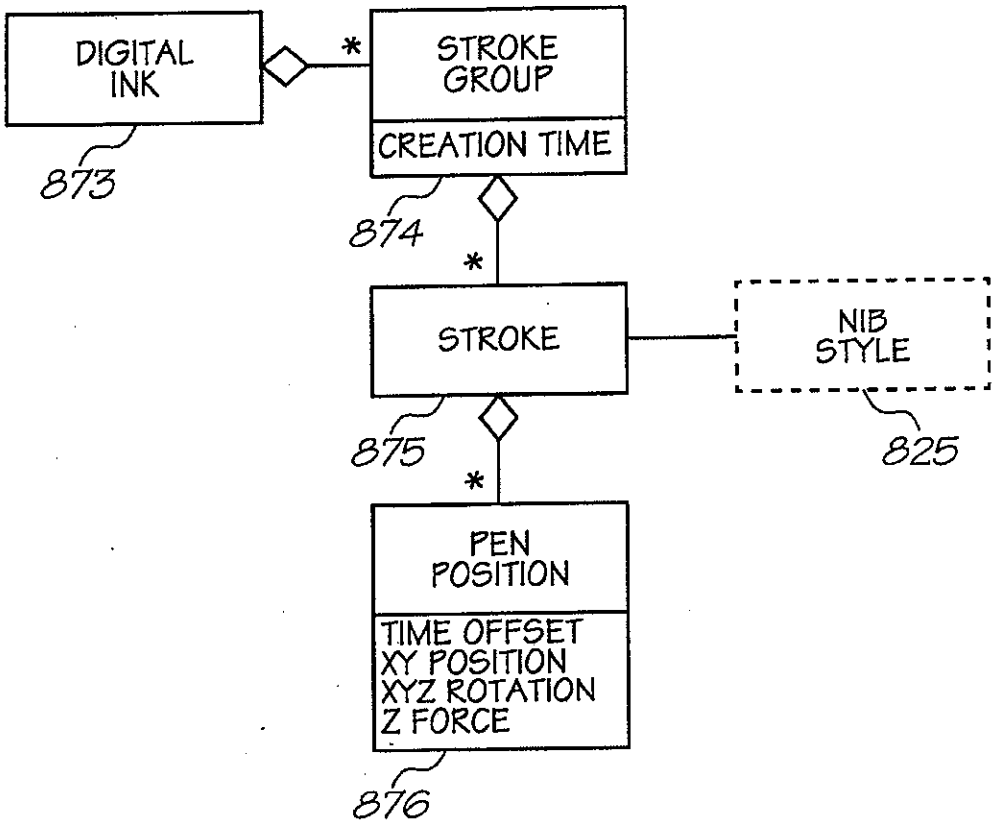

DIGITAL INK
*
STROKE GROUP
CREATION TIME
873
874
*
STROKE
NIB STYLE
875
825
*
PEN POSITION
TIME OFFSET
XY POSITION
XYZ ROTATION
Z FORCE
876

FIG. 33

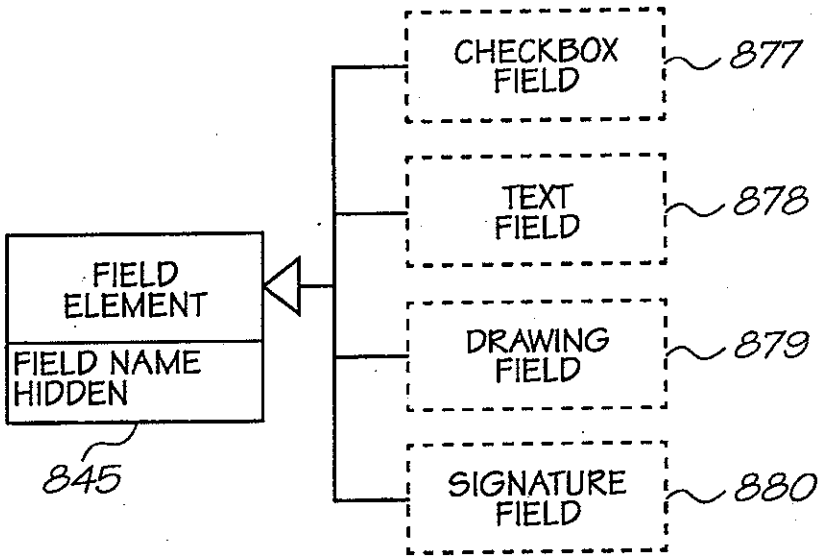

CHECKBOX FIELD
877
TEXT FIELD
878
FIELD ELEMENT
FIELD NAME
HIDDEN
DRAWING FIELD
879
SIGNATURE FIELD
880
845

FIG. 34

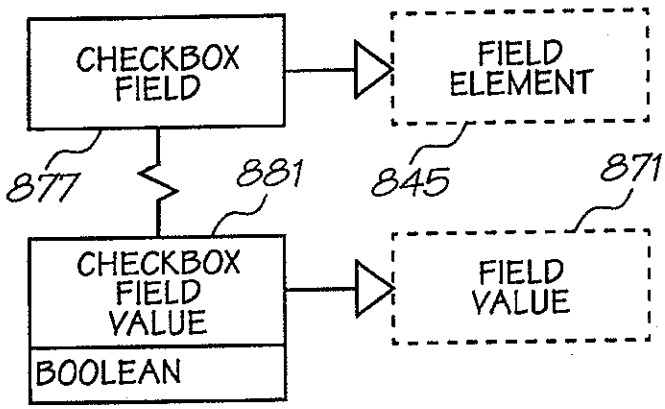


FIG. 35

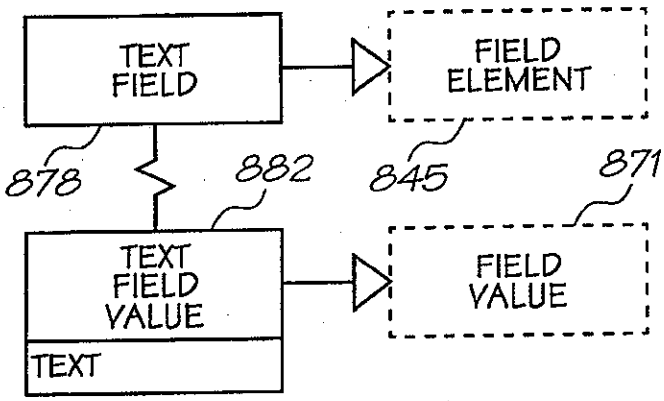


FIG. 36

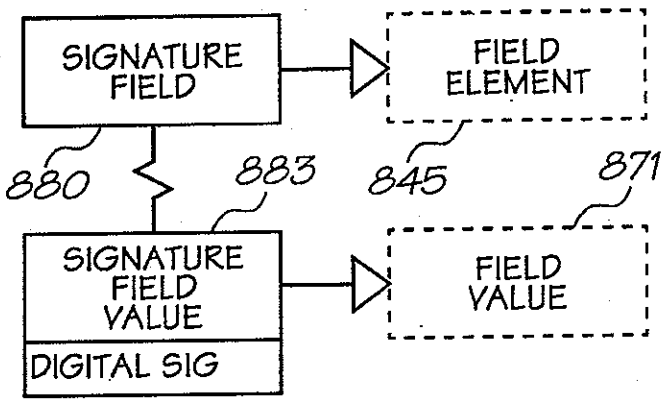


FIG. 37

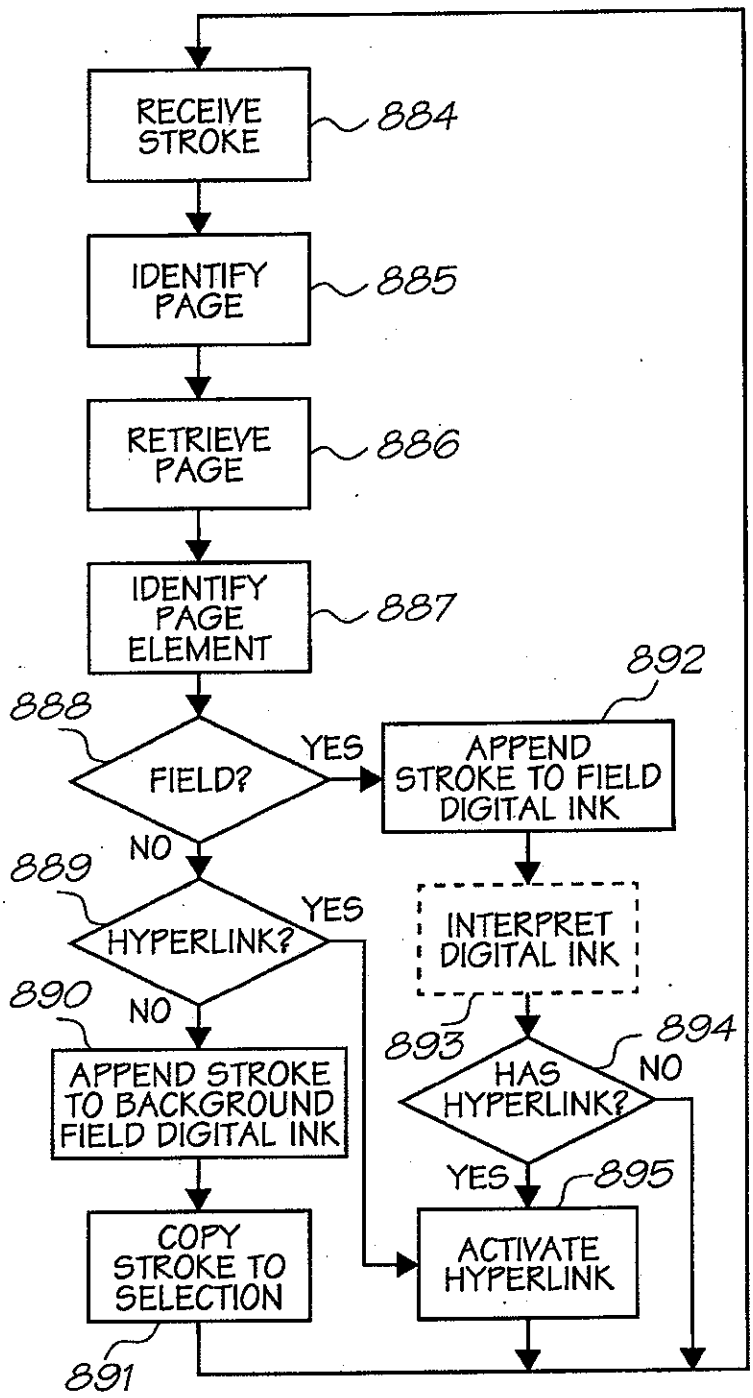

RECEIVE STROKE
884
IDENTIFY PAGE
885
RETRIEVE PAGE
886
IDENTIFY PAGE ELEMENT
887
888
FIELD?
YES
892
APPEND STROKE TO FIELD DIGITAL INK
NO
889
HYPERLINK?
YES
INTERPRET DIGITAL INK
890
NO
893
894
HAS HYPERLINK?
NO
APPEND STROKE TO BACKGROUND FIELD DIGITAL INK
YES
895
COPY STROKE TO SELECTION
ACTIVATE HYPERLINK
891

