FIG.1

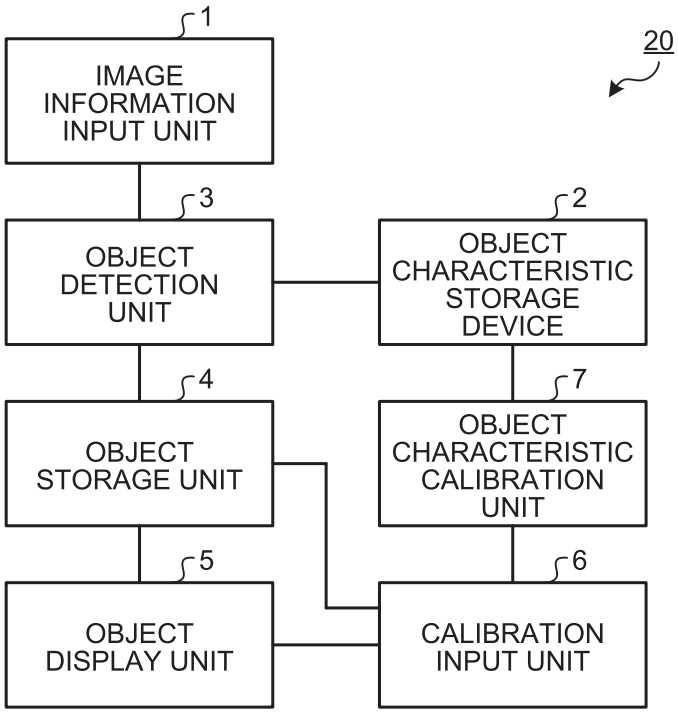

1
IMAGE INFORMATION INPUT UNIT
20
3
OBJECT DETECTION UNIT
2
OBJECT CHARACTERISTIC STORAGE DEVICE
4
OBJECT STORAGE UNIT
7
OBJECT CHARACTERISTIC CALIBRATION UNIT
5
OBJECT DISPLAY UNIT
6
CALIBRATION INPUT UNIT

FIG.2

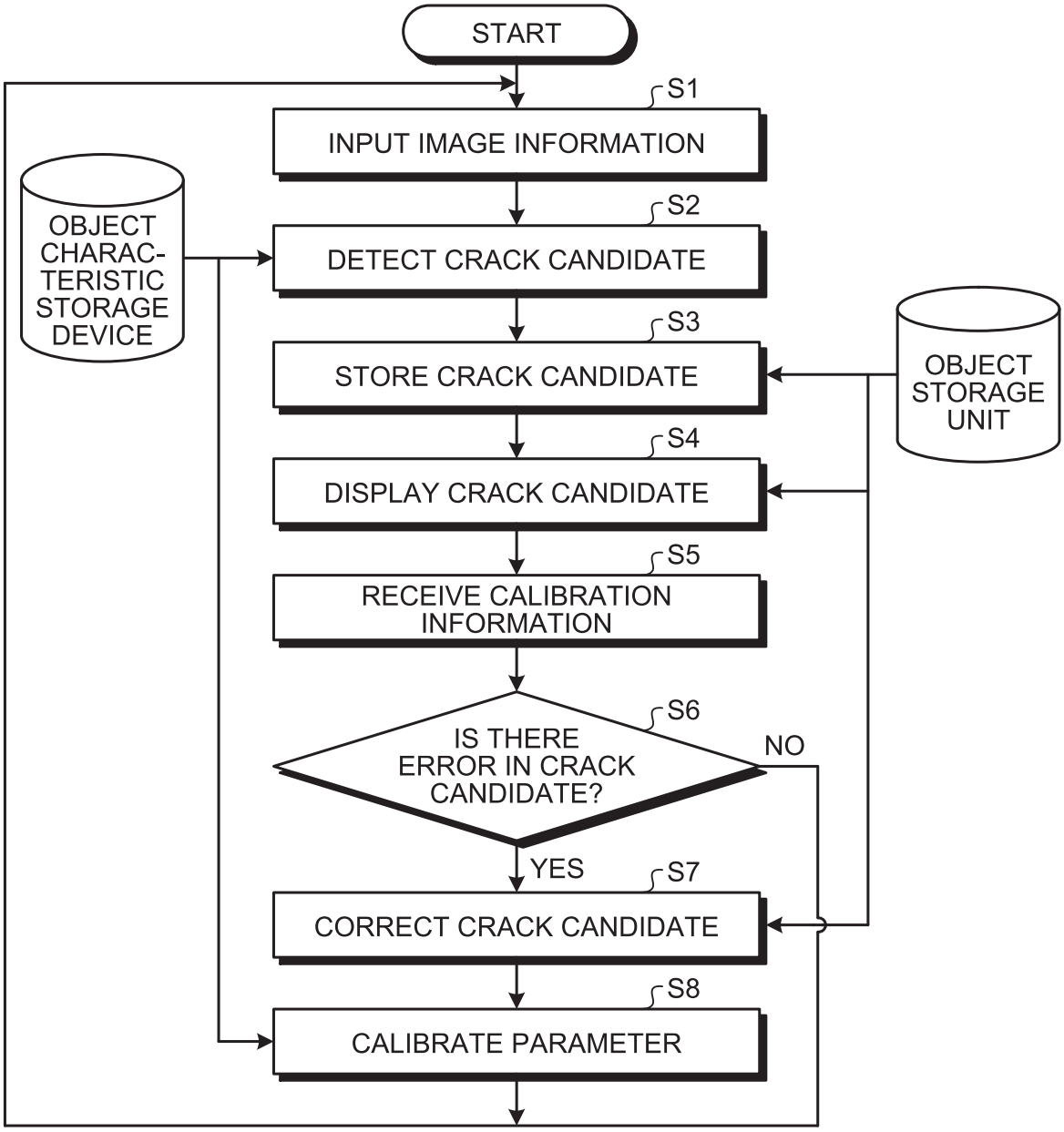

START
S1
INPUT IMAGE INFORMATION
OBJECT CHARAC-TERISTIC STORAGE DEVICE
S2
DETECT CRACK CANDIDATE
S3
STORE CRACK CANDIDATE
OBJECT STORAGE UNIT
S4
DISPLAY CRACK CANDIDATE
S5
RECEIVE CALIBRATION INFORMATION
S6
IS THERE ERROR IN CRACK CANDIDATE?
NO
YES
S7
CORRECT CRACK CANDIDATE
S8
CALIBRATE PARAMETER

