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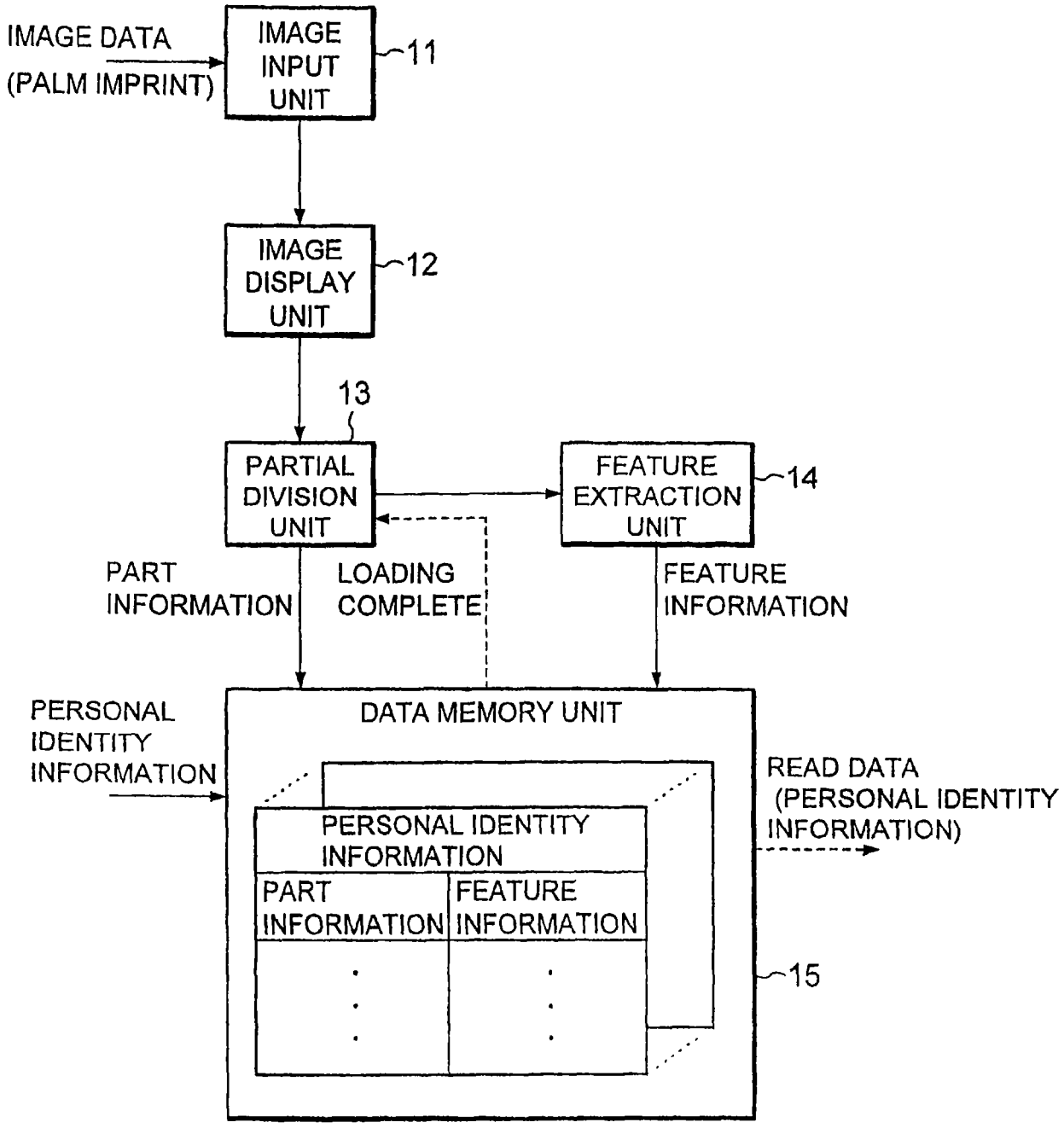