FIG. 38

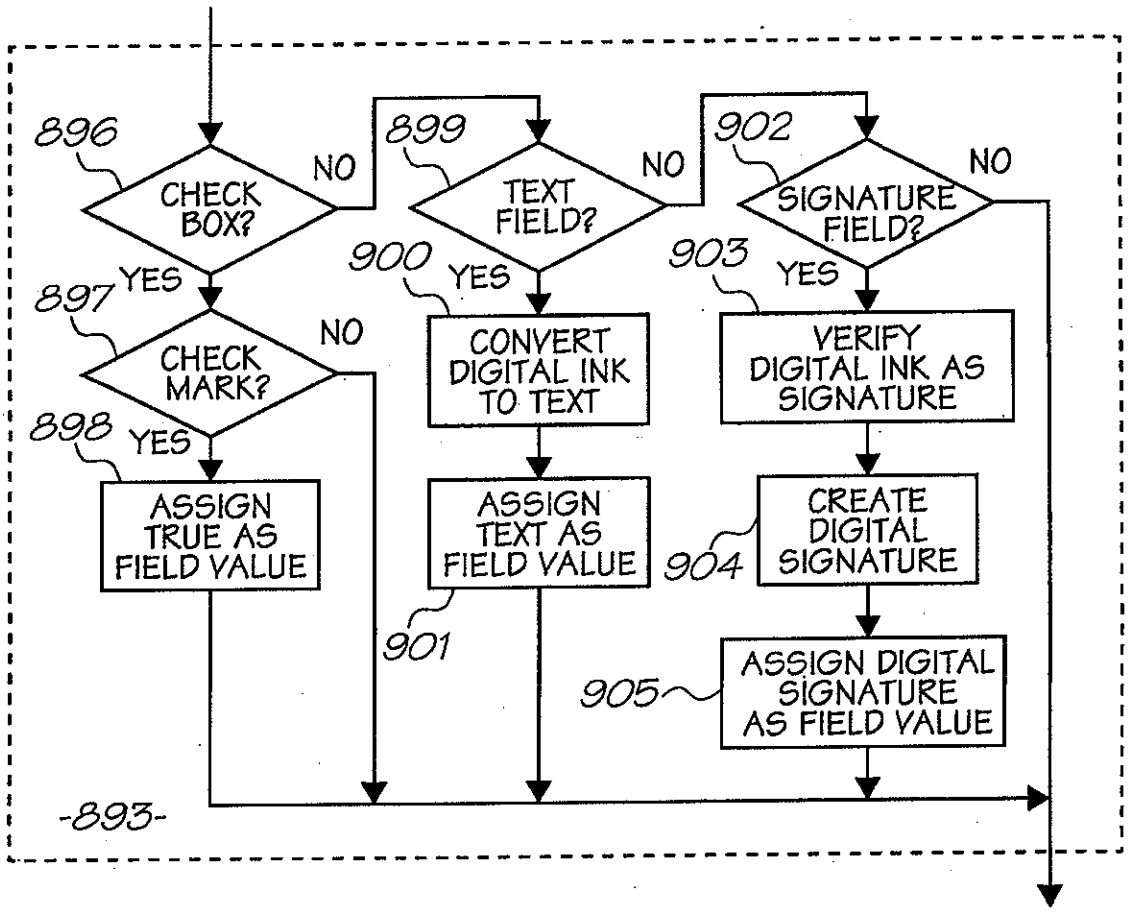

896
CHECK BOX?
NO
899
TEXT FIELD?
NO
902
SIGNATURE FIELD?
NO
897
YES
900
YES
903
YES
CHECK MARK?
NO
CONVERT DIGITAL INK TO TEXT
VERIFY DIGITAL INK AS SIGNATURE
898
YES
ASSIGN TRUE AS FIELD VALUE
ASSIGN TEXT AS FIELD VALUE
CREATE DIGITAL SIGNATURE
904
901
905
ASSIGN DIGITAL SIGNATURE AS FIELD VALUE
-893-

FIG. 38a

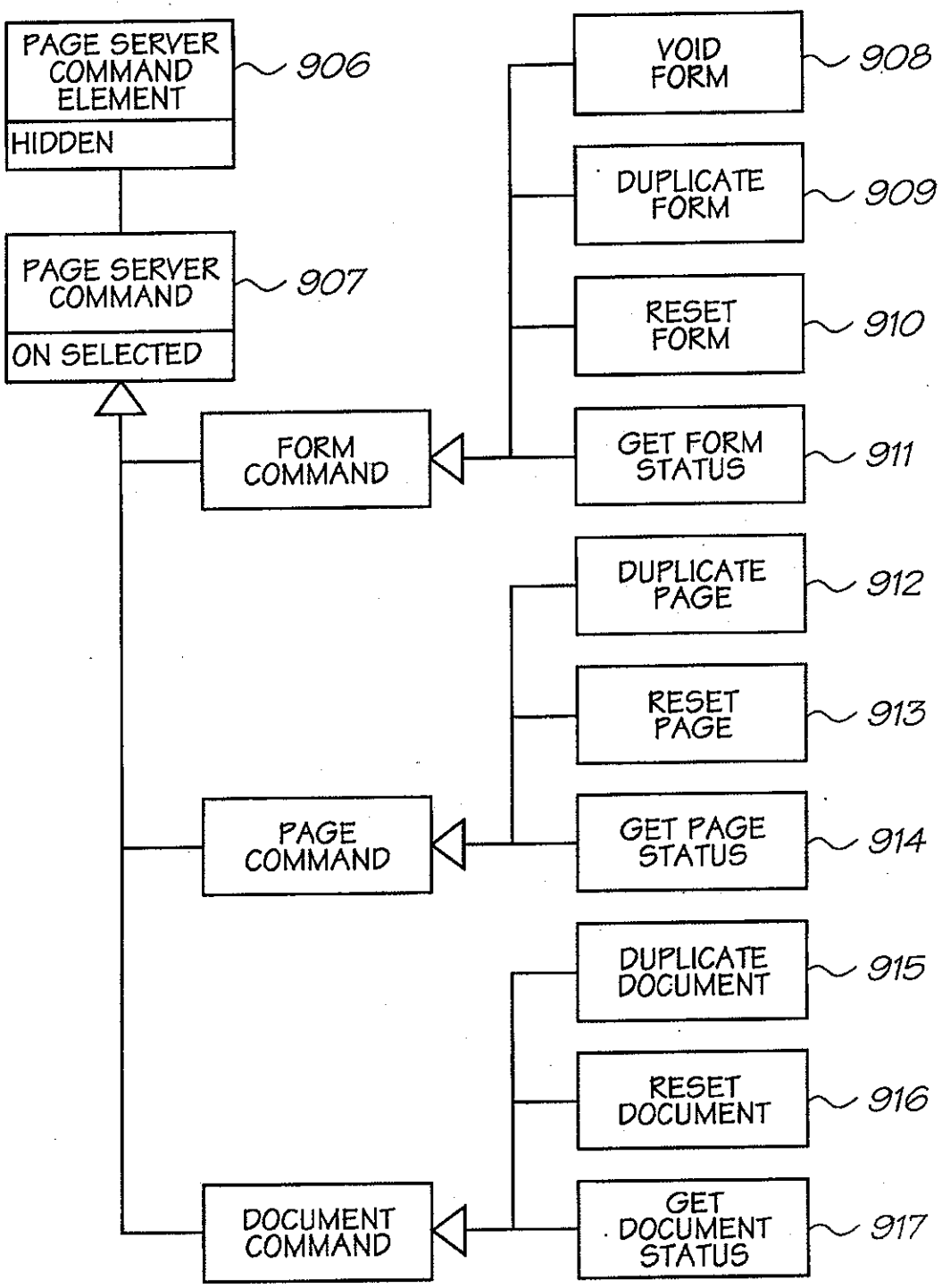

PAGE SERVER COMMAND ELEMENT
HIDDEN
906
PAGE SERVER COMMAND
ON SELECTED
907
FORM COMMAND
VOID FORM
908
DUPLICATE FORM
909
RESET FORM
910
GET FORM STATUS
911
PAGE COMMAND
DUPLICATE PAGE
912
RESET PAGE
913
GET PAGE STATUS
914
DOCUMENT COMMAND
DUPLICATE DOCUMENT
915
RESET DOCUMENT
916
GET DOCUMENT STATUS
917

FIG. 39

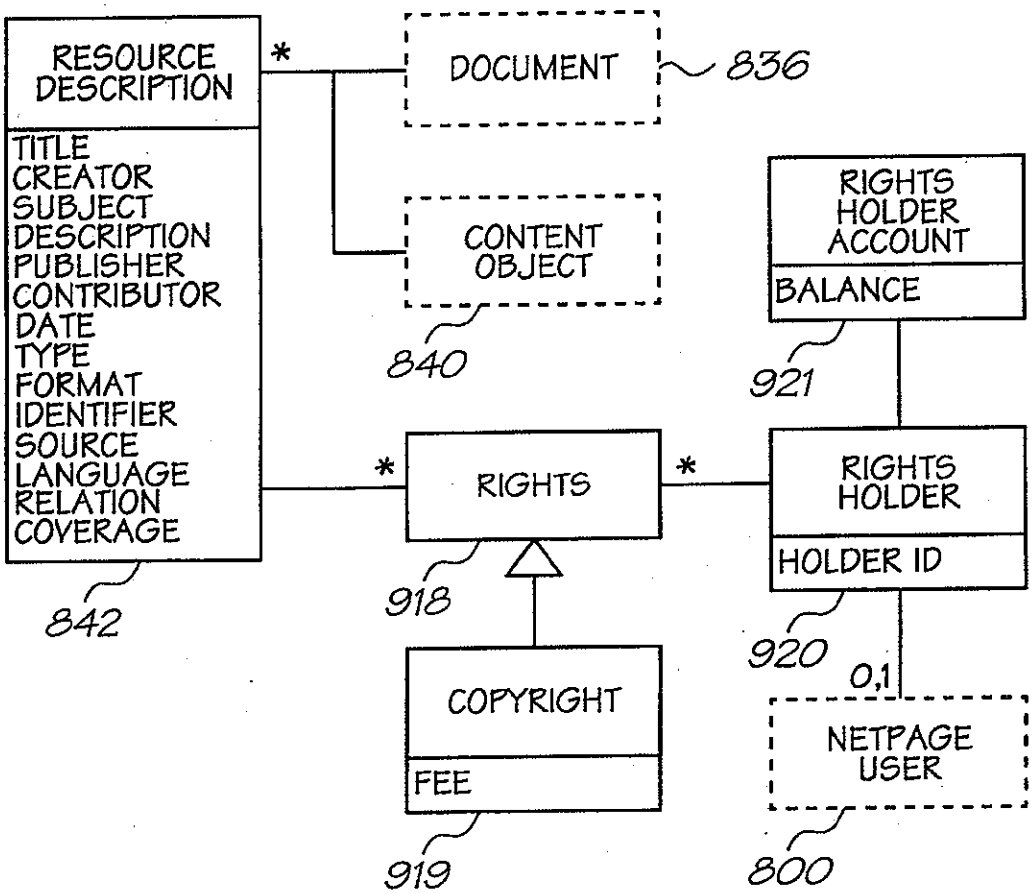

RESOURCE DESCRIPTION
TITLE
CREATOR
SUBJECT
DESCRIPTION
PUBLISHER
CONTRIBUTOR
DATE
TYPE
FORMAT
IDENTIFIER
SOURCE
LANGUAGE
RELATION
COVERAGE
842
*
DOCUMENT
836
CONTENT OBJECT
840
RIGHTS HOLDER ACCOUNT
BALANCE
921
*
RIGHTS
*
RIGHTS HOLDER
HOLDER ID
920
0,1
NETPAGE USER
800
918
COPYRIGHT
FEE
919

