G00002

163163

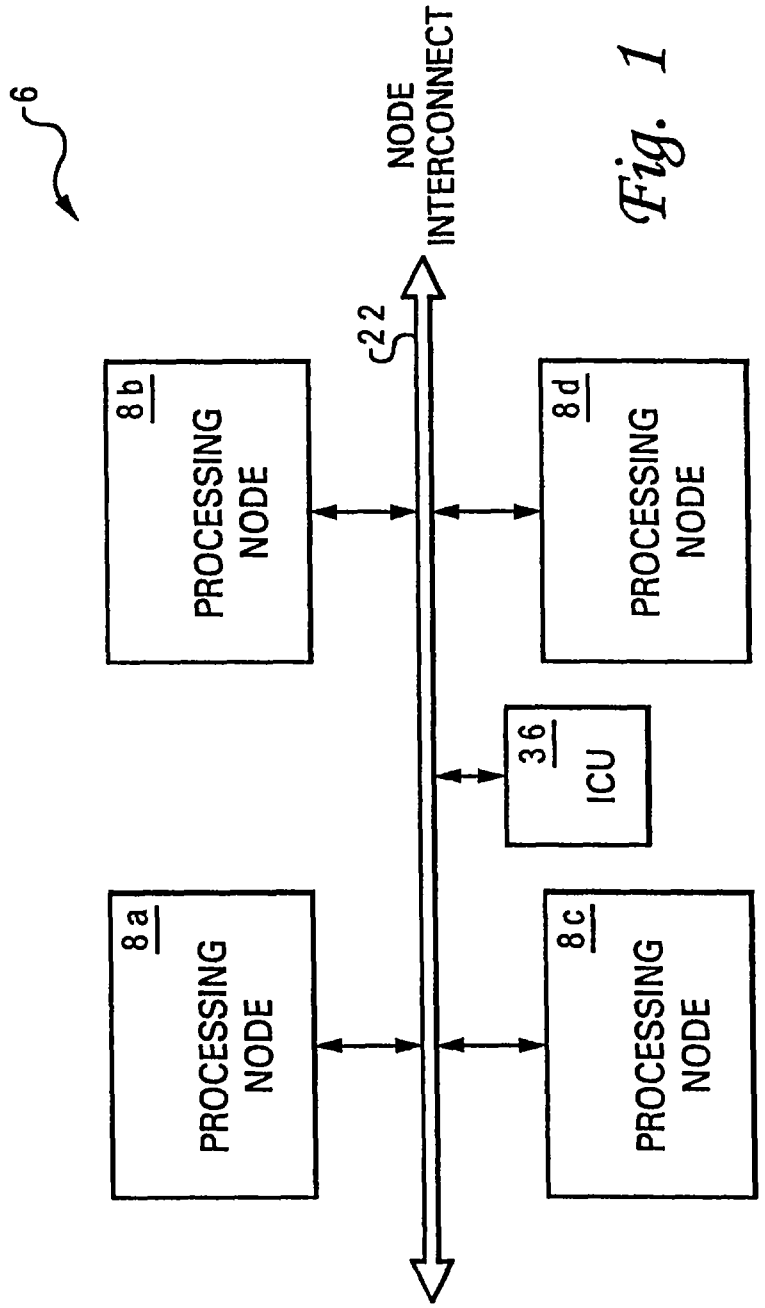


Fig. 1

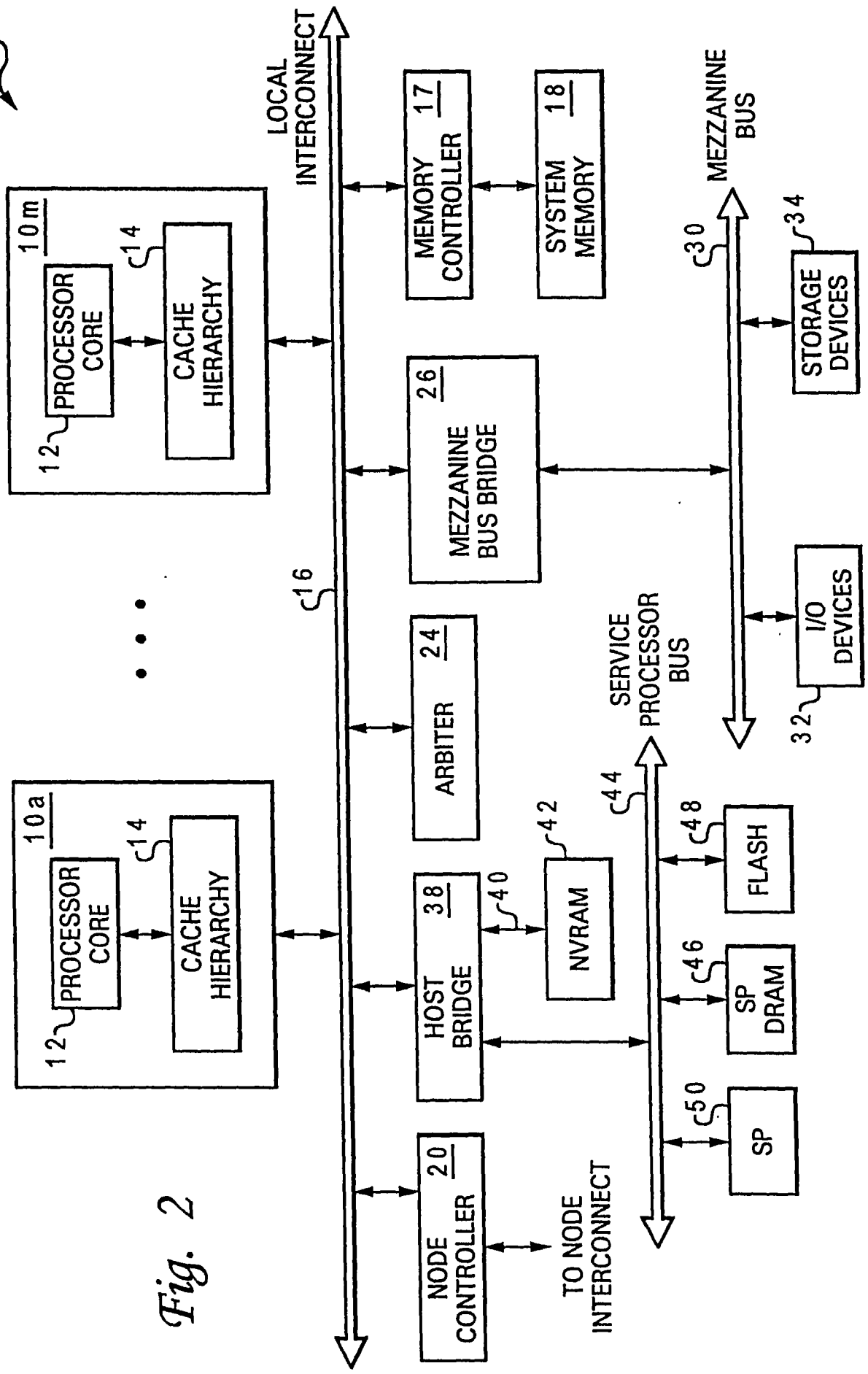

8
LOCAL INTERCONNECT
10m
PROCESSOR CORE
12
14
CACHE HIERARCHY
MEMORY CONTROLLER
17
SYSTEM MEMORY
18
MEZZANINE BUS
30
34
STORAGE DEVICES
26
MEZZANINE BUS BRIDGE
16
ARBITER
24
10a
PROCESSOR CORE
12
14
CACHE HIERARCHY
SERVICE PROCESSOR BUS
44
I/O DEVICES
32
42
NVRAM
48
FLASH
HOST BRIDGE
38
40
46
SP DRAM
50
SP
NODE CONTROLLER
20
TO NODE INTERCONNECT