FIG. 1

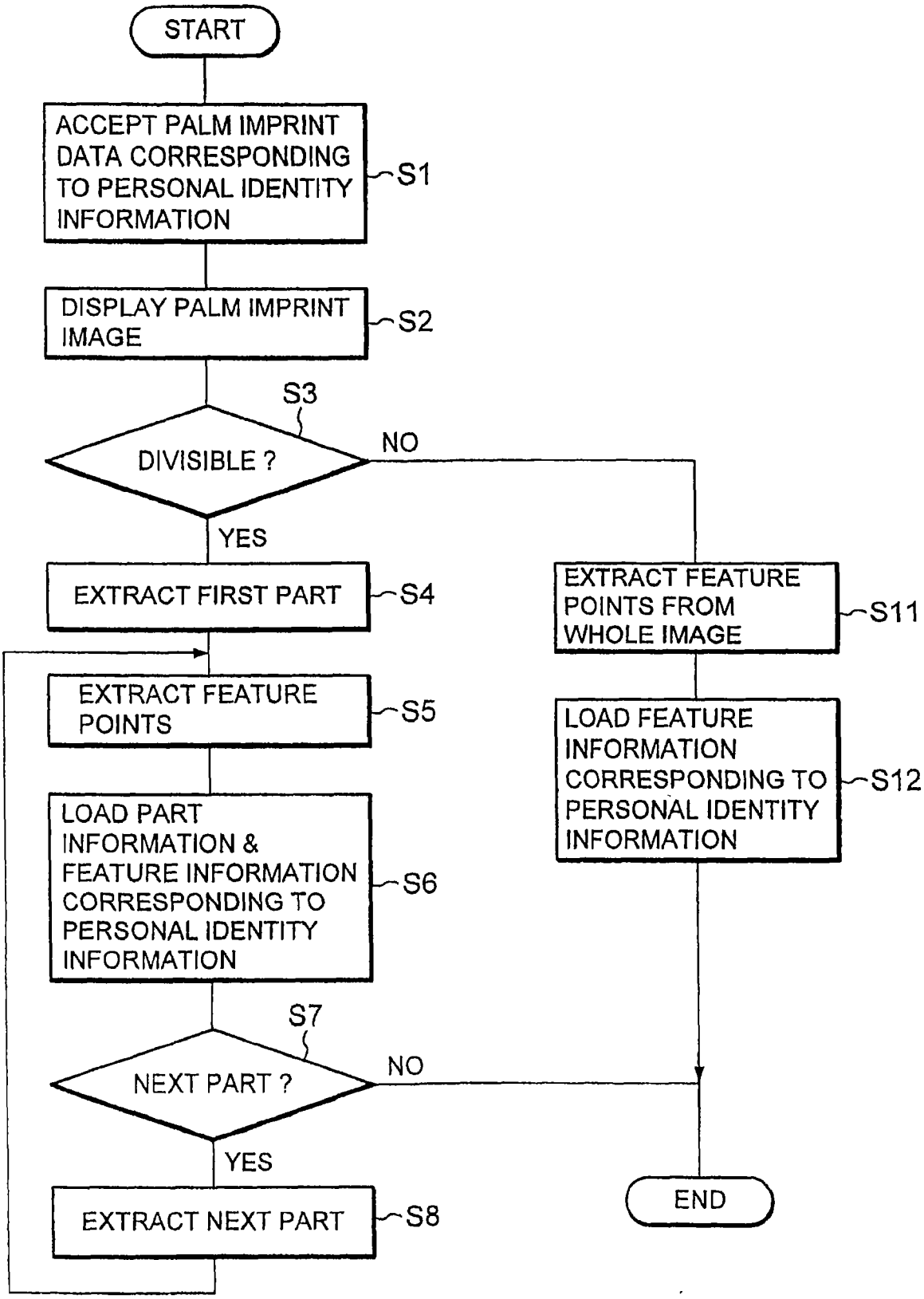
START
ACCEPT PALM IMPRINT DATA CORRESPONDING TO PERSONAL IDENTITY INFORMATION
S1
DISPLAY PALM IMPRINT IMAGE
S2
S3
DIVISIBLE ?
NO
YES
EXTRACT FIRST PART
S4
EXTRACT FEATURE POINTS
S5
LOAD PART INFORMATION & FEATURE INFORMATION CORRESPONDING TO PERSONAL IDENTITY INFORMATION
S6
S7
NEXT PART ?
NO
YES
EXTRACT NEXT PART
S8
EXTRACT FEATURE POINTS FROM WHOLE IMAGE
S11
LOAD FEATURE INFORMATION CORRESPONDING TO PERSONAL IDENTITY INFORMATION
S12
END