FIG. 40

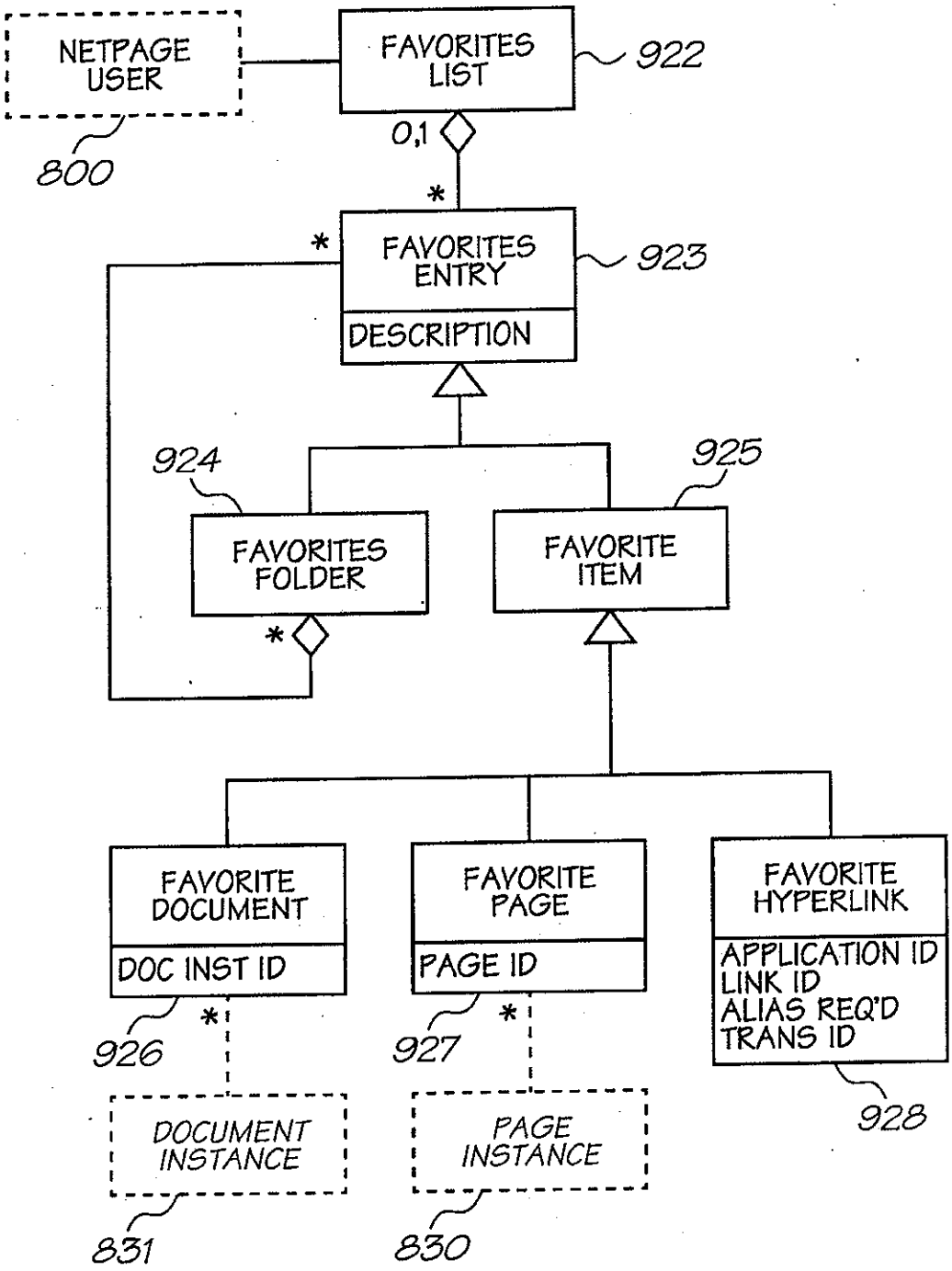

NETPAGE USER
800
FAVORITES LIST
922
0,1
*
*
FAVORITES ENTRY
923
DESCRIPTION
924
925
FAVORITES FOLDER
FAVORITE ITEM
*
FAVORITE DOCUMENT
DOC INST ID
FAVORITE PAGE
PAGE ID
FAVORITE HYPERLINK
APPLICATION ID
LINK ID
ALIAS REQ'D
TRANS ID
926
927
928
DOCUMENT INSTANCE
PAGE INSTANCE
831
830

FIG. 41

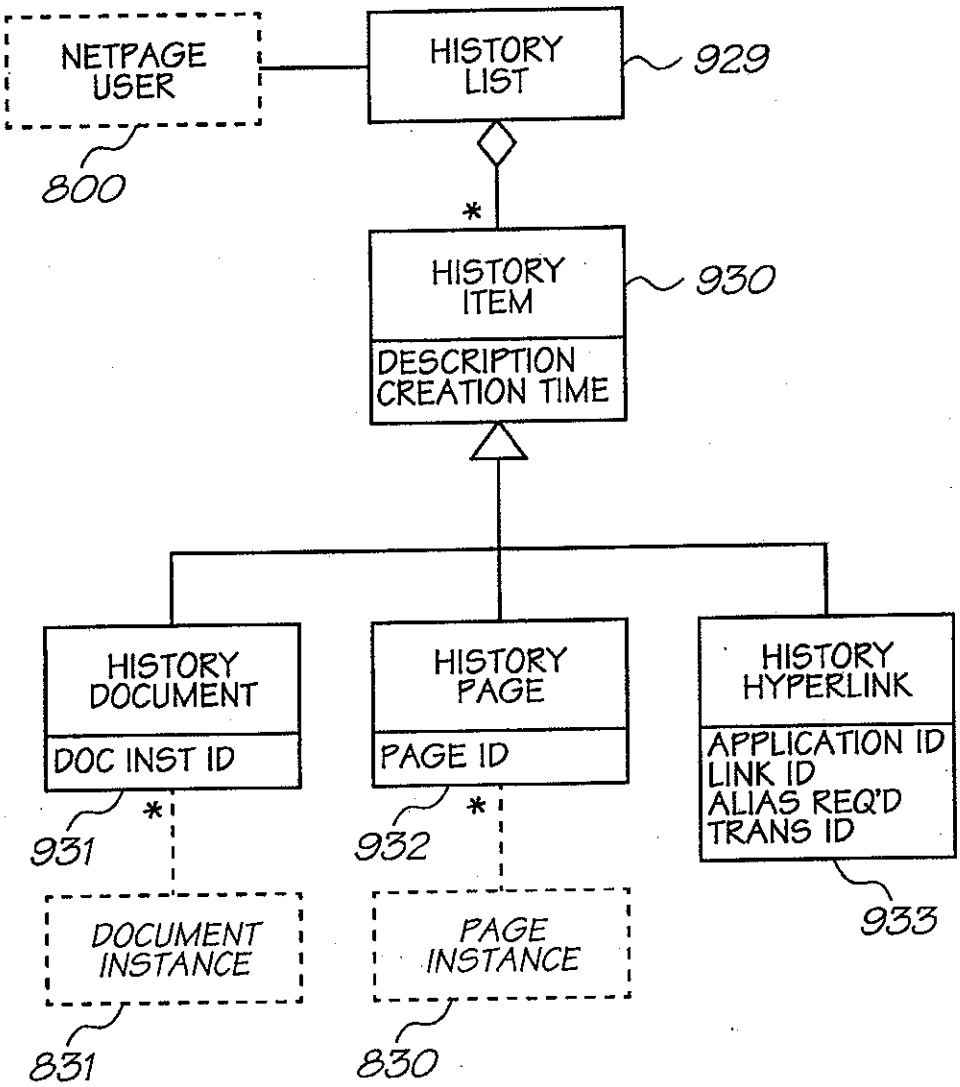

NETPAGE USER
800
HISTORY LIST
929
*
HISTORY ITEM
930
DESCRIPTION
CREATION TIME
HISTORY DOCUMENT
DOC INST ID
931
*
DOCUMENT INSTANCE
831
HISTORY PAGE
PAGE ID
932
*
PAGE INSTANCE
830
HISTORY HYPERLINK
APPLICATION ID
LINK ID
ALIAS REQ'D
TRANS ID
933

FIG. 42

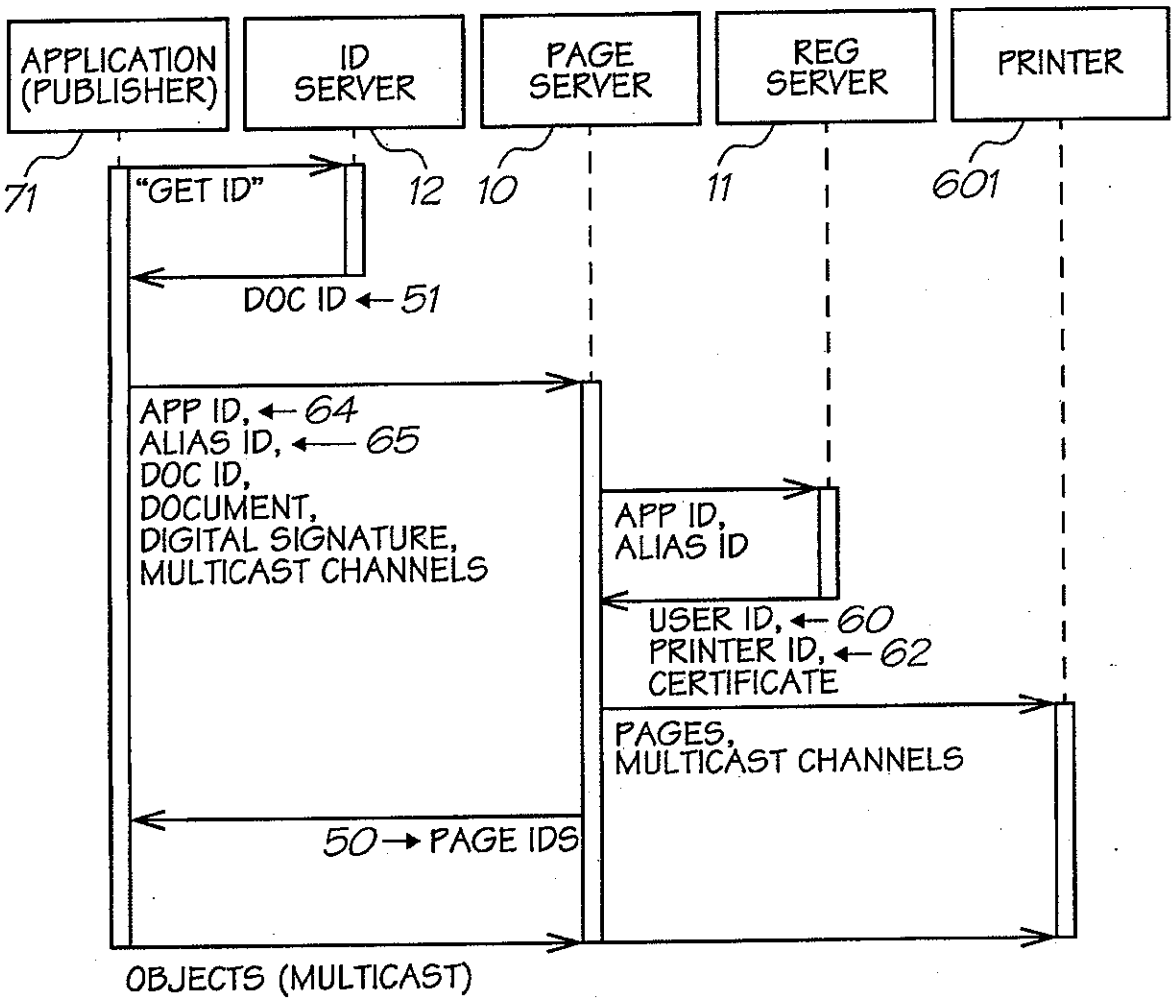

APPLICATION (PUBLISHER)
ID SERVER
PAGE SERVER
REG SERVER
PRINTER
71
12
10
11
601
"GET ID"
DOC ID ← 51
APP ID, ← 64
ALIAS ID, ← 65
DOC ID,
DOCUMENT,
DIGITAL SIGNATURE,
MULTICAST CHANNELS
APP ID,
ALIAS ID
USER ID, ← 60
PRINTER ID, ← 62
CERTIFICATE
PAGES,
MULTICAST CHANNELS
50 → PAGE IDS
OBJECTS (MULTICAST)

