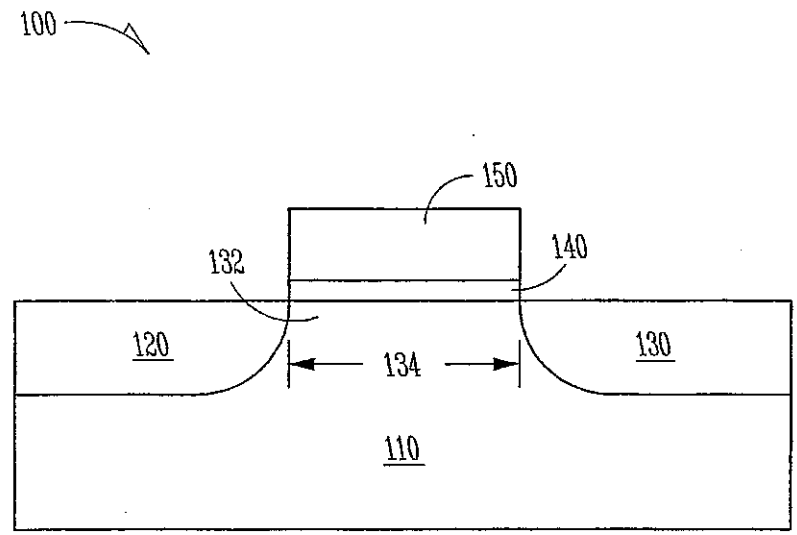


Fig.1

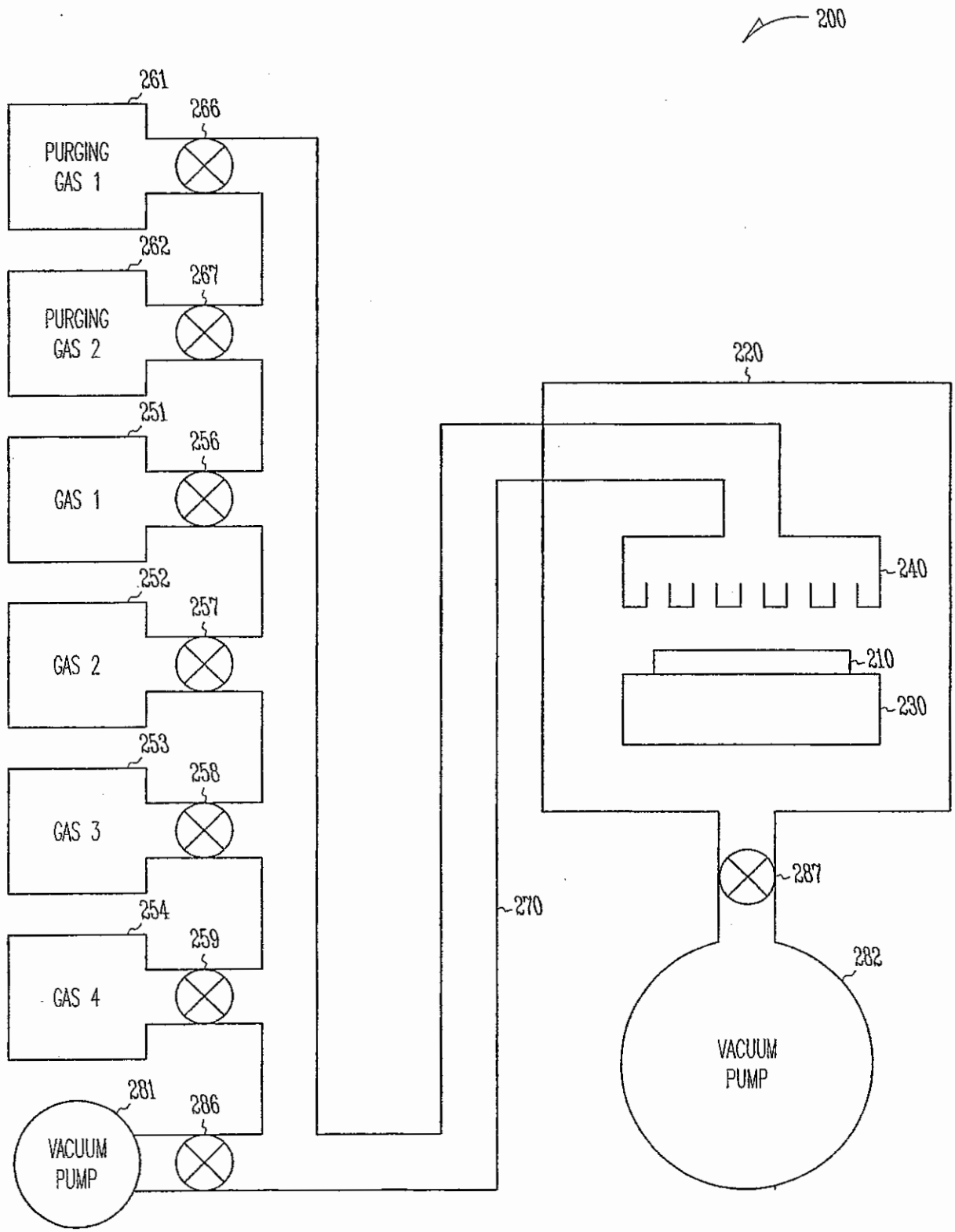

200
261
266
PURGING GAS 1
262
267
PURGING GAS 2
251
256
GAS 1
252