FIG. 2

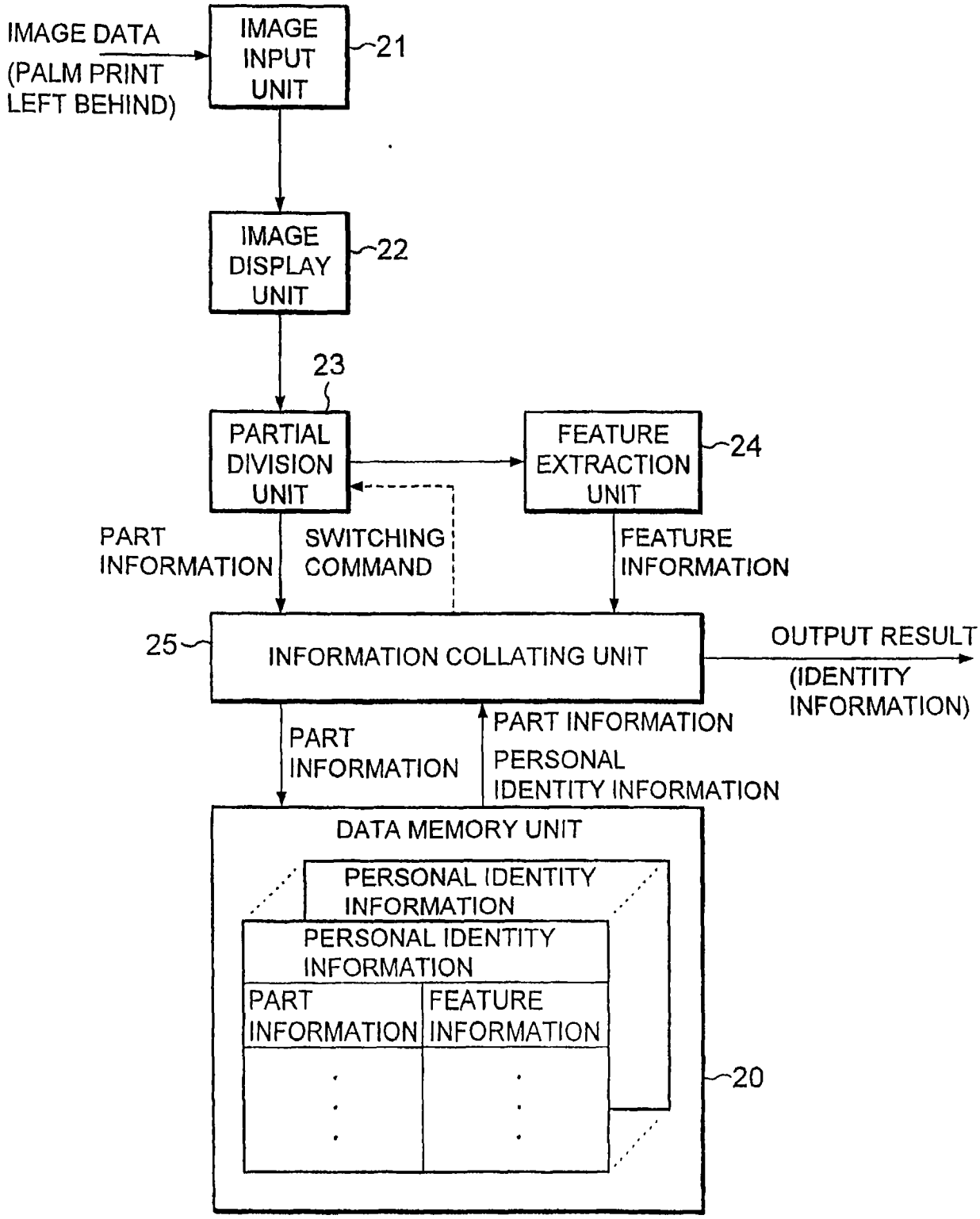
IMAGE DATA
(PALM PRINT LEFT BEHIND)
IMAGE INPUT UNIT
21
IMAGE DISPLAY UNIT
22
23
PARTIAL DIVISION UNIT
FEATURE EXTRACTION UNIT
24
PART INFORMATION
SWITCHING COMMAND
FEATURE INFORMATION
25
INFORMATION COLLATING UNIT
OUTPUT RESULT
(IDENTITY INFORMATION)
PART INFORMATION
PART INFORMATION
PERSONAL IDENTITY INFORMATION
DATA MEMORY UNIT
PERSONAL IDENTITY INFORMATION
PERSONAL IDENTITY INFORMATION
PART INFORMATION
FEATURE INFORMATION
20