FIG.3

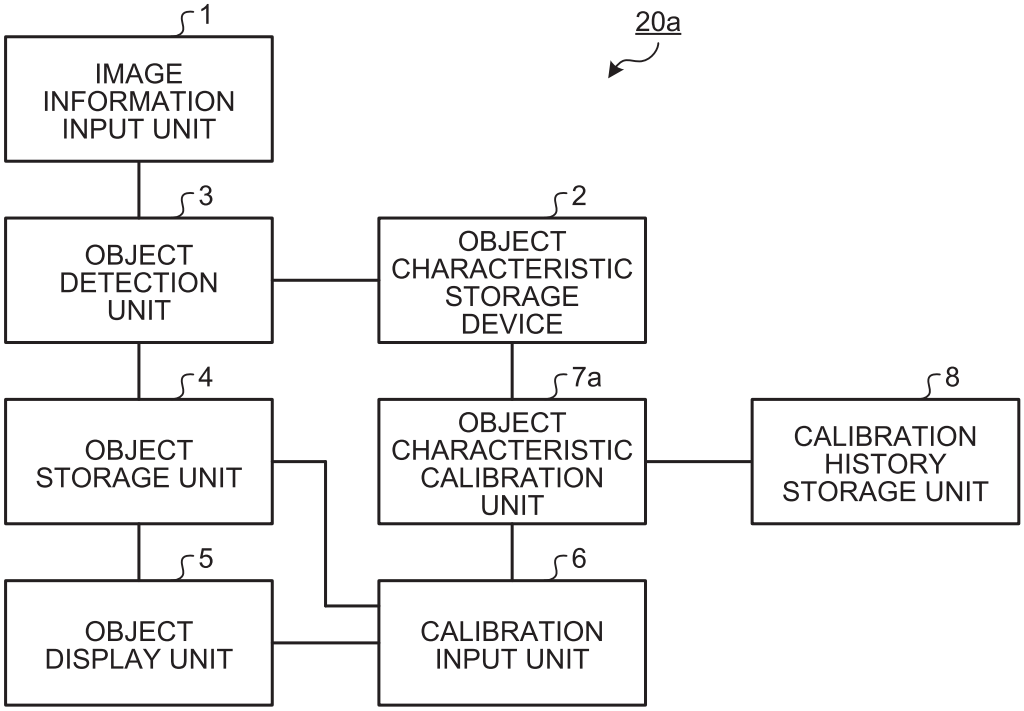

1
IMAGE INFORMATION INPUT UNIT
20a
3
OBJECT DETECTION UNIT
2
OBJECT CHARACTERISTIC STORAGE DEVICE
4
OBJECT STORAGE UNIT
7a
OBJECT CHARACTERISTIC CALIBRATION UNIT
8
CALIBRATION HISTORY STORAGE UNIT
5
OBJECT DISPLAY UNIT
6
CALIBRATION INPUT UNIT

FIG.4

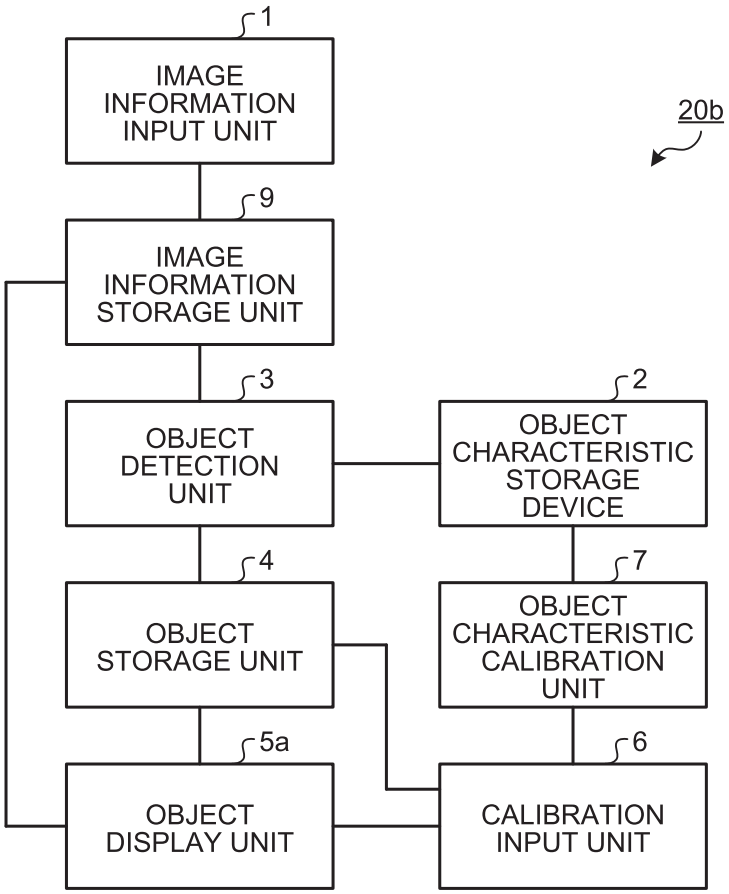

1
IMAGE INFORMATION INPUT UNIT
20b
9
IMAGE INFORMATION STORAGE UNIT
3
OBJECT DETECTION UNIT
2
OBJECT CHARACTERISTIC STORAGE DEVICE
4
OBJECT STORAGE UNIT
7
OBJECT CHARACTERISTIC CALIBRATION UNIT
5a
OBJECT DISPLAY UNIT
6
CALIBRATION INPUT UNIT