Fig. 2

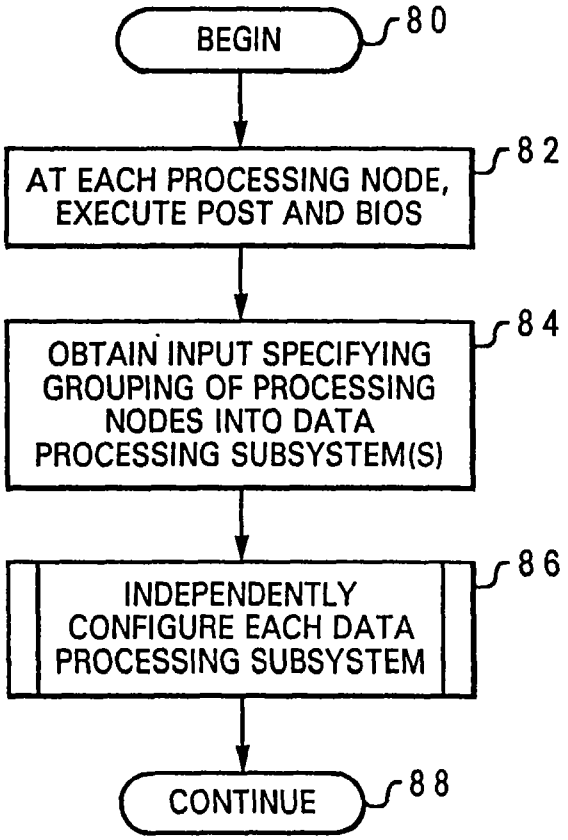

BEGIN
80
AT EACH PROCESSING NODE, EXECUTE POST AND BIOS
82
OBTAIN INPUT SPECIFYING GROUPING OF PROCESSING NODES INTO DATA PROCESSING SUBSYSTEM(S)
84
INDEPENDENTLY CONFIGURE EACH DATA PROCESSING SUBSYSTEM
86
CONTINUE
88