FIG. 3

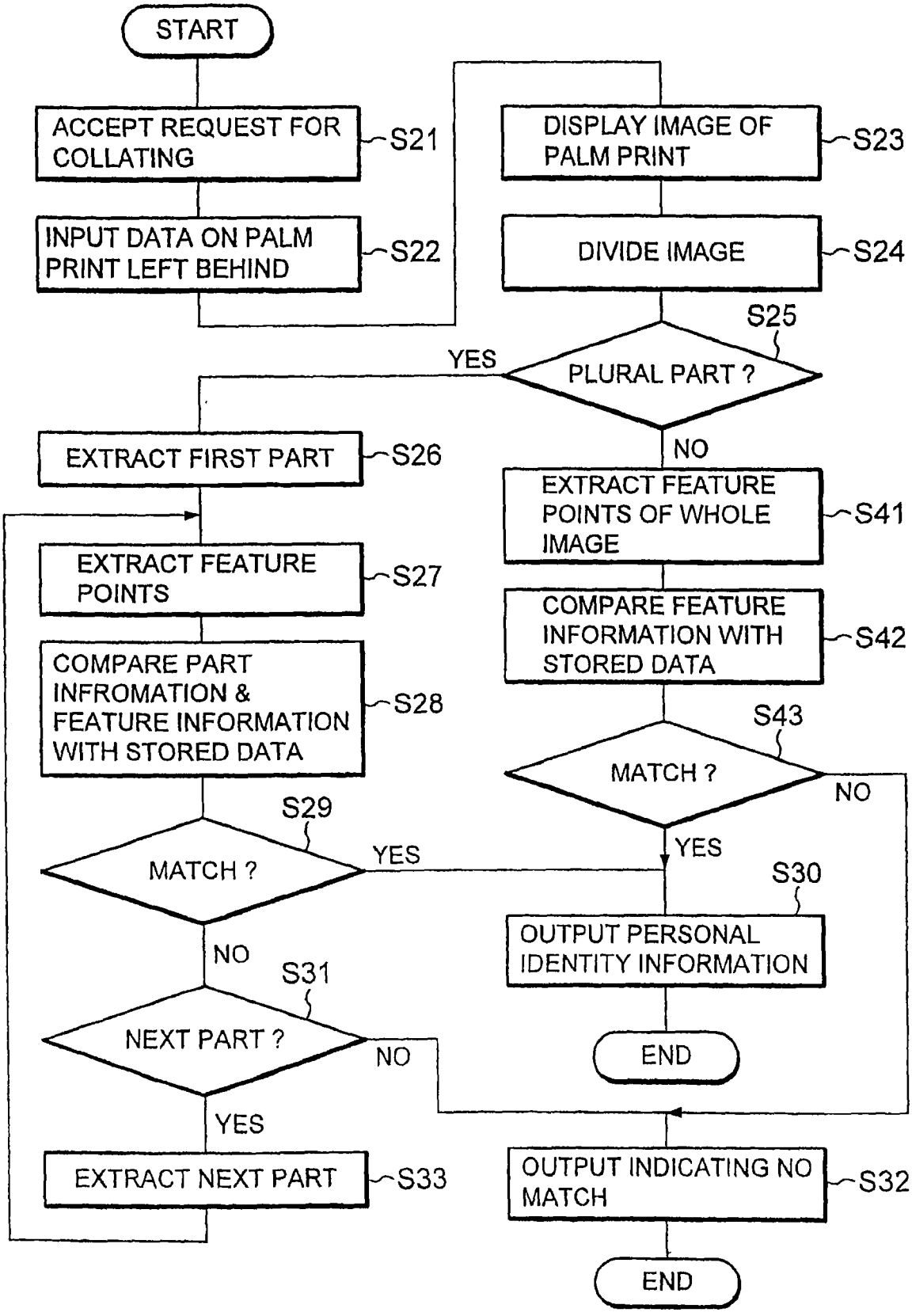
START
ACCEPT REQUEST FOR COLLATING
S21
INPUT DATA ON PALM PRINT LEFT BEHIND
S22
DISPLAY IMAGE OF PALM PRINT
S23
DIVIDE IMAGE
S24
S25
PLURAL PART ?
YES
NO
EXTRACT FIRST PART
S26
EXTRACT FEATURE POINTS
S27
COMPARE PART INFROMATION & FEATURE INFORMATION WITH STORED DATA
S28
S29
MATCH ?
YES
NO
S31
NEXT PART ?
NO
YES
EXTRACT NEXT PART
S33
EXTRACT FEATURE POINTS OF WHOLE IMAGE
S41
COMPARE FEATURE INFORMATION WITH STORED DATA
S42
S43
MATCH ?
NO
YES
S30
OUTPUT PERSONAL IDENTITY INFORMATION
END
OUTPUT INDICATING NO MATCH
S32
END