FIG.5

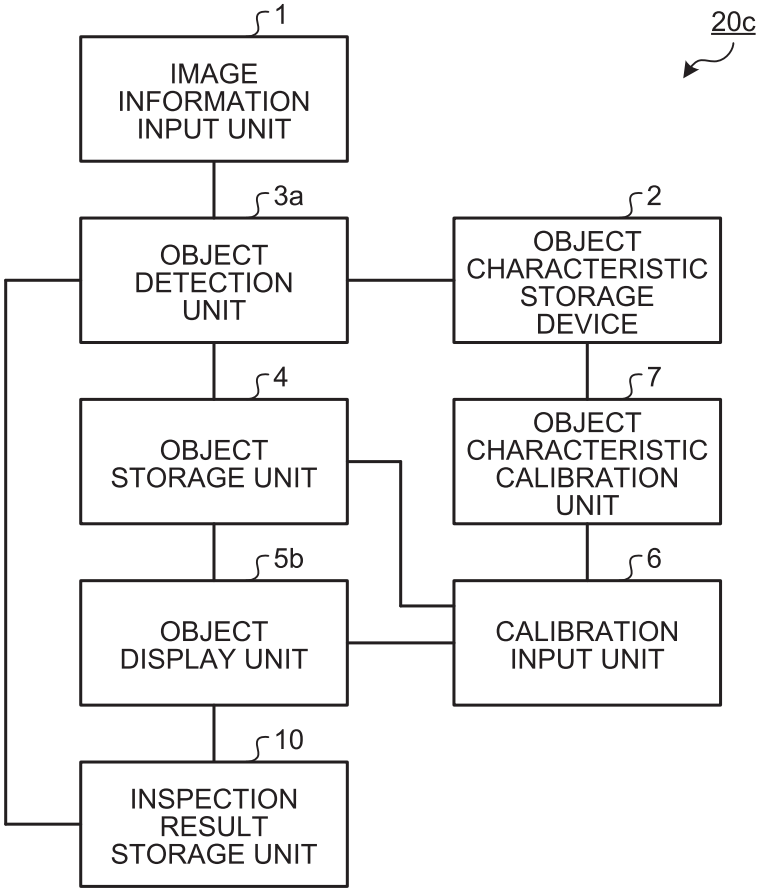

1
IMAGE INFORMATION INPUT UNIT
20c
3a
OBJECT DETECTION UNIT
2
OBJECT CHARACTERISTIC STORAGE DEVICE
4
OBJECT STORAGE UNIT
7
OBJECT CHARACTERISTIC CALIBRATION UNIT
5b
OBJECT DISPLAY UNIT
6
CALIBRATION INPUT UNIT
10
INSPECTION RESULT STORAGE UNIT

FIG.6

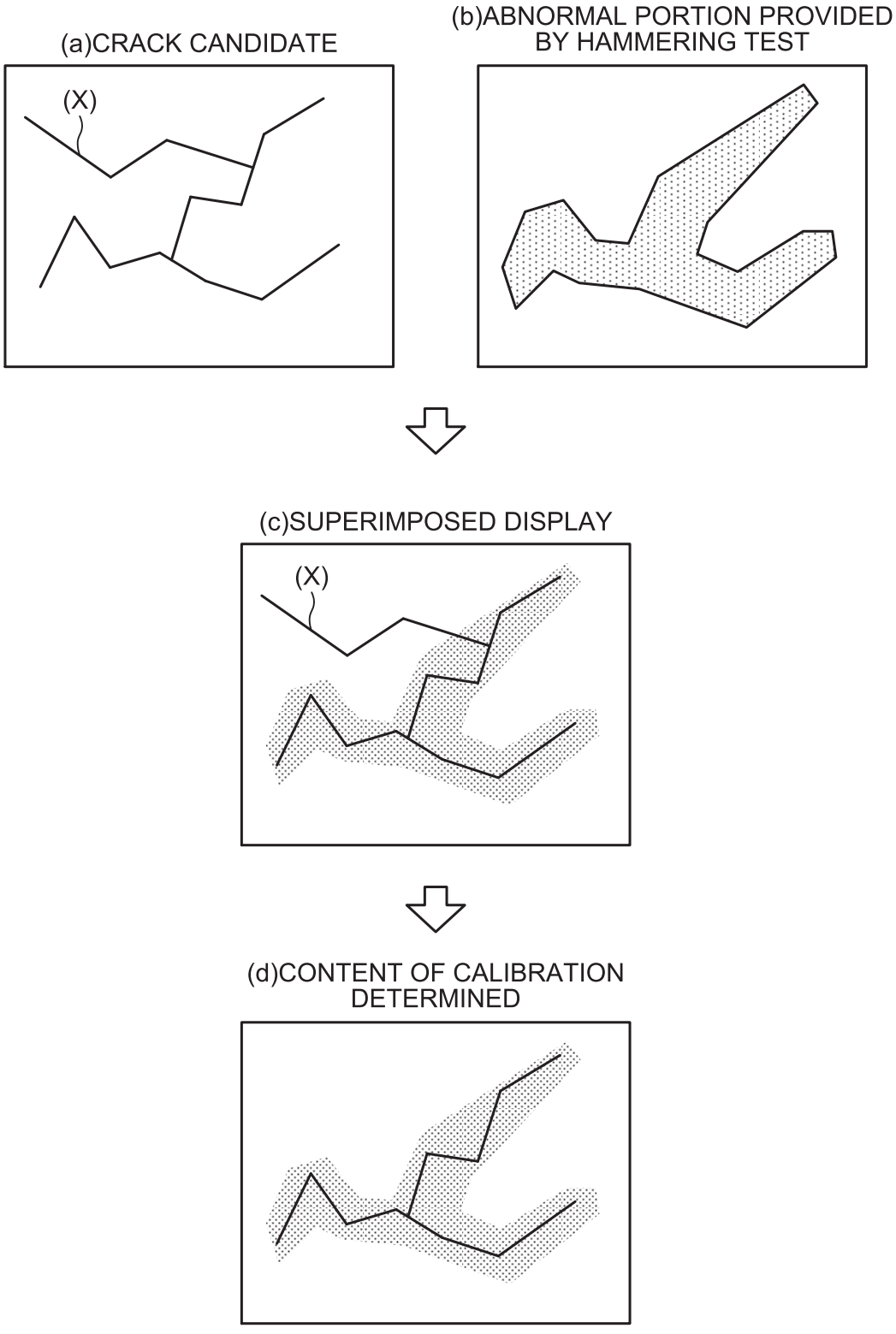

(a)CRACK CANDIDATE
(X)
(b)ABNORMAL PORTION PROVIDED BY HAMMERING TEST
(c)SUPERIMPOSED DISPLAY
(X)
(d)CONTENT OF CALIBRATION DETERMINED