FIG. 43

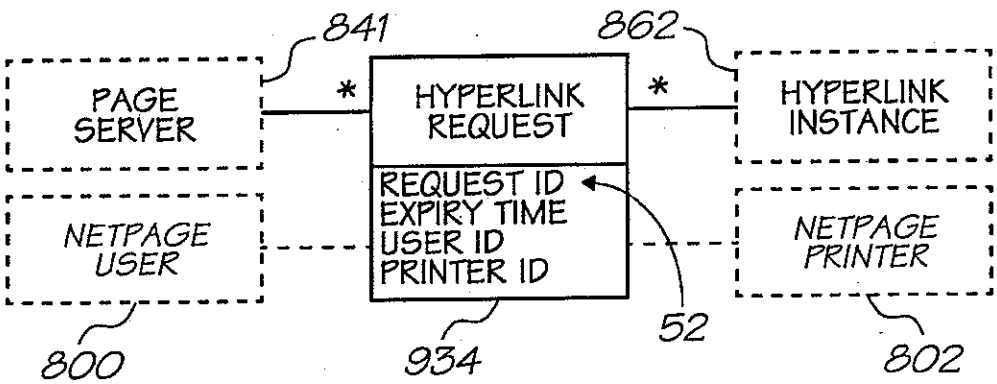

841
862
PAGE SERVER
*
HYPERLINK REQUEST
*
HYPERLINK INSTANCE
REQUEST ID
EXPIRY TIME
USER ID
PRINTER ID
NETPAGE USER
NETPAGE PRINTER
52
800
934
802

FIG. 44

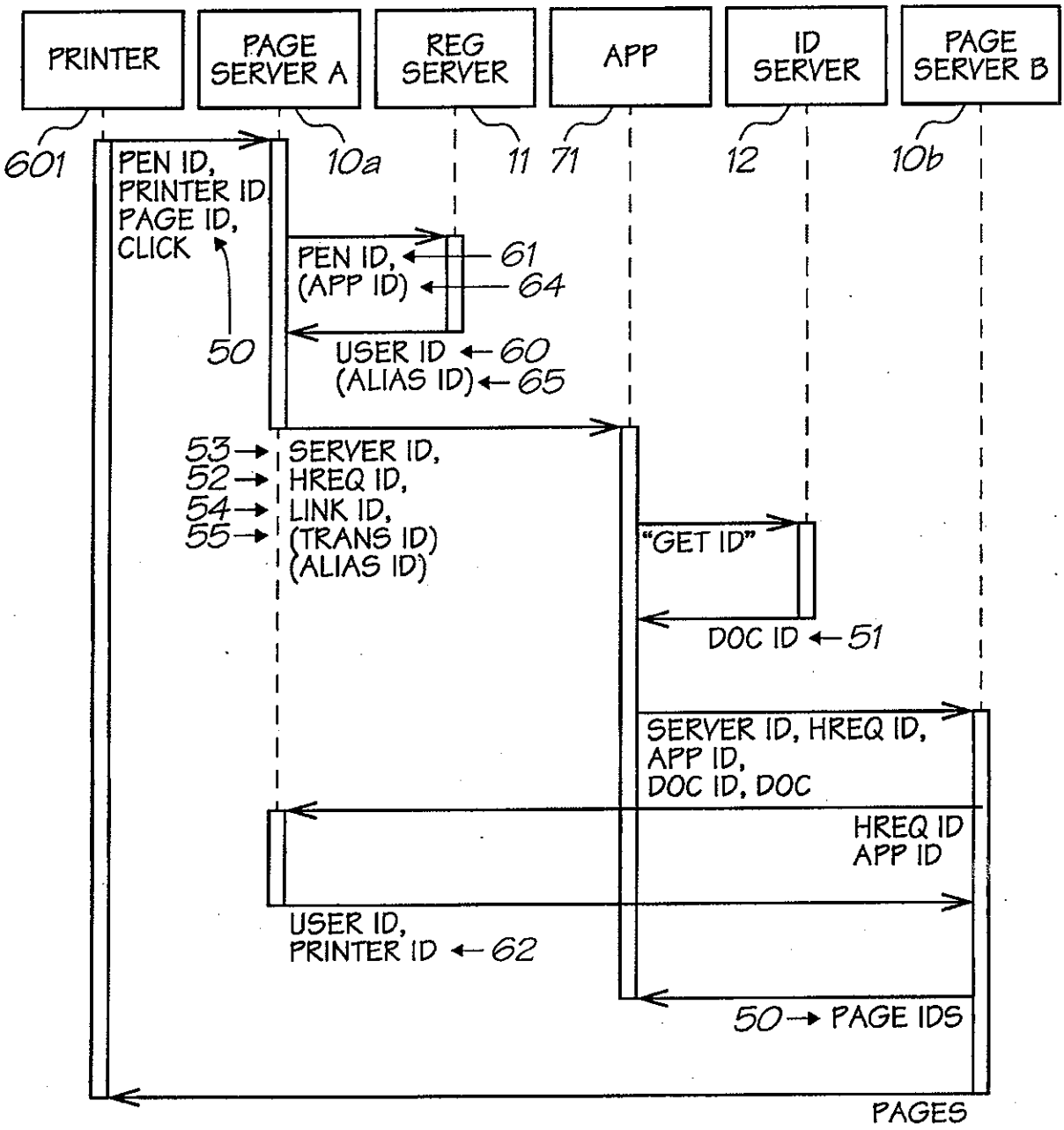

PRINTER
PAGE SERVER A
REG SERVER
APP
ID SERVER
PAGE SERVER B
601
10a
11
71
12
10b
PEN ID,
PRINTER ID
PAGE ID,
CLICK
50
PEN ID,
(APP ID)
61
64
USER ID
(ALIAS ID)
60
65
53
52
54
55
SERVER ID,
HREQ ID,
LINK ID,
(TRANS ID)
(ALIAS ID)
"GET ID"
DOC ID
51
SERVER ID, HREQ ID,
APP ID,
DOC ID, DOC
HREQ ID
APP ID
USER ID,
PRINTER ID
62
50
PAGE IDS
PAGES

FIG. 45

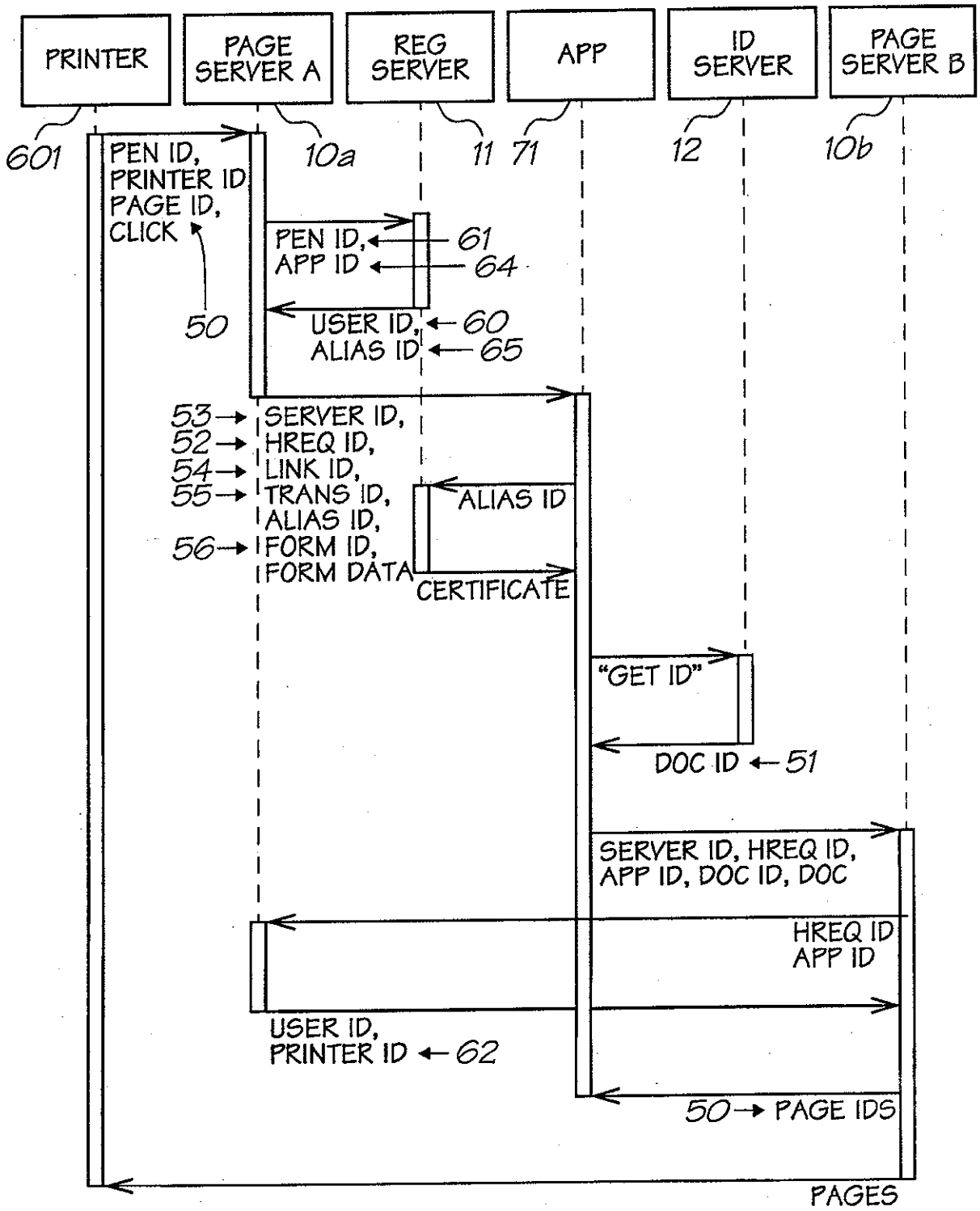

PRINTER
PAGE SERVER A
REG SERVER
APP
ID SERVER
PAGE SERVER B
601
10a
11
71
12
10b
PEN ID,
PRINTER ID
PAGE ID,
CLICK
50
PEN ID,
APP ID
61
64
USER ID,
ALIAS ID
60
65
53
52
54
55
56
SERVER ID,
HREQ ID,
LINK ID,
TRANS ID,
ALIAS ID,
FORM ID,
FORM DATA
ALIAS ID
CERTIFICATE
"GET ID"
DOC ID
51
SERVER ID, HREQ ID,
APP ID, DOC ID, DOC
HREQ ID
APP ID
USER ID,
PRINTER ID
62
50
PAGE IDS
PAGES