FIG. 4

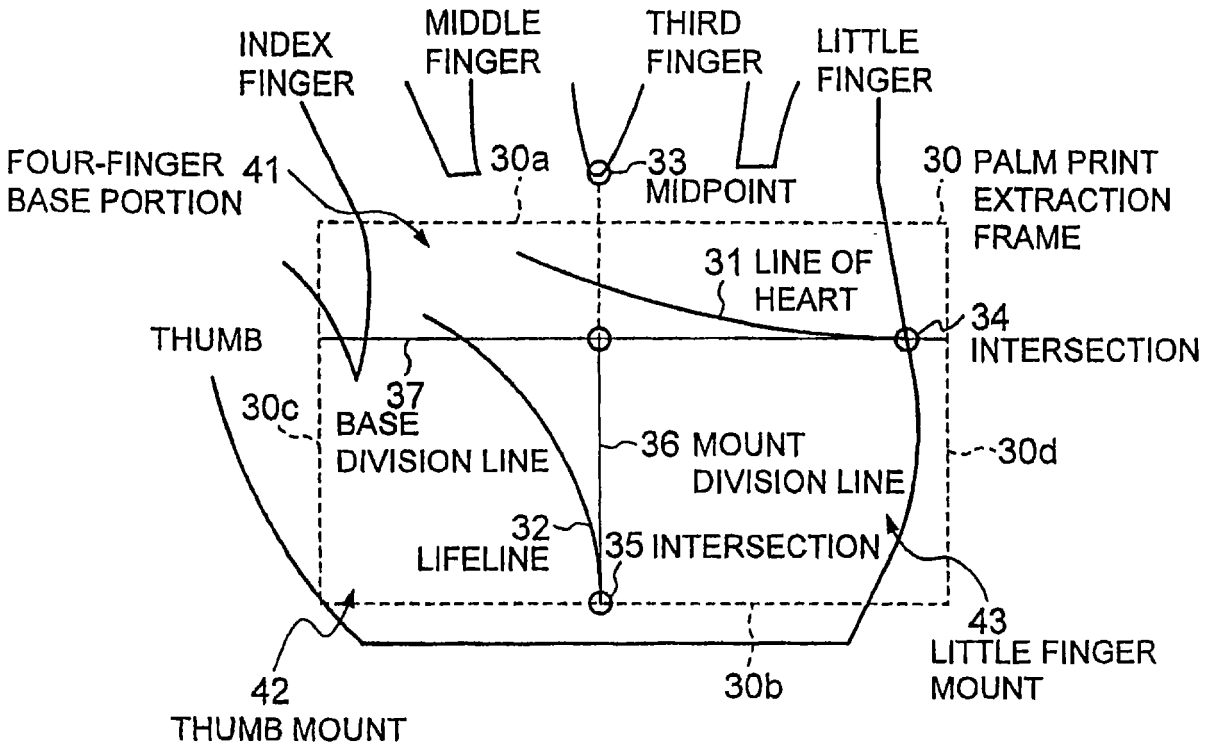
INDEX FINGER
MIDDLE FINGER
THIRD FINGER
LITTLE FINGER
FOUR-FINGER BASE PORTION
41
30a
33 MIDPOINT
30 PALM PRINT EXTRACTION FRAME
31 LINE OF HEART
34 INTERSECTION
THUMB
37
30c
BASE DIVISION LINE
36 MOUNT DIVISION LINE
30d
32 LIFELINE
35 INTERSECTION
43 LITTLE FINGER MOUNT
42 THUMB MOUNT
30b