FIG.7

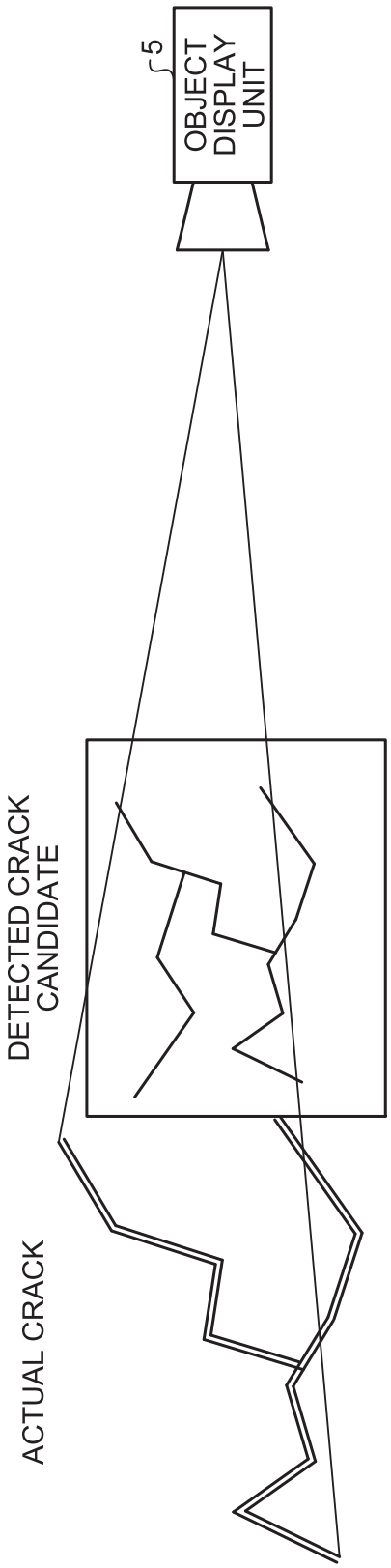

5
OBJECT DISPLAY UNIT
DETECTED CRACK CANDIDATE
ACTUAL CRACK

FIG.8

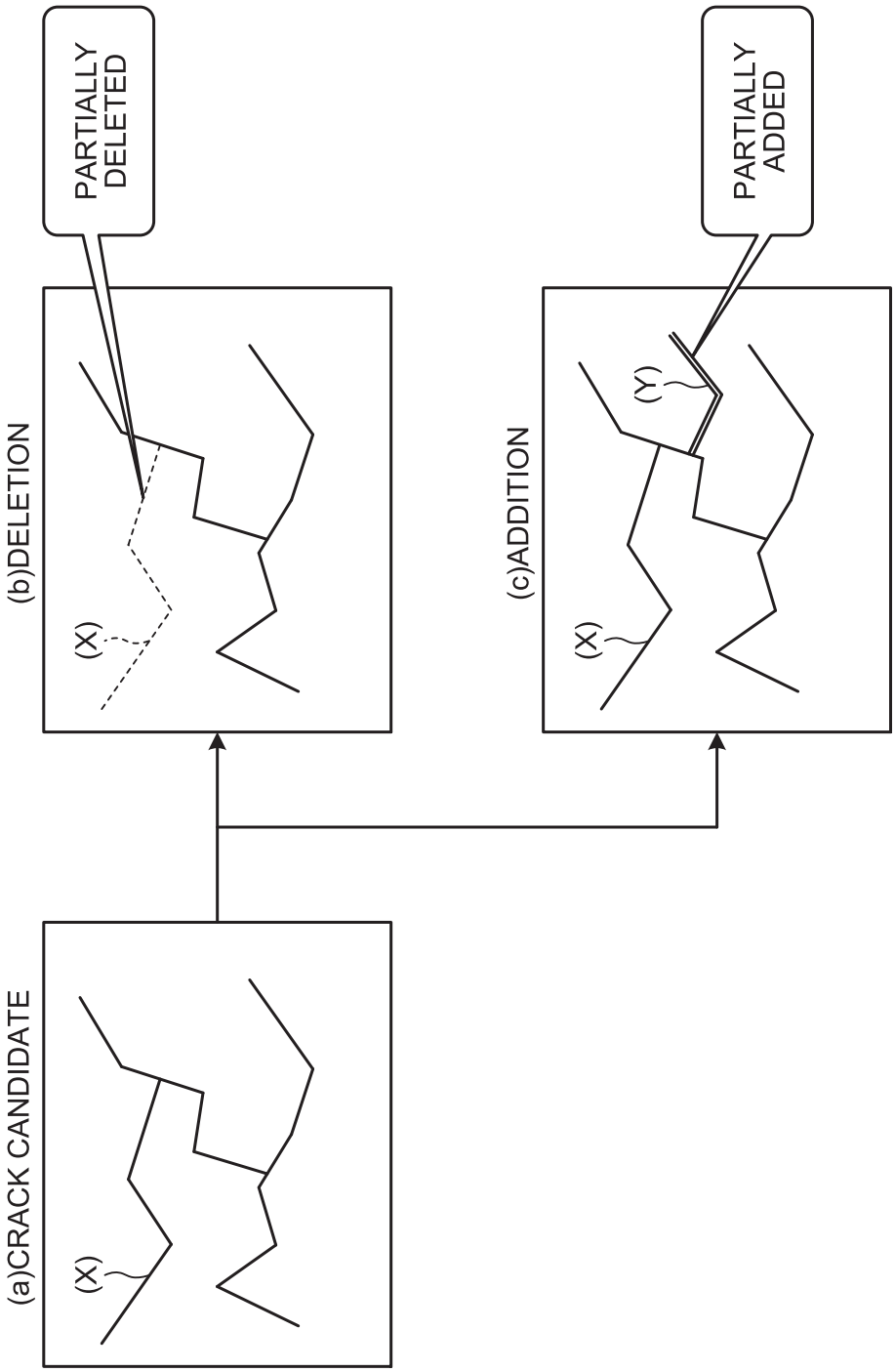

(a)CRACK CANDIDATE
(X)
(b)DELETION
(X)
PARTIALLY DELETED
(c)ADDITION
(X)
(Y)
PARTIALLY ADDED

FIG.9

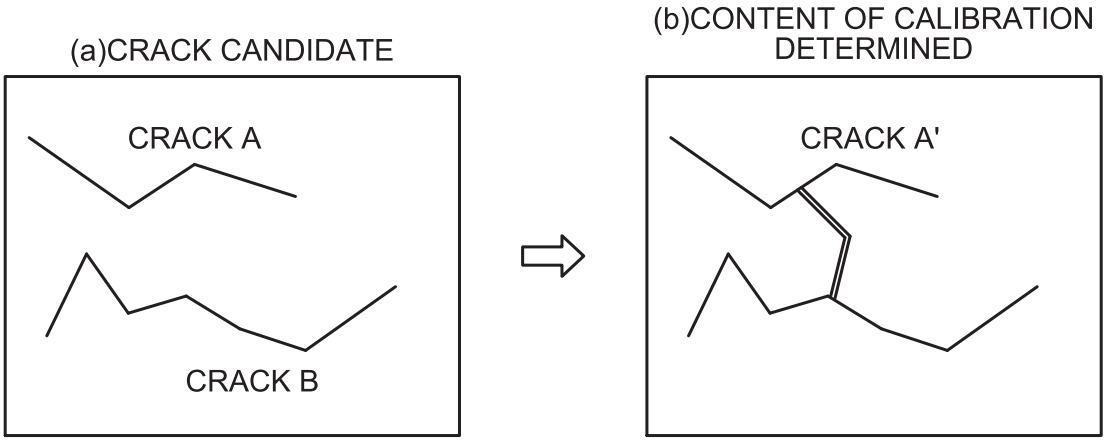
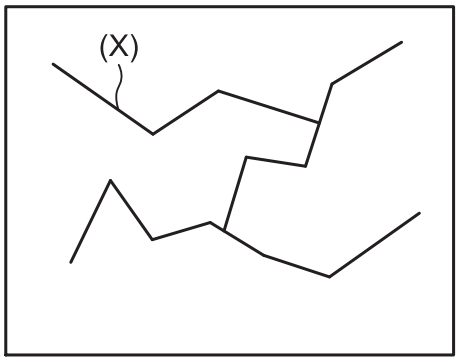
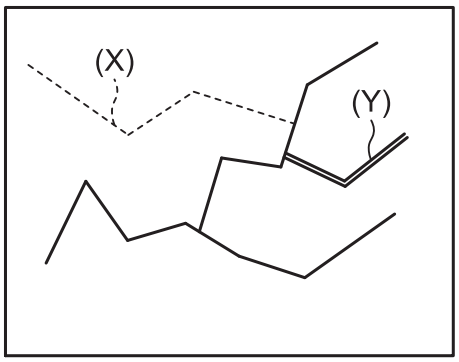

(a)CRACK CANDIDATE
CRACK A
CRACK B
(b)CONTENT OF CALIBRATION DETERMINED
CRACK A'