FIG. 46

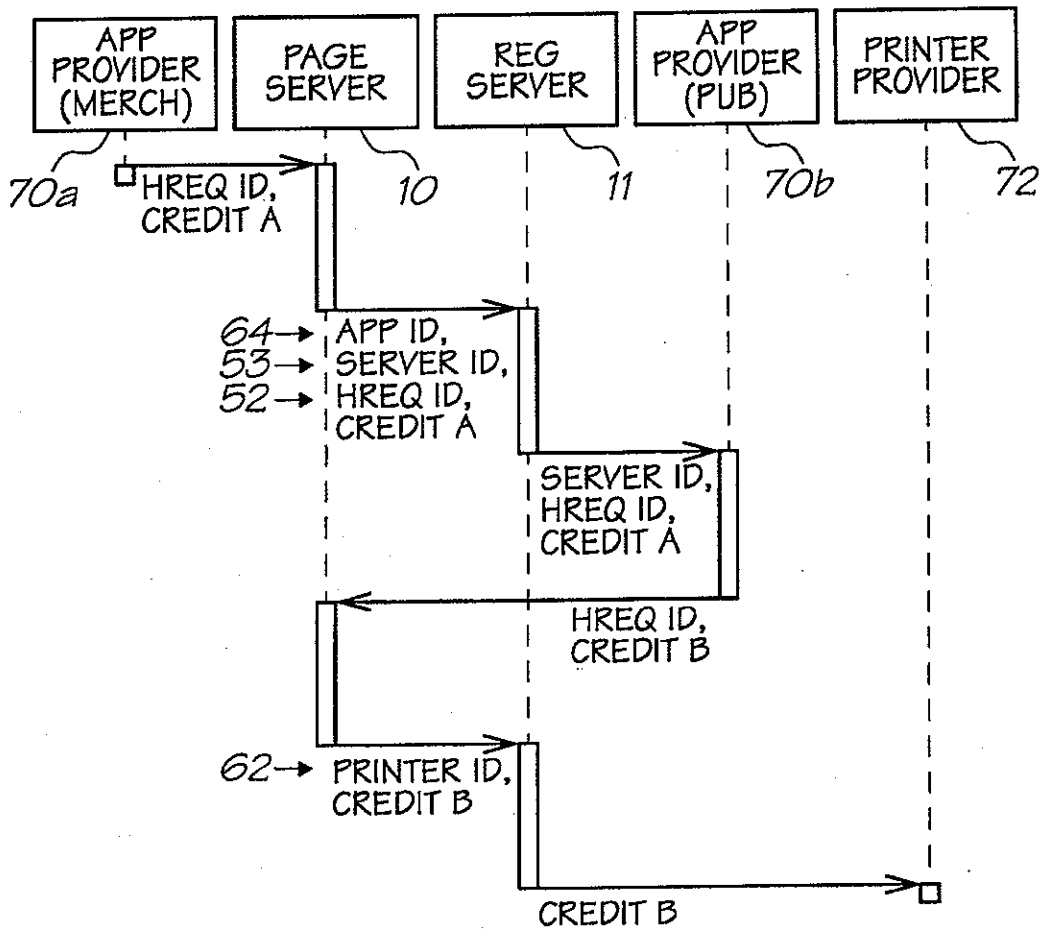

APP PROVIDER (MERCH)
PAGE SERVER
REG SERVER
APP PROVIDER (PUB)
PRINTER PROVIDER
70a
10
11
70b
72
HREQ ID, CREDIT A
64
53
52
APP ID, SERVER ID, HREQ ID, CREDIT A
SERVER ID, HREQ ID, CREDIT A
HREQ ID, CREDIT B
62
PRINTER ID, CREDIT B
CREDIT B

FIG. 47

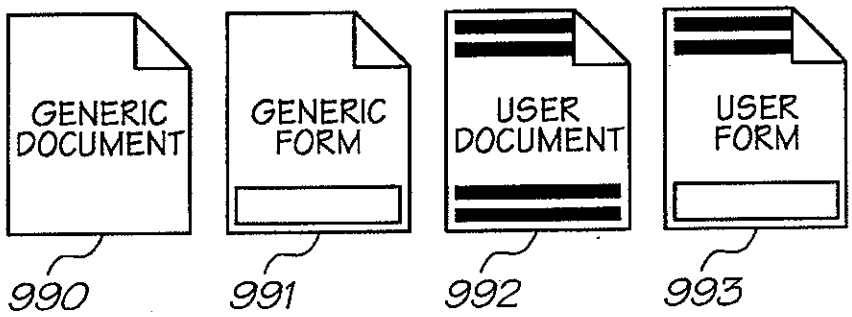

GENERIC DOCUMENT
GENERIC FORM
USER DOCUMENT
USER FORM
990
991
992
993

FIG. 48

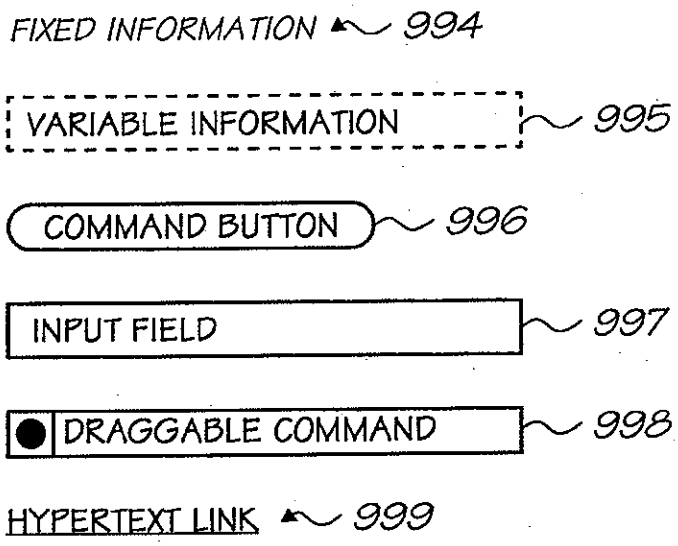

FIXED INFORMATION
994
VARIABLE INFORMATION
995
COMMAND BUTTON
996
INPUT FIELD
997
DRAGGABLE COMMAND
998
HYPERTEXT LINK
999

FIG. 49

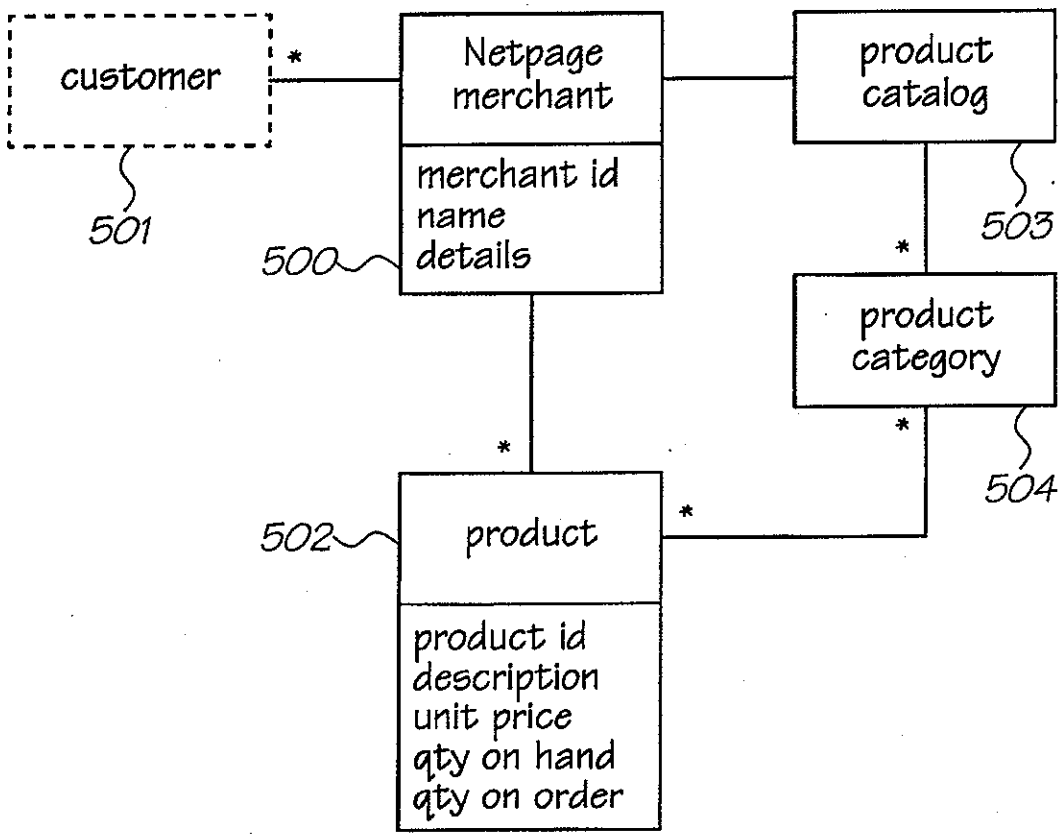

customer
*
Netpage merchant
product catalog
merchant id
name
details
501
500
503
*
product category
*
504
*
502
product
*
product id
description
unit price
qty on hand
qty on order

FIG. 50

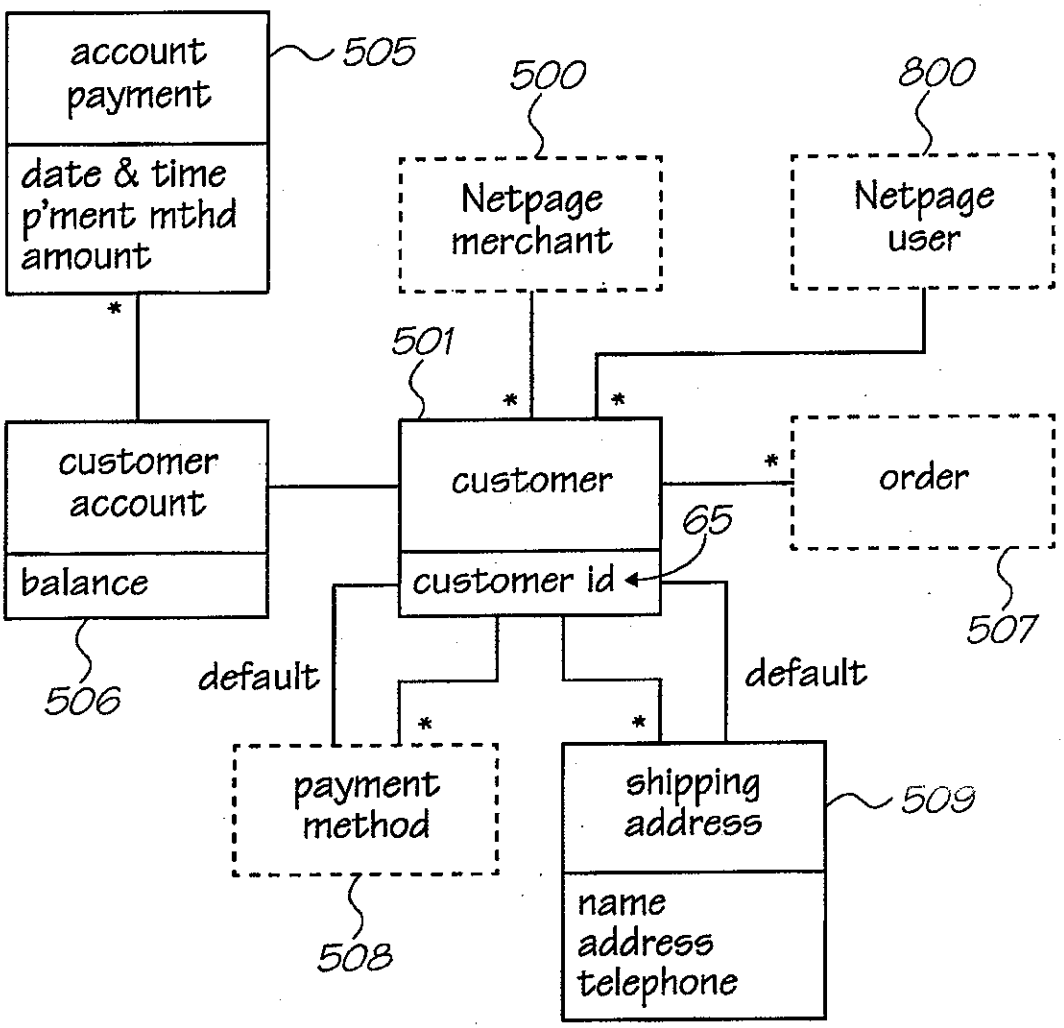

account payment
date & time
p'ment mthd
amount
505
500
Netpage merchant
800
Netpage user
501
customer account
balance
506
customer
customer id
65
order
507
default
default
payment method
508
shipping address
name
address
telephone
509