Fig. 3A

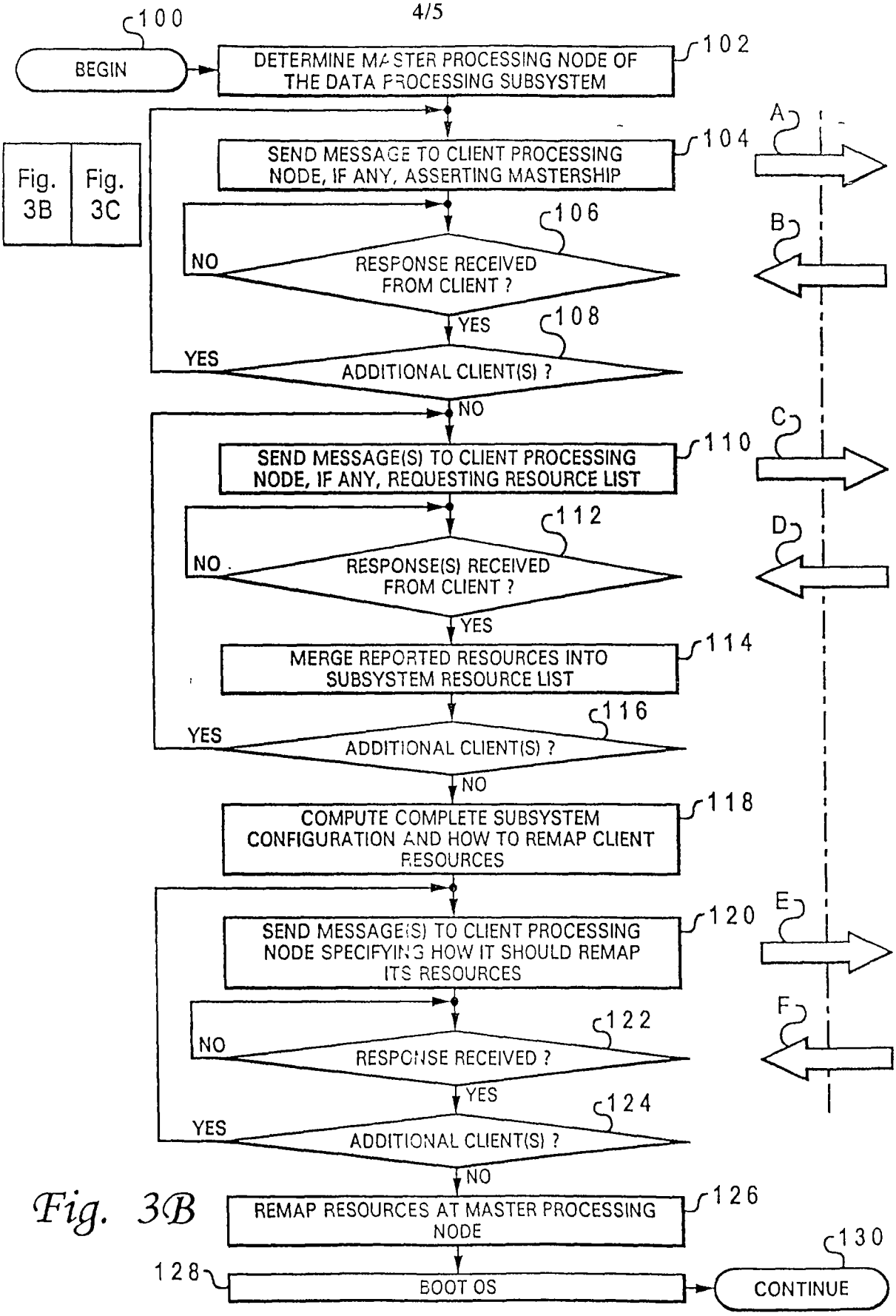

100
BEGIN
102
DETERMINE MASTER PROCESSING NODE OF THE DATA PROCESSING SUBSYSTEM
104
SEND MESSAGE TO CLIENT PROCESSING NODE, IF ANY, ASSERTING MASTERSHIP
106
NO
RESPONSE RECEIVED FROM CLIENT ?
YES
108
YES
ADDITIONAL CLIENT(S) ?
NO
110
SEND MESSAGE(S) TO CLIENT PROCESSING NODE, IF ANY, REQUESTING RESOURCE LIST
112
NO
RESPONSE(S) RECEIVED FROM CLIENT ?
YES
114
MERGE REPORTED RESOURCES INTO SUBSYSTEM RESOURCE LIST
116
YES
ADDITIONAL CLIENT(S) ?
NO
118
COMPUTE COMPLETE SUBSYSTEM CONFIGURATION AND HOW TO REMAP CLIENT RESOURCES
120
SEND MESSAGE(S) TO CLIENT PROCESSING NODE SPECIFYING HOW IT SHOULD REMAP ITS RESOURCES
122
NO
RESPONSE RECEIVED ?
YES
124
YES
ADDITIONAL CLIENT(S) ?
NO
126
REMAP RESOURCES AT MASTER PROCESSING NODE
128
BOOT OS
130
CONTINUE
A
B
C
D
E
F
Fig. 3B
Fig. 3C