FIG. 5

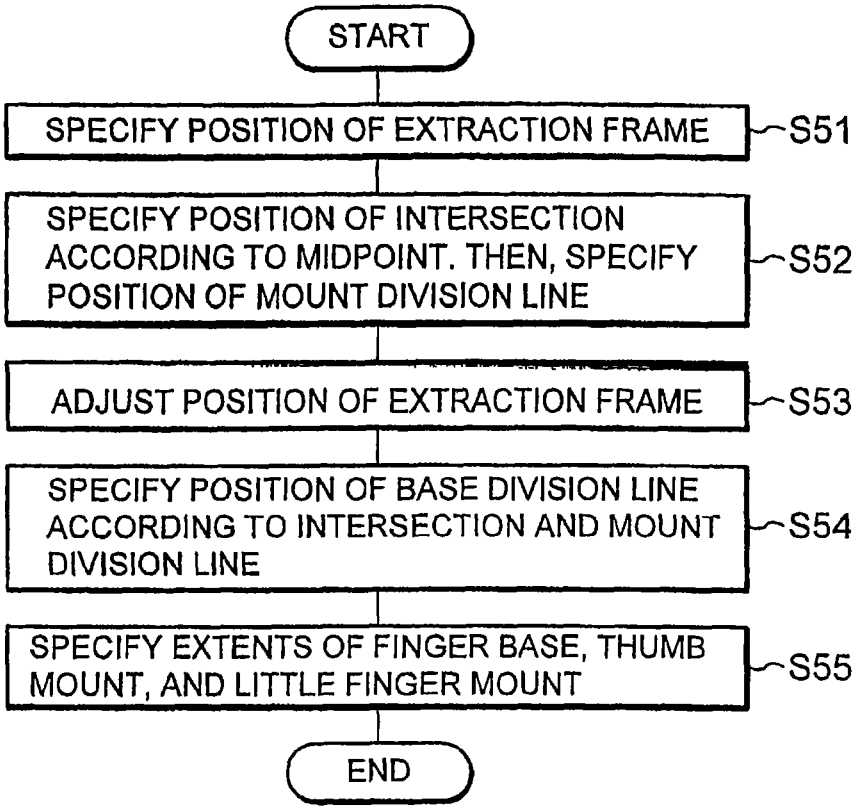
START
SPECIFY POSITION OF EXTRACTION FRAME
S51
SPECIFY POSITION OF INTERSECTION ACCORDING TO MIDPOINT. THEN, SPECIFY POSITION OF MOUNT DIVISION LINE
S52
ADJUST POSITION OF EXTRACTION FRAME
S53
SPECIFY POSITION OF BASE DIVISION LINE ACCORDING TO INTERSECTION AND MOUNT DIVISION LINE
S54
SPECIFY EXTENTS OF FINGER BASE, THUMB MOUNT, AND LITTLE FINGER MOUNT
S55
END

FIG. 6

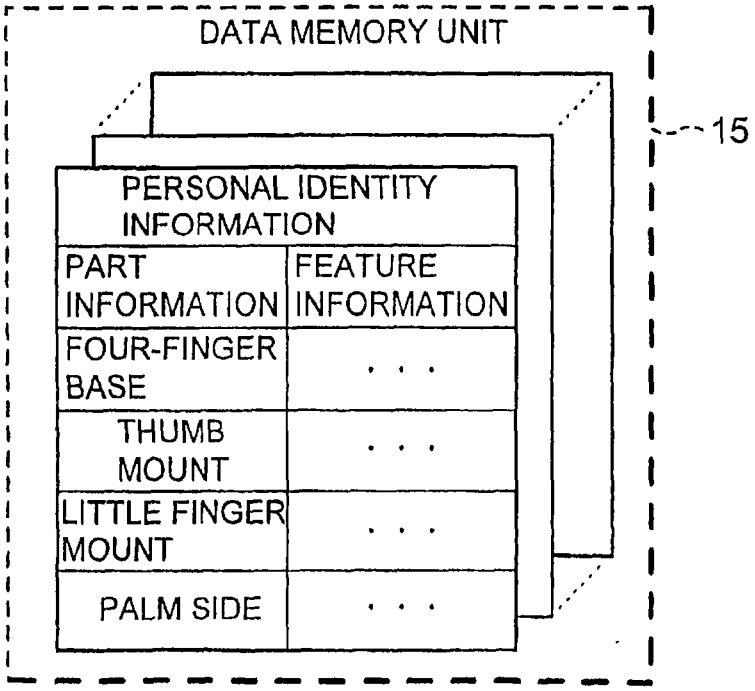
DATA MEMORY UNIT
15
PERSONAL IDENTITY INFORMATION
PART INFORMATION
FEATURE INFORMATION
FOUR-FINGER BASE
THUMB MOUNT
LITTLE FINGER MOUNT
PALM SIDE
. . .