FIG.10

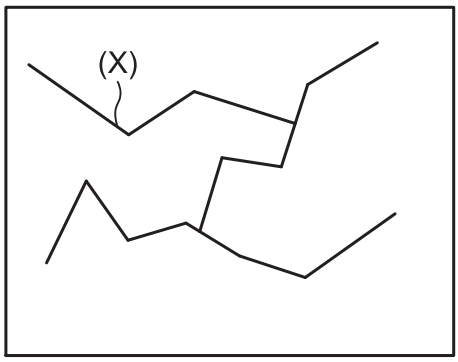
(a)CRACK CANDIDATE



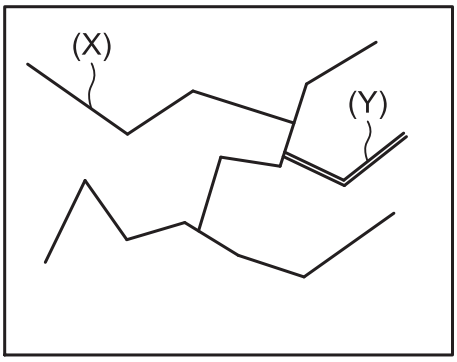
(b)CALIBRATION BY USER A



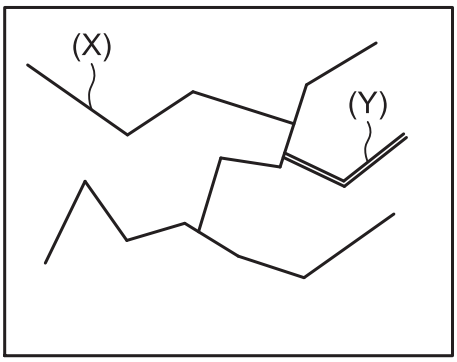
(c)CALIBRATION BY USER B



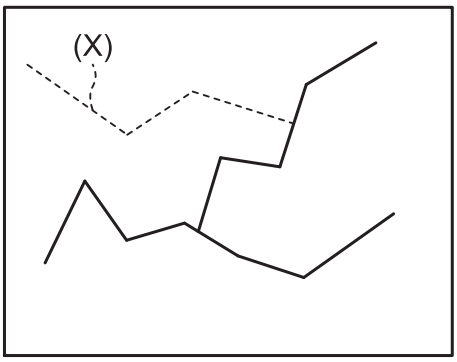
(d)CALIBRATION BY USER C



(e)CALIBRATION BY USER D



(f)CALIBRATION BY USER E



(g)CONTENT OF CALIBRATION DETERMINED

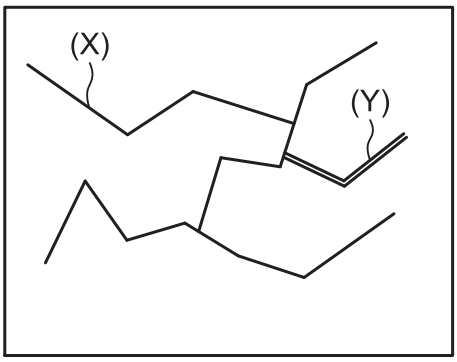


FIG.11

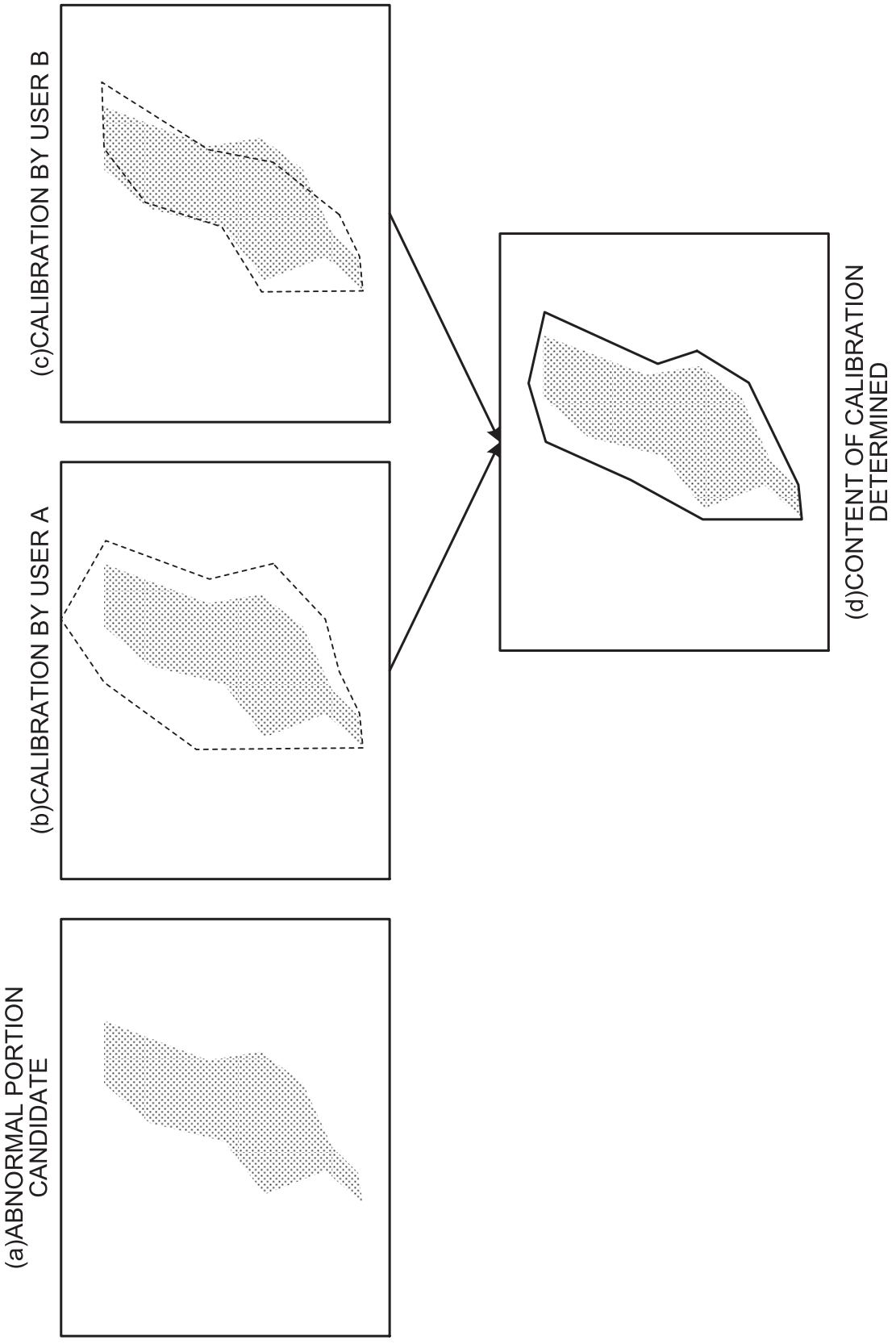