Fig. 3B

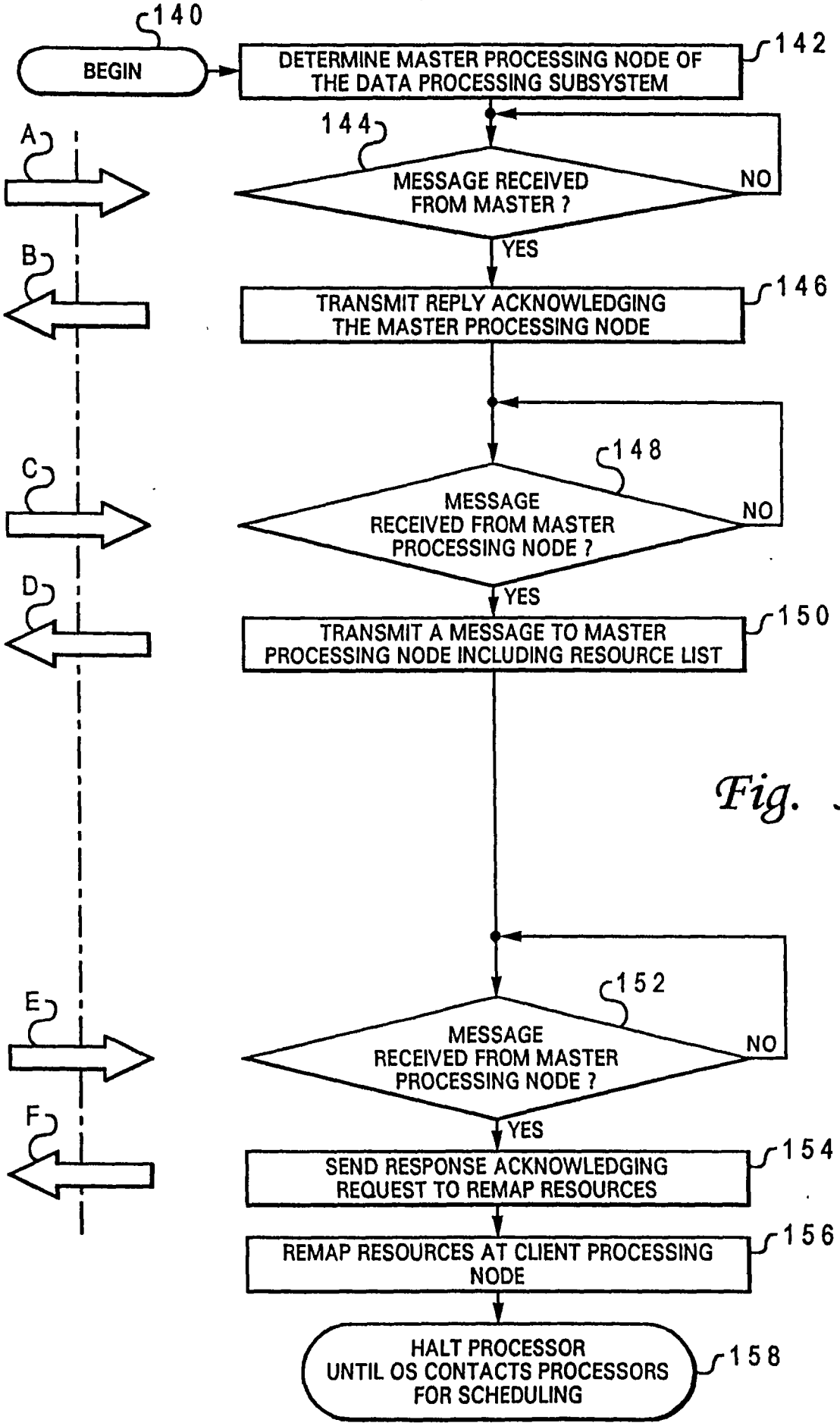

140
BEGIN
142
DETERMINE MASTER PROCESSING NODE OF THE DATA PROCESSING SUBSYSTEM
144
MESSAGE RECEIVED FROM MASTER ?
NO
YES
146
TRANSMIT REPLY ACKNOWLEDGING THE MASTER PROCESSING NODE
148
MESSAGE RECEIVED FROM MASTER PROCESSING NODE ?
NO
YES
150
TRANSMIT A MESSAGE TO MASTER PROCESSING NODE INCLUDING RESOURCE LIST
152
MESSAGE RECEIVED FROM MASTER PROCESSING NODE ?
NO
YES
154
SEND RESPONSE ACKNOWLEDGING REQUEST TO REMAP RESOURCES
156
REMAP RESOURCES AT CLIENT PROCESSING NODE
158
HALT PROCESSOR UNTIL OS CONTACTS PROCESSORS FOR SCHEDULING
A
B
C
D
E
F

Fig. 3C