FIG. 7

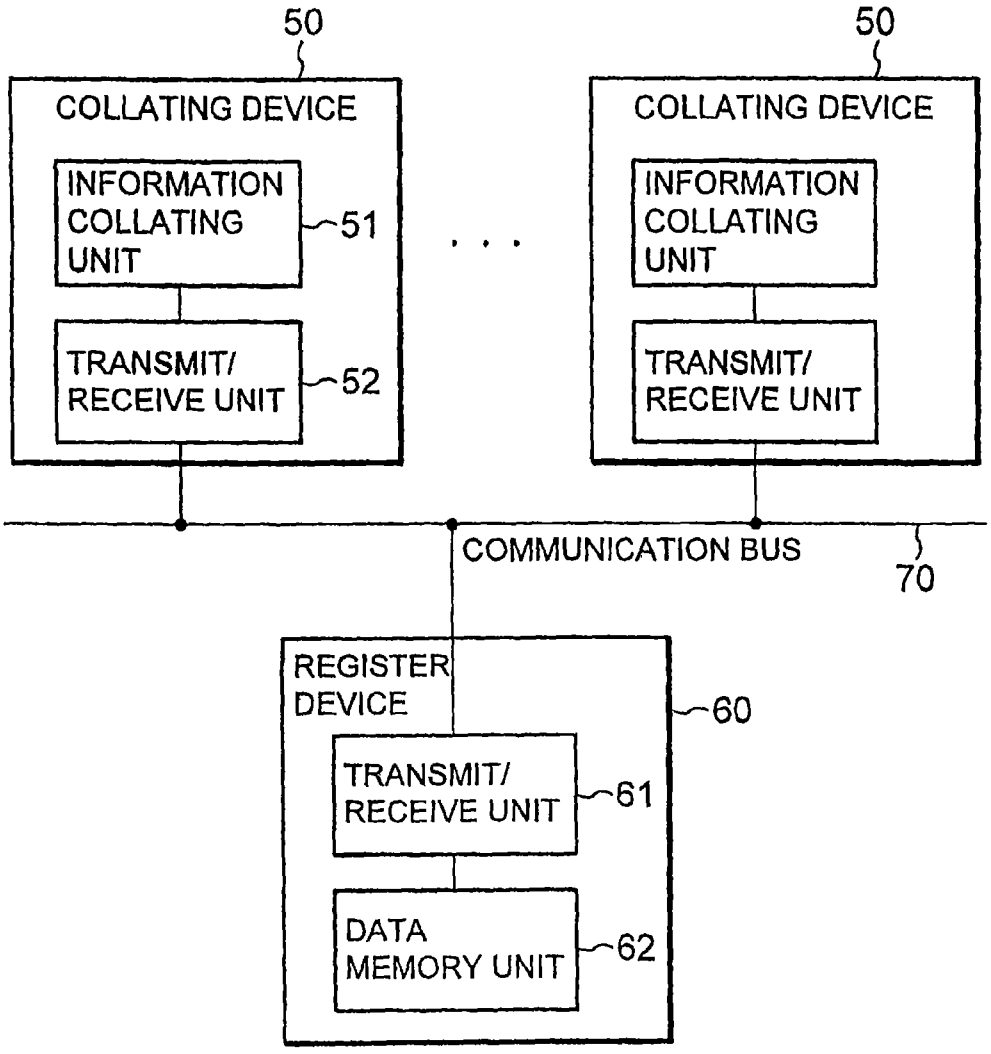
50
50
COLLATING DEVICE
COLLATING DEVICE
INFORMATION COLLATING UNIT
51
TRANSMIT/ RECEIVE UNIT
52
INFORMATION COLLATING UNIT
TRANSMIT/ RECEIVE UNIT
COMMUNICATION BUS
70
REGISTER DEVICE
60
TRANSMIT/ RECEIVE UNIT
61
DATA MEMORY UNIT
62