(a)ABNORMAL PORTION CANDIDATE
(b)CALIBRATION BY USER A
(c)CALIBRATION BY USER B
(d)CONTENT OF CALIBRATION DETERMINED

FIG.12

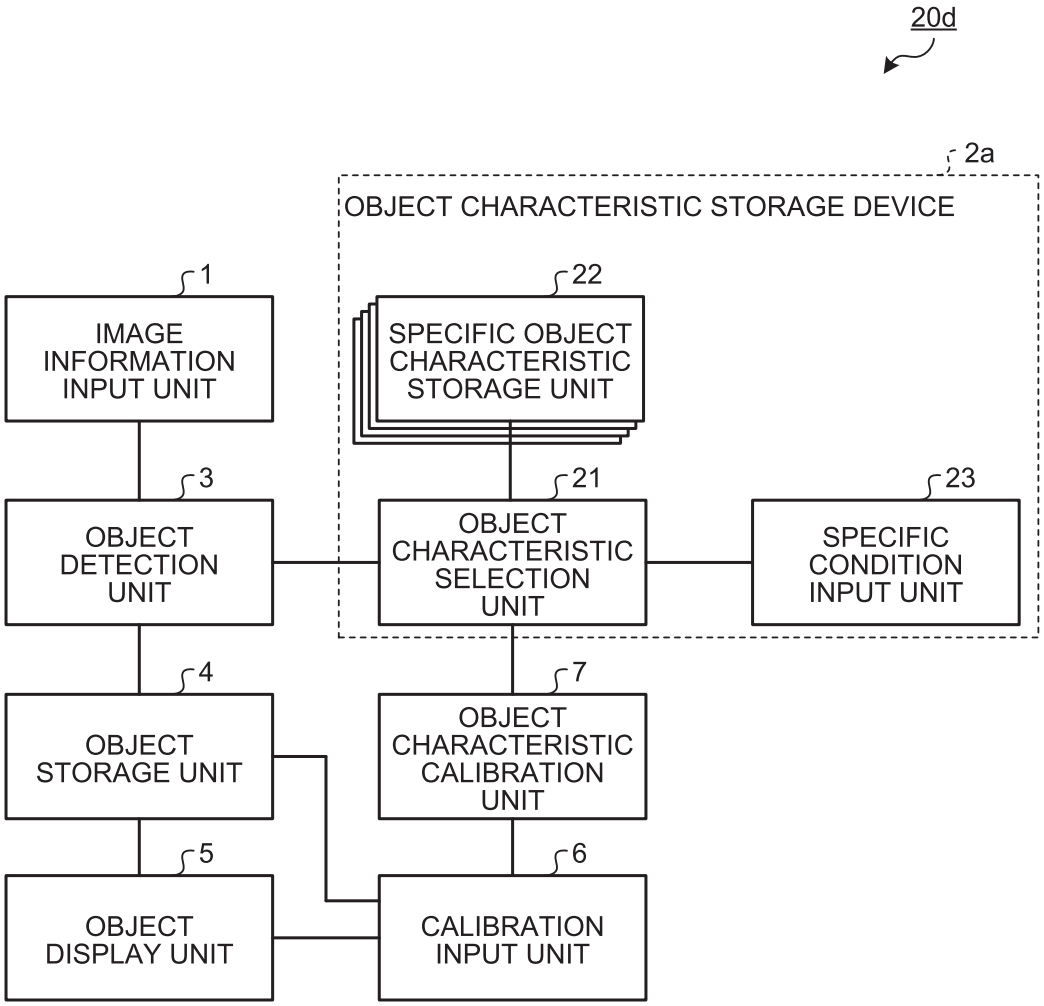

20d
2a
OBJECT CHARACTERISTIC STORAGE DEVICE
1
IMAGE INFORMATION INPUT UNIT
22
SPECIFIC OBJECT CHARACTERISTIC STORAGE UNIT
3
OBJECT DETECTION UNIT
21
OBJECT CHARACTERISTIC SELECTION UNIT
23
SPECIFIC CONDITION INPUT UNIT
4
OBJECT STORAGE UNIT
7
OBJECT CHARACTERISTIC CALIBRATION UNIT