FIG. 51

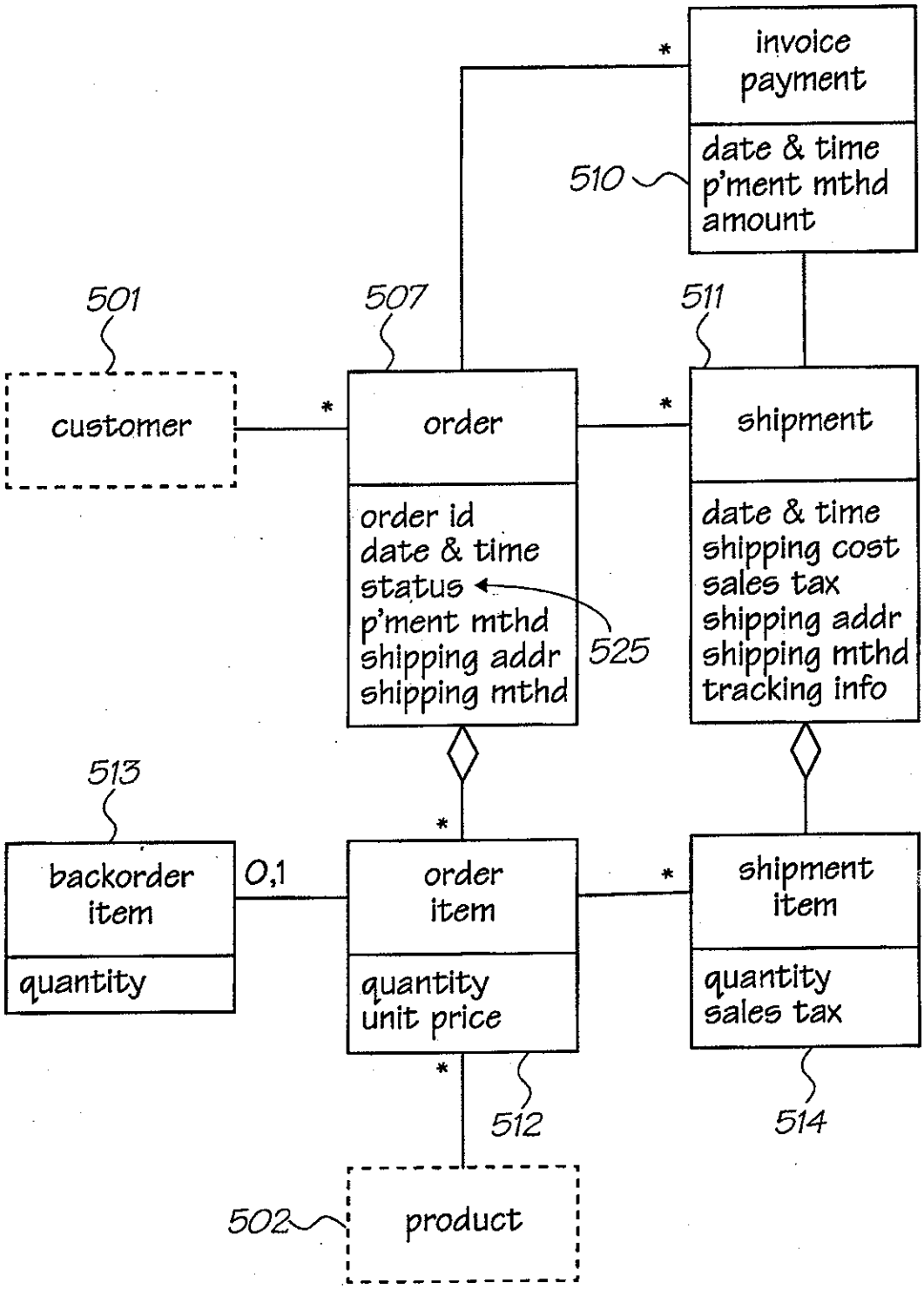

invoice payment
date & time
p'ment mthd
amount
510
501
507
511
customer
order
shipment
order id
date & time
status
p'ment mthd
shipping addr
shipping mthd
525
date & time
shipping cost
sales tax
shipping addr
shipping mthd
tracking info
513
backorder item
quantity
0,1
order item
quantity
unit price
shipment item
quantity
sales tax
512
514
502
product

FIG. 52

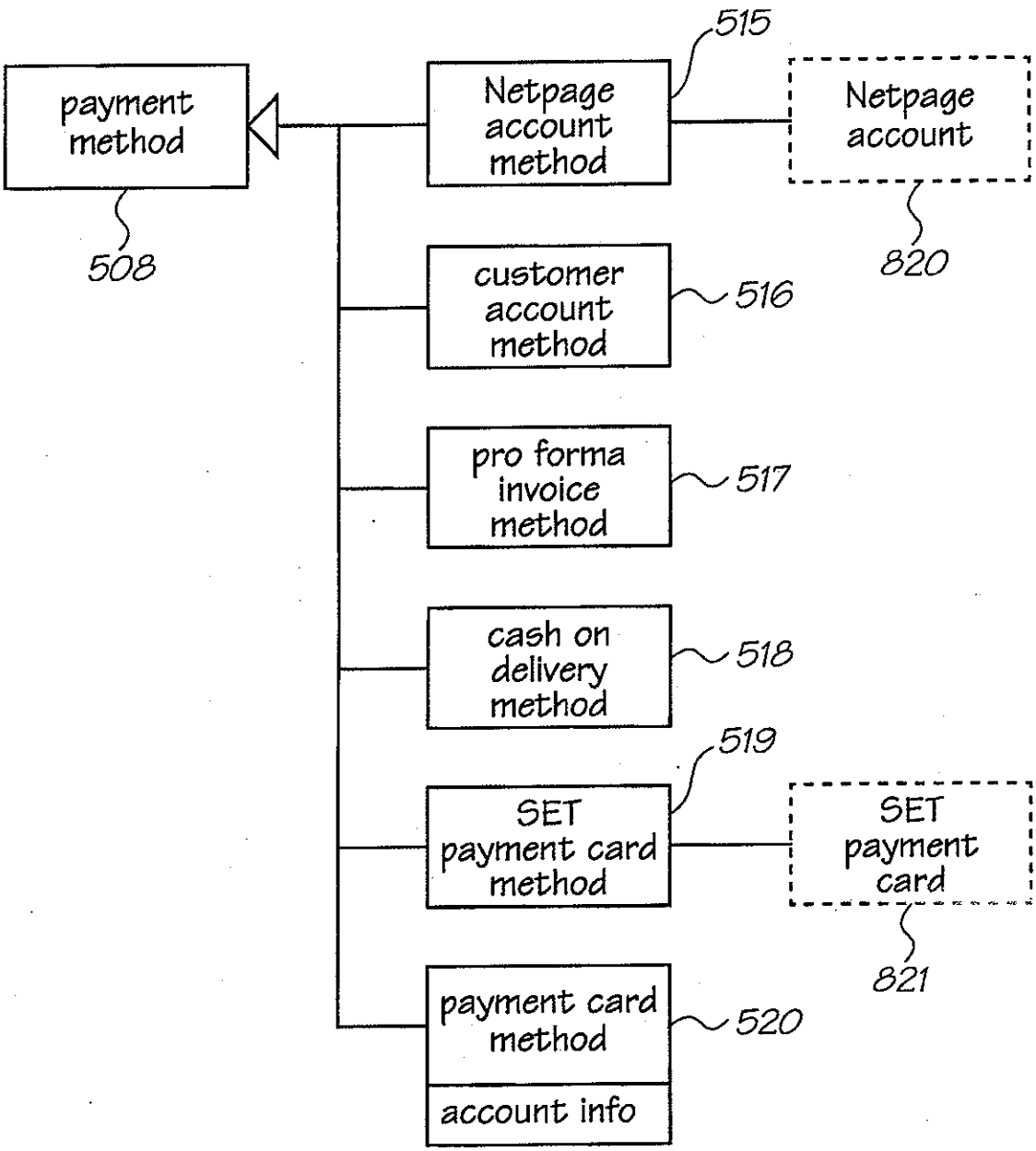

payment method
508
Netpage account method
515
Netpage account
820
customer account method
516
pro forma invoice method
517
cash on delivery method
518
SET payment card method
519
SET payment card
821
payment card method
520
account info

FIG. 53

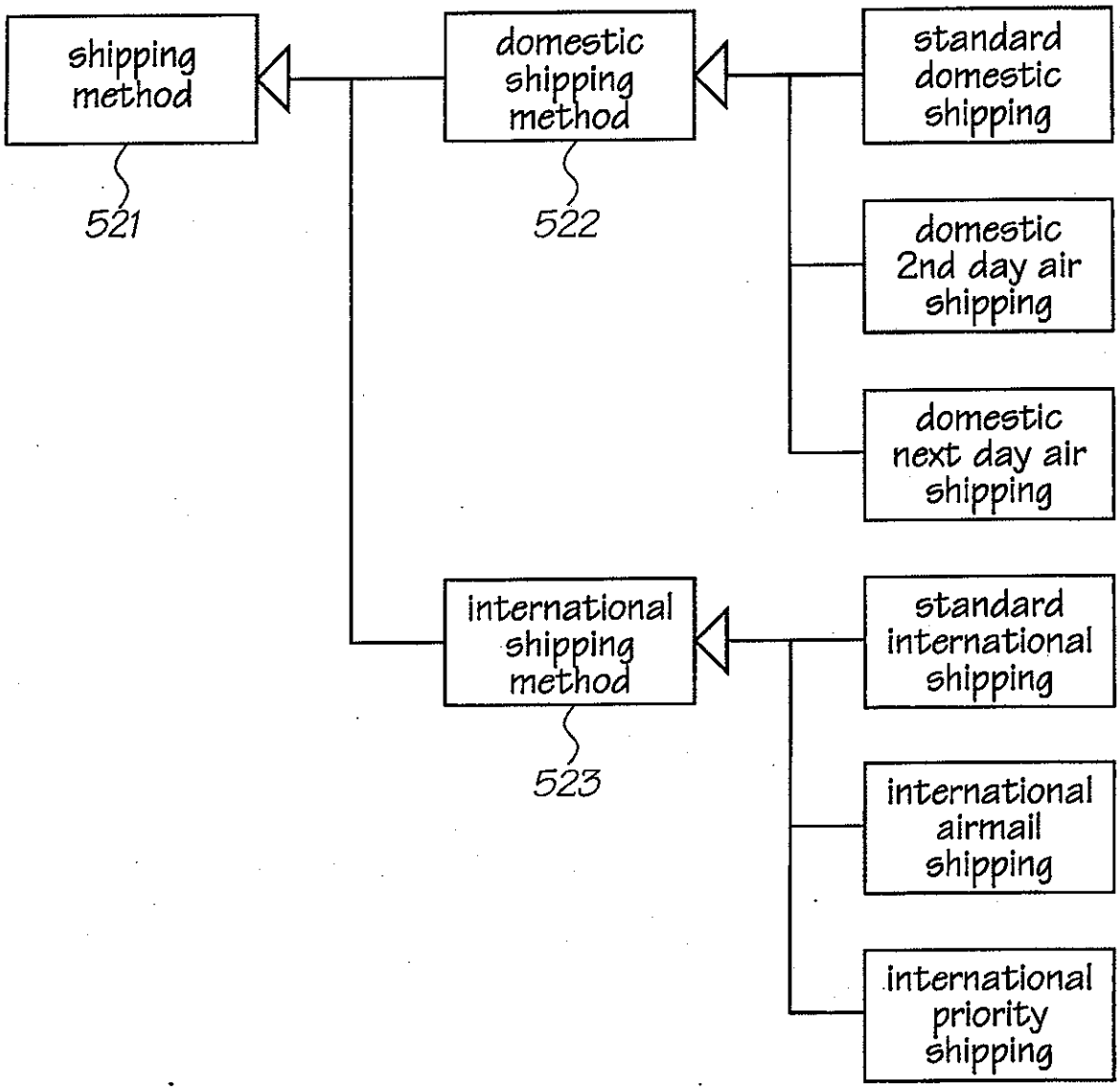

shipping method
521
domestic shipping method
522
standard domestic shipping
domestic 2nd day air shipping
domestic next day air shipping
international shipping method
523
standard international shipping
international airmail shipping
international priority shipping