FIG. 8

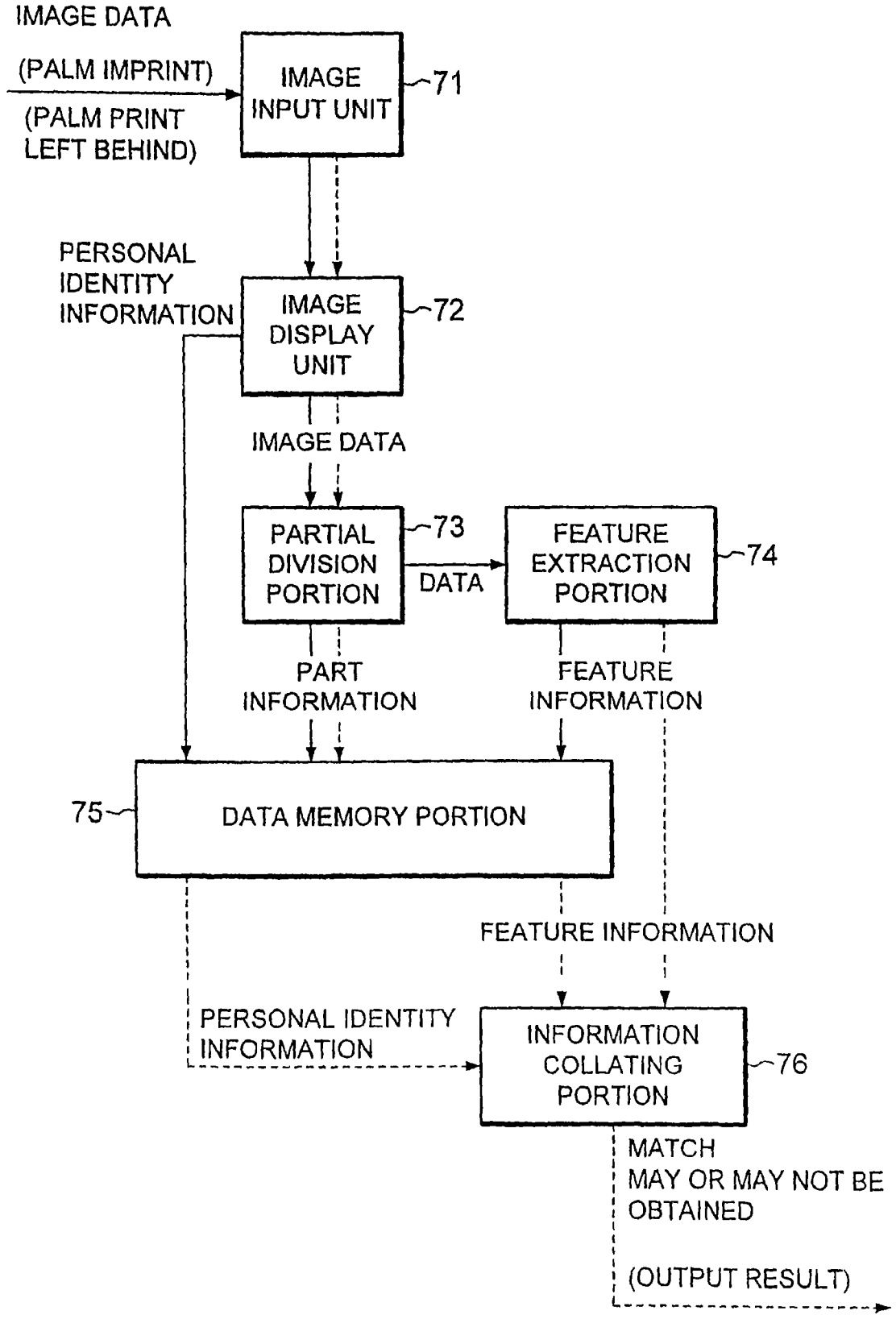
IMAGE DATA
(PALM IMPRINT)
(PALM PRINT LEFT BEHIND)
IMAGE INPUT UNIT
71
PERSONAL IDENTITY INFORMATION
IMAGE DISPLAY UNIT
72
IMAGE DATA
PARTIAL DIVISION PORTION
73
DATA
FEATURE EXTRACTION PORTION
74
PART INFORMATION
FEATURE INFORMATION
75
DATA MEMORY PORTION
FEATURE INFORMATION
PERSONAL IDENTITY INFORMATION
INFORMATION COLLATING PORTION
76
MATCH MAY OR MAY NOT BE OBTAINED
(OUTPUT RESULT)

FIG. 9