5
OBJECT DISPLAY UNIT
6
CALIBRATION INPUT UNIT

FIG.13

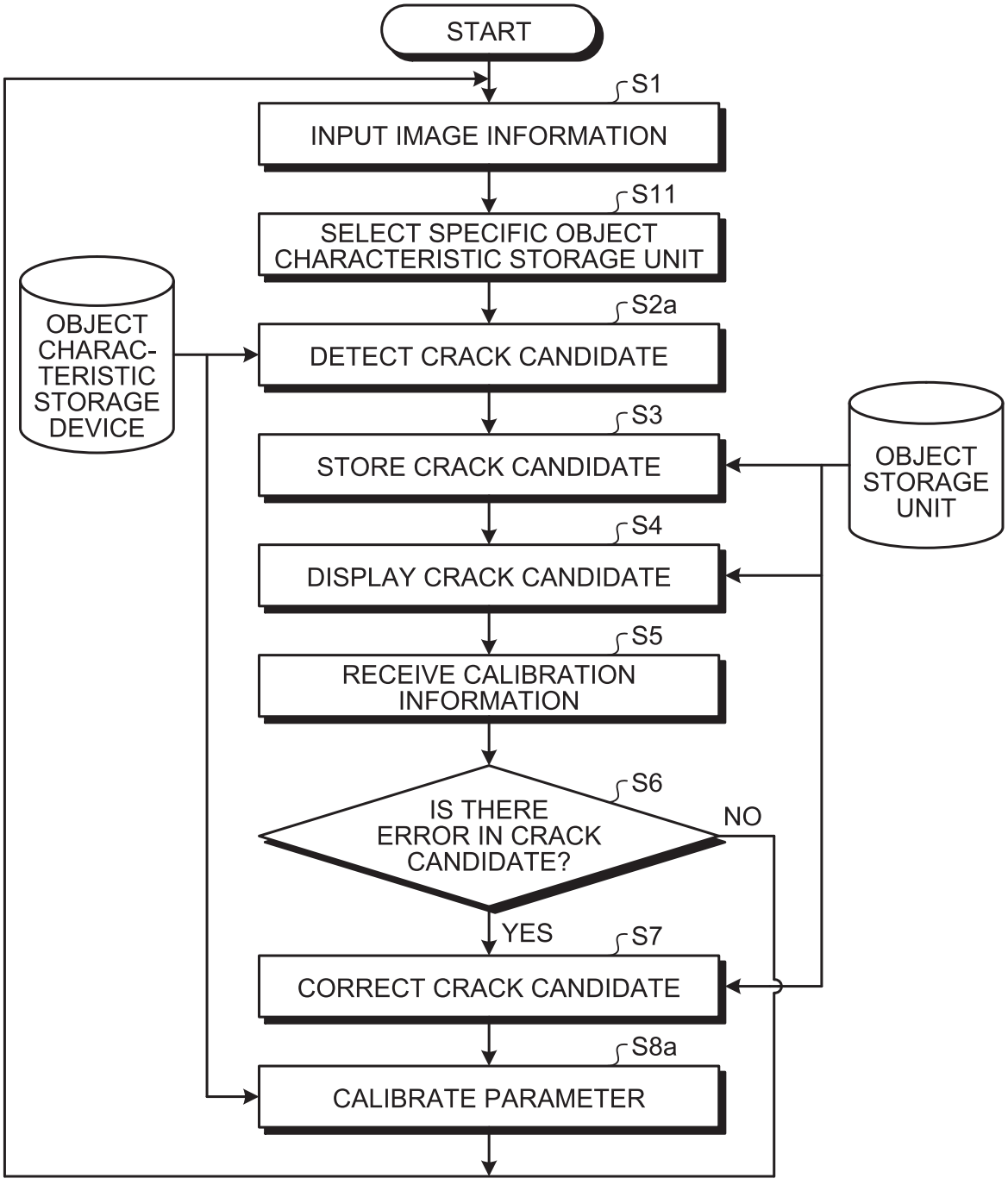

START
S1
INPUT IMAGE INFORMATION
S11
SELECT SPECIFIC OBJECT CHARACTERISTIC STORAGE UNIT
OBJECT CHARAC-TERISTIC STORAGE DEVICE
S2a
DETECT CRACK CANDIDATE
S3
STORE CRACK CANDIDATE
OBJECT STORAGE UNIT
S4
DISPLAY CRACK CANDIDATE
S5
RECEIVE CALIBRATION INFORMATION
S6
IS THERE ERROR IN CRACK CANDIDATE?
NO
YES
S7
CORRECT CRACK CANDIDATE
S8a
CALIBRATE PARAMETER