FIG. 54

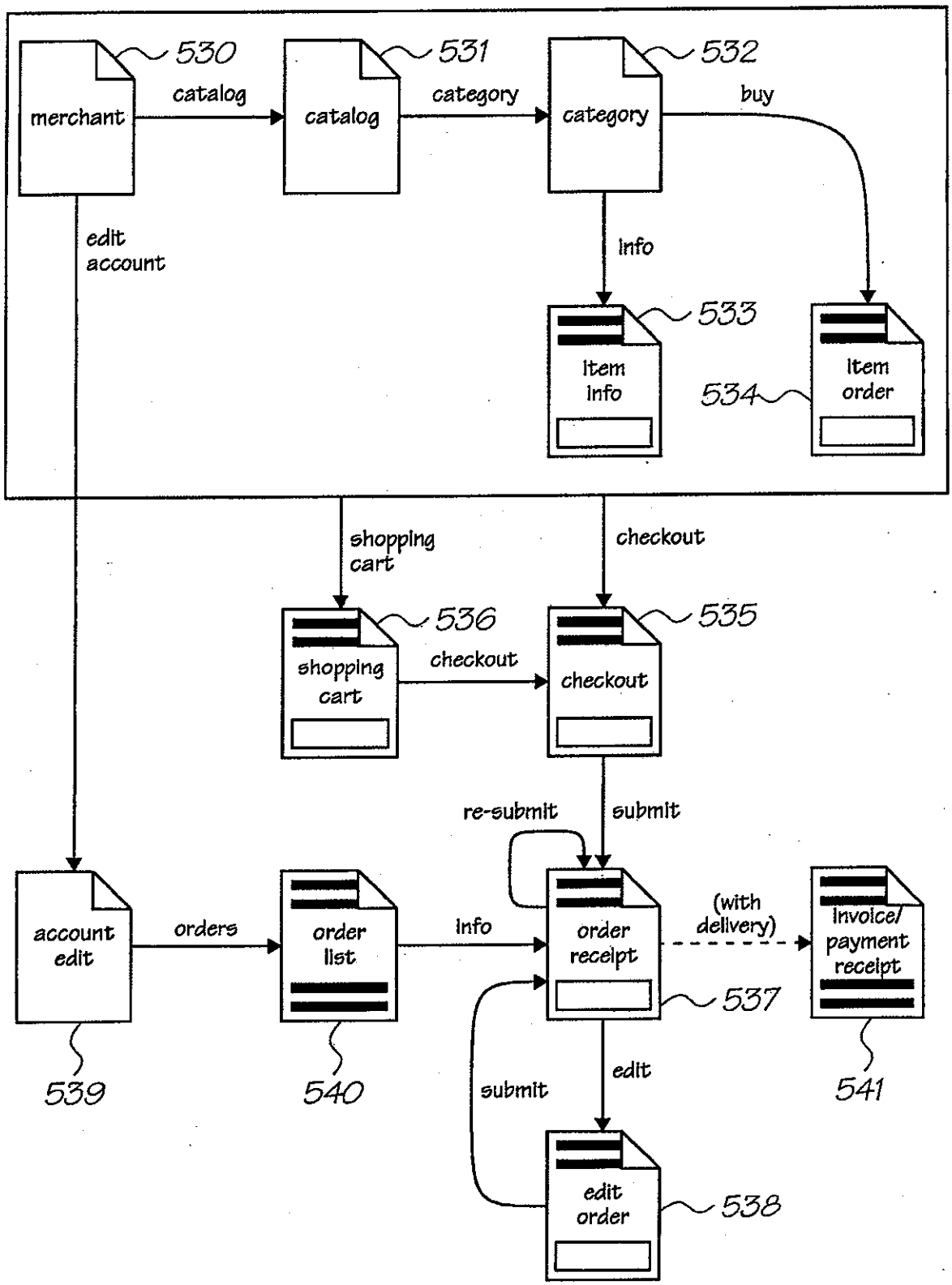

530
merchant
catalog
531
catalog
category
532
category
buy
edit
account
info
533
item
info
534
item
order
shopping
cart
checkout
536
shopping
cart
checkout
535
checkout
re-submit
submit
account
edit
orders
order
list
info
order
receipt
(with
delivery)
invoice/
payment
receipt
537
edit
submit
edit
order
538
539
540
541

FIG. 55

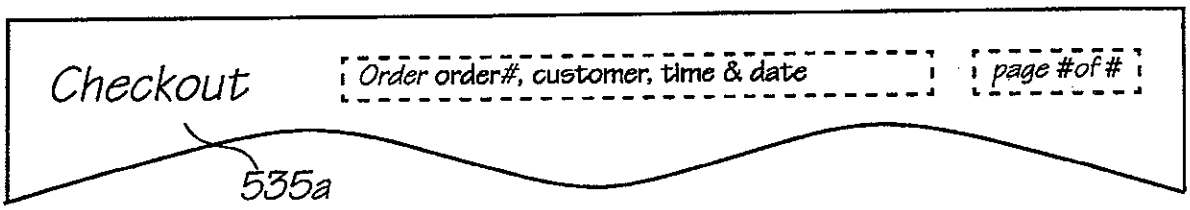

Checkout
Order order#, customer, time & date
page #of #
535a

FIG. 56

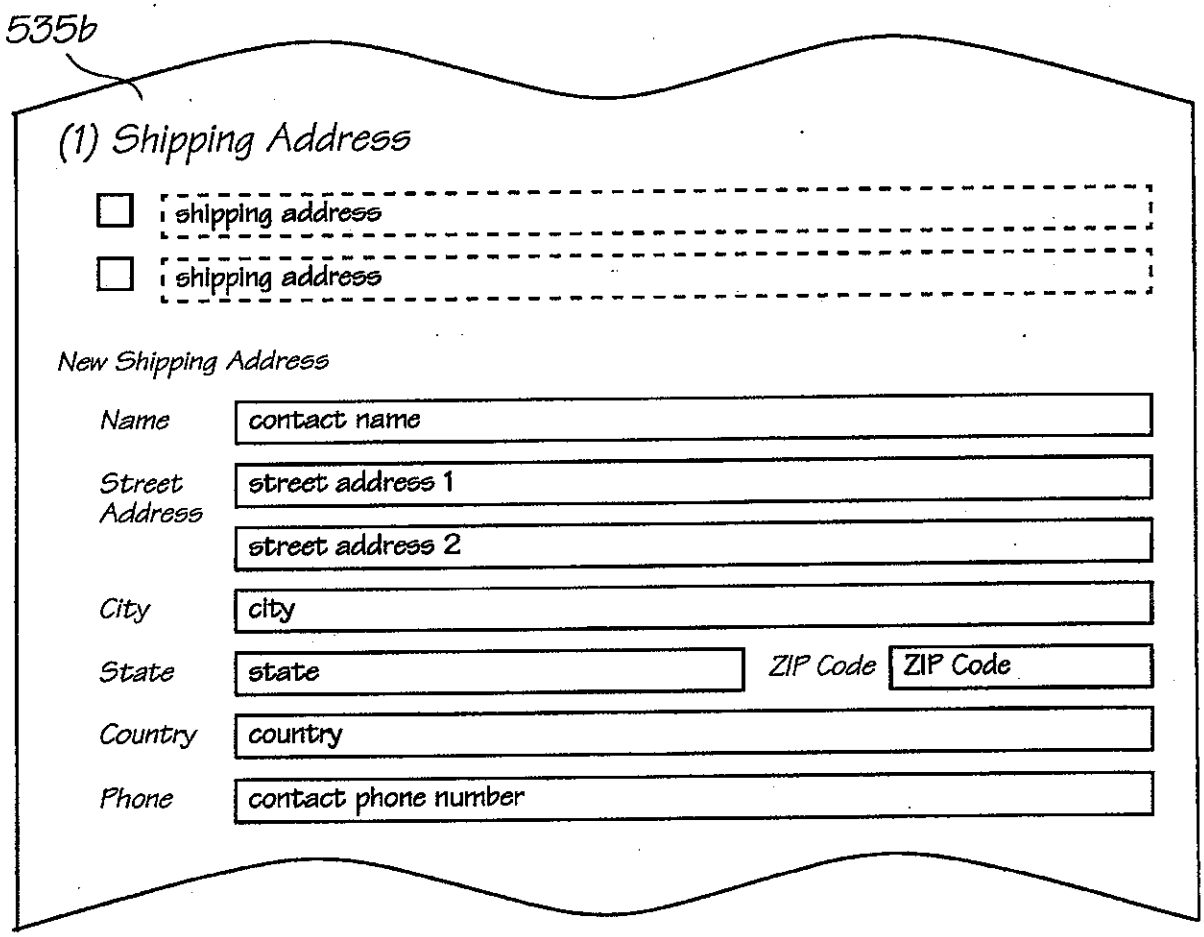

535b
(1) Shipping Address
shipping address
shipping address
New Shipping Address
Name
contact name
Street Address
street address 1
street address 2
City
city
State
state
ZIP Code
ZIP Code
Country
country
Phone
contact phone number

FIG. 57

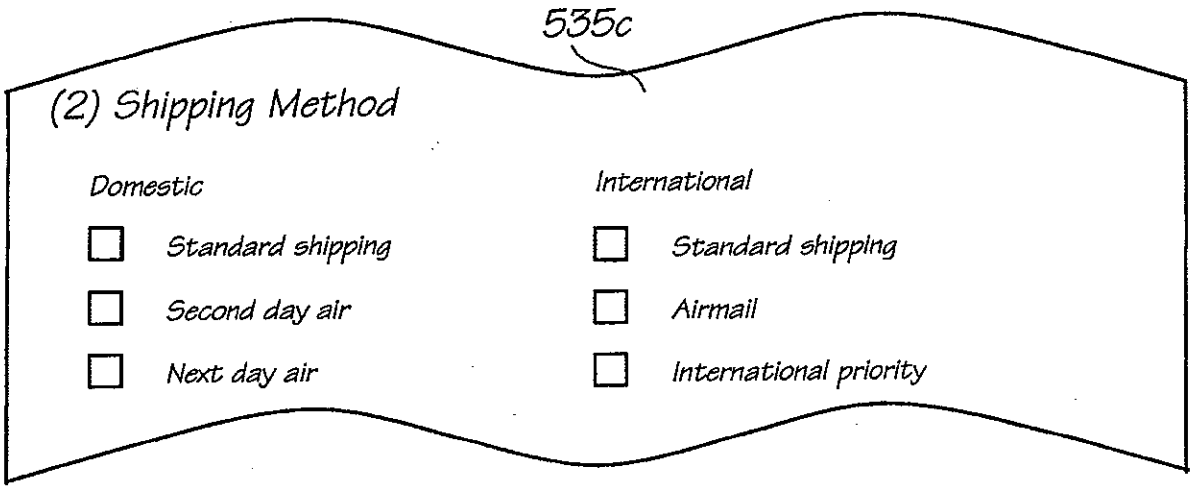

535c
(2) Shipping Method
Domestic
Standard shipping
Second day air
Next day air
International
Standard shipping
Airmail
International priority