FIG.14

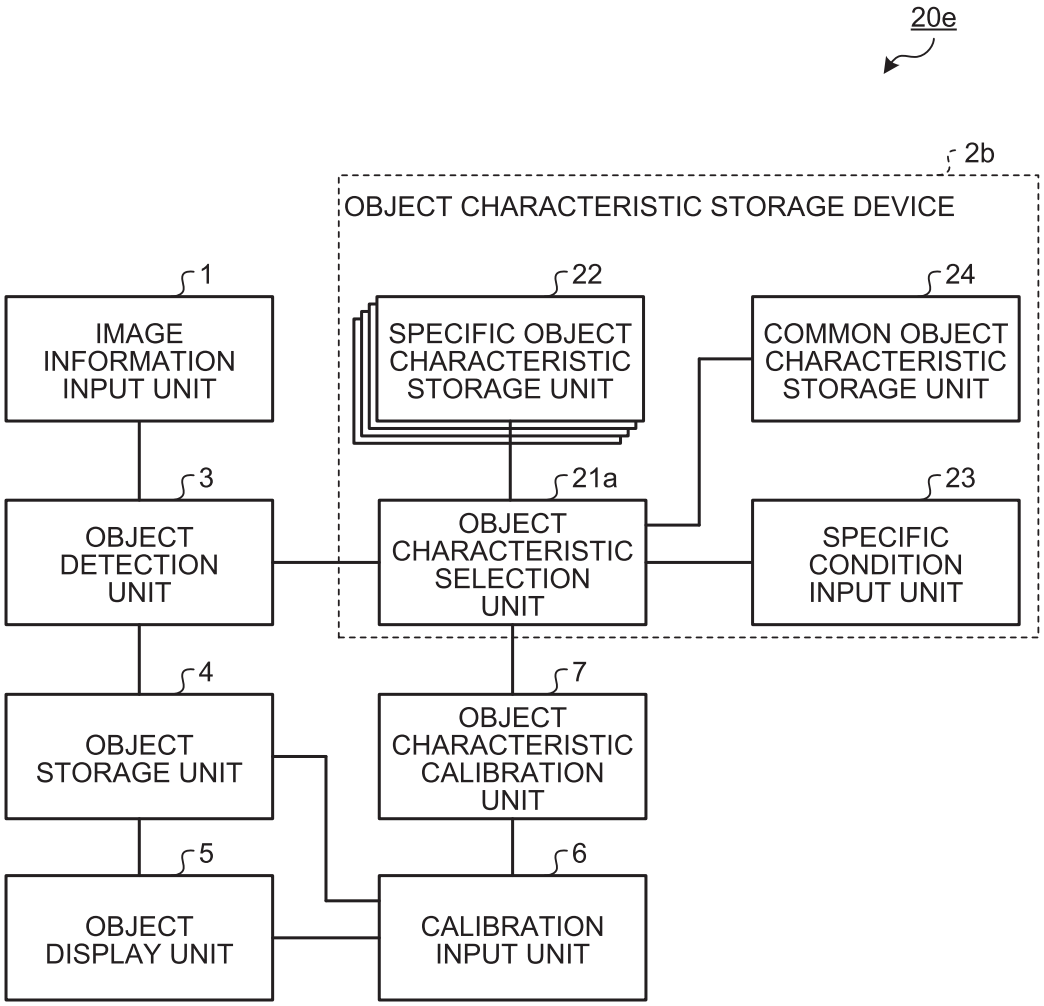
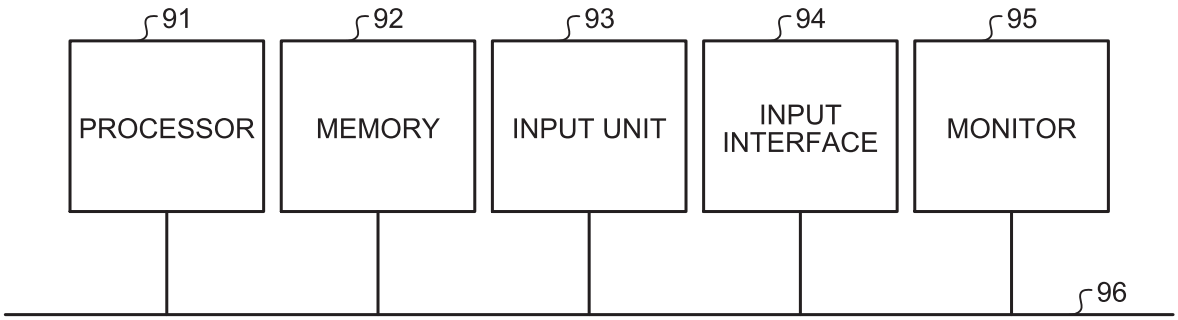

20e
2b
OBJECT CHARACTERISTIC STORAGE DEVICE
1
IMAGE INFORMATION INPUT UNIT
22
SPECIFIC OBJECT CHARACTERISTIC STORAGE UNIT
24
COMMON OBJECT CHARACTERISTIC STORAGE UNIT
3
OBJECT DETECTION UNIT
21a
OBJECT CHARACTERISTIC SELECTION UNIT
23
SPECIFIC CONDITION INPUT UNIT
4
OBJECT STORAGE UNIT
7
OBJECT CHARACTERISTIC CALIBRATION UNIT
5
OBJECT DISPLAY UNIT
6
CALIBRATION INPUT UNIT

FIG.15


91
92
93
94
95
PROCESSOR
MEMORY
INPUT UNIT
INPUT INTERFACE
MONITOR
96