FIG. 58

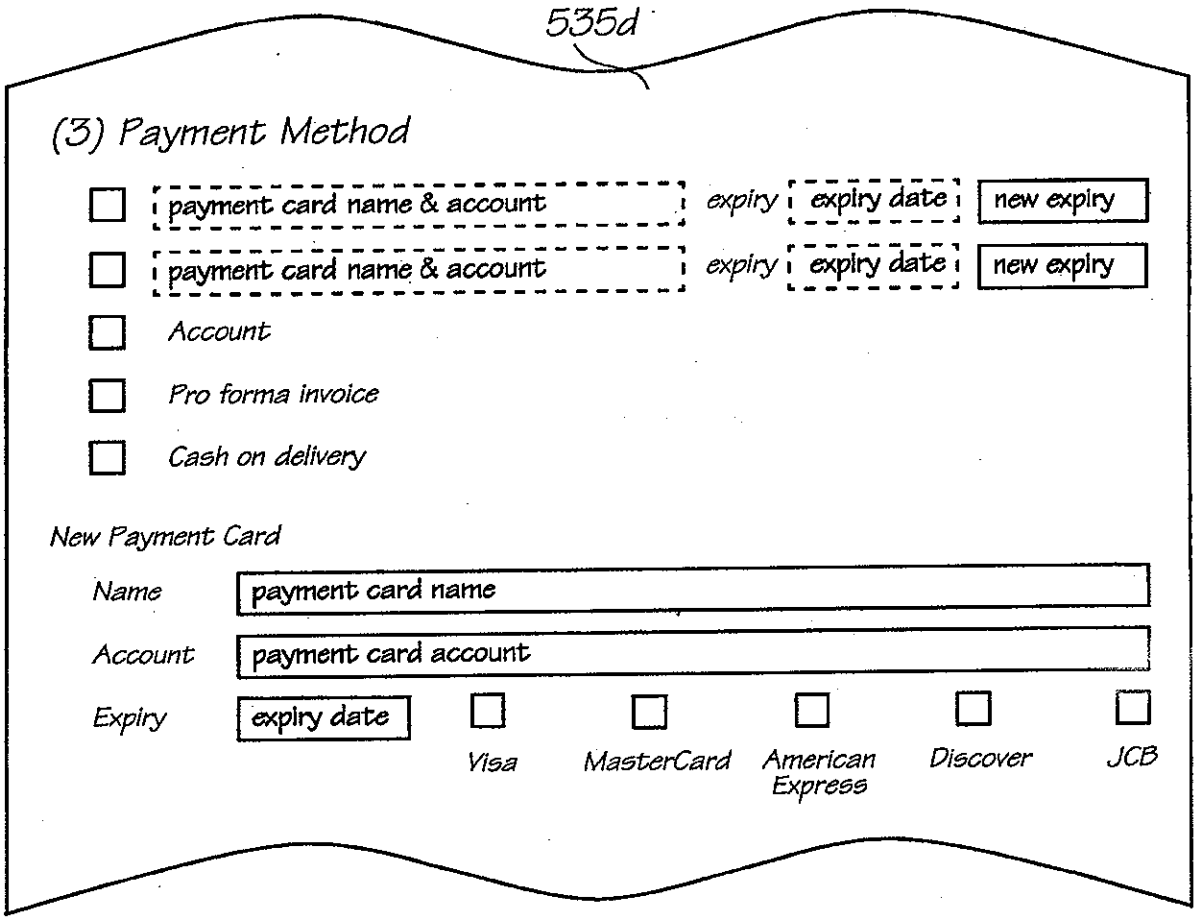

535d
(3) Payment Method
payment card name & account
expiry
expiry date
new expiry
payment card name & account
expiry
expiry date
new expiry
Account
Pro forma invoice
Cash on delivery
New Payment Card
Name
payment card name
Account
payment card account
Expiry
expiry date
Visa
MasterCard
American Express
Discover
JCB

FIG. 59

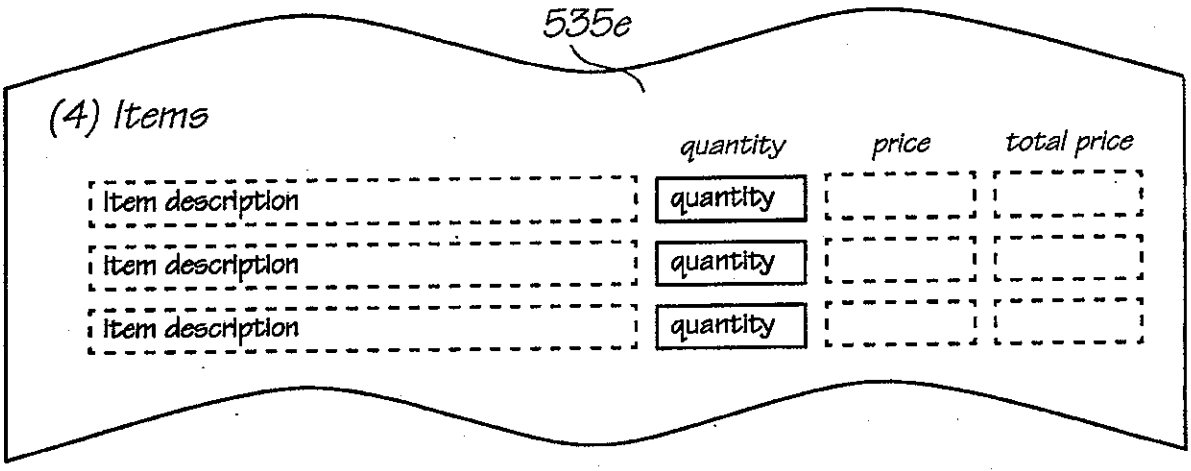

535e
(4) Items
quantity
price
total price
item description
quantity
item description
quantity
item description
quantity

FIG. 60

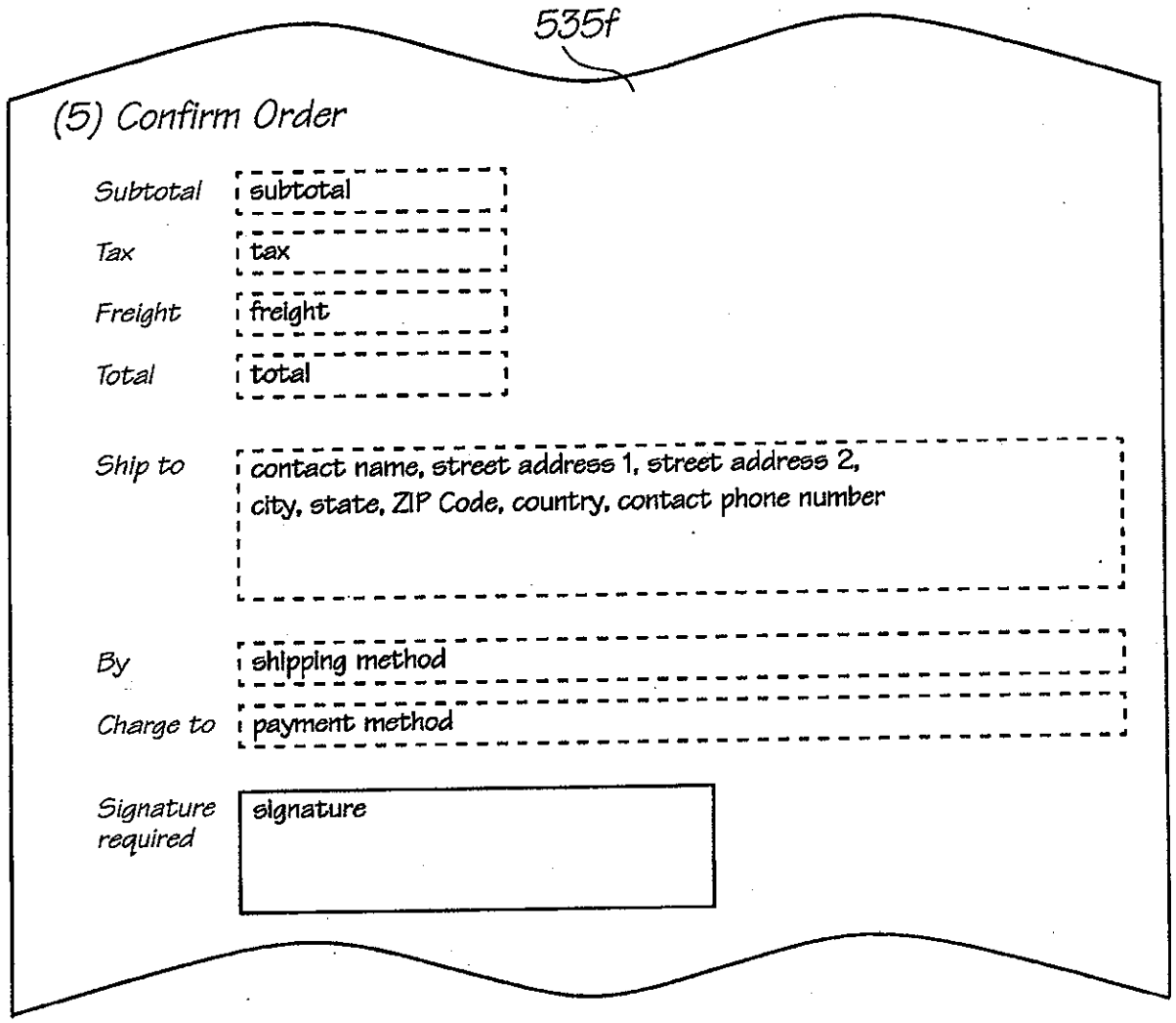

535f
(5) Confirm Order
Subtotal
subtotal
Tax
tax
Freight
freight
Total
total
Ship to
contact name, street address 1, street address 2,
city, state, ZIP Code, country, contact phone number
By
shipping method
Charge to
payment method
Signature required
signature

FIG. 61

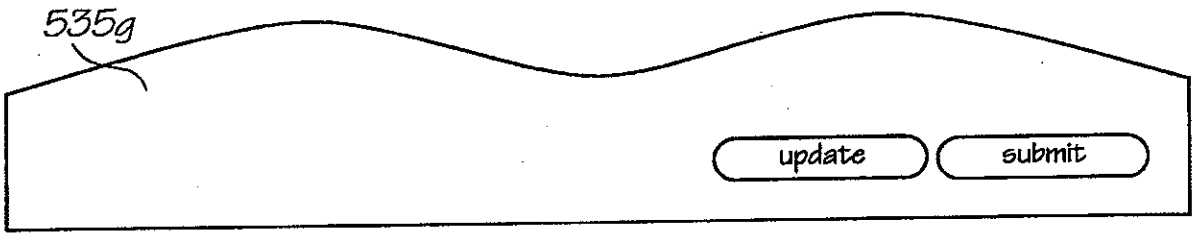

535g
update
submit

FIG. 62