257
GAS 2
253
258
GAS 3
254
259
GAS 4
281
286
VACUUM PUMP
220
240
210
230
270
287
282
VACUUM PUMP

Fig.2A

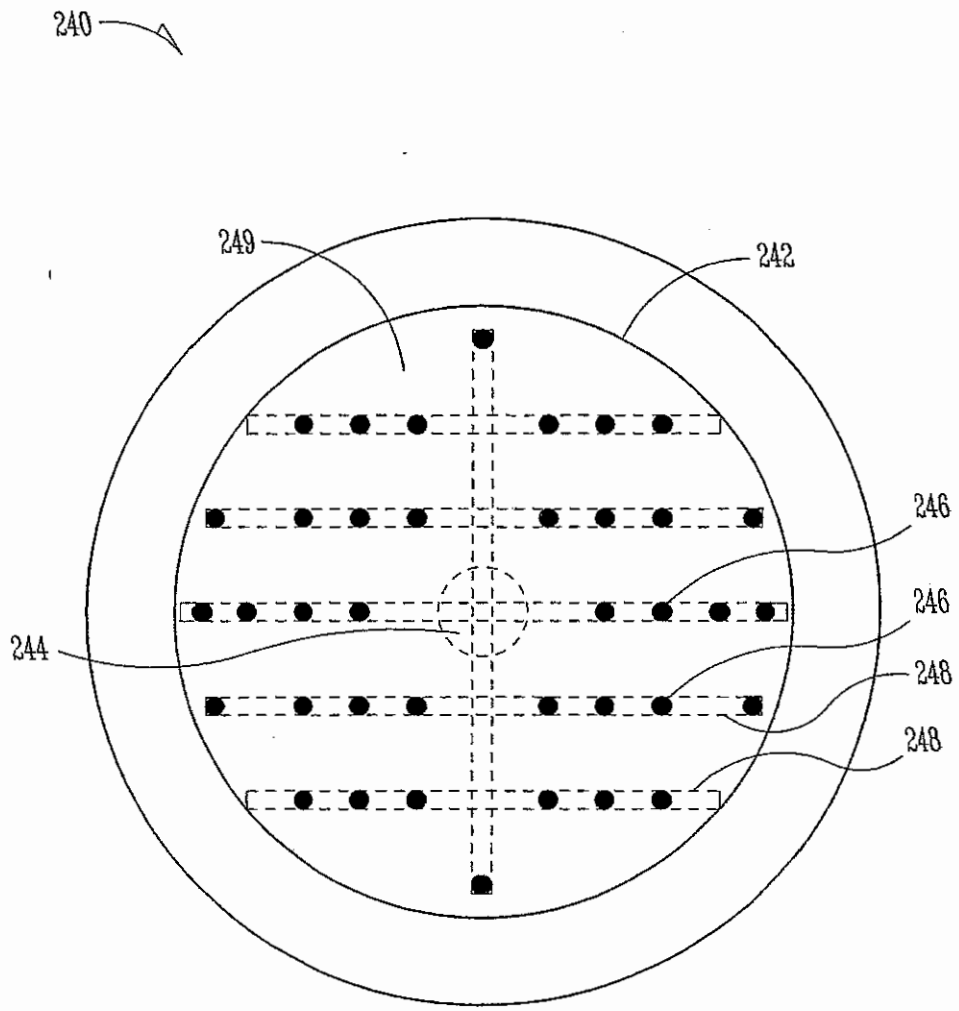


Fig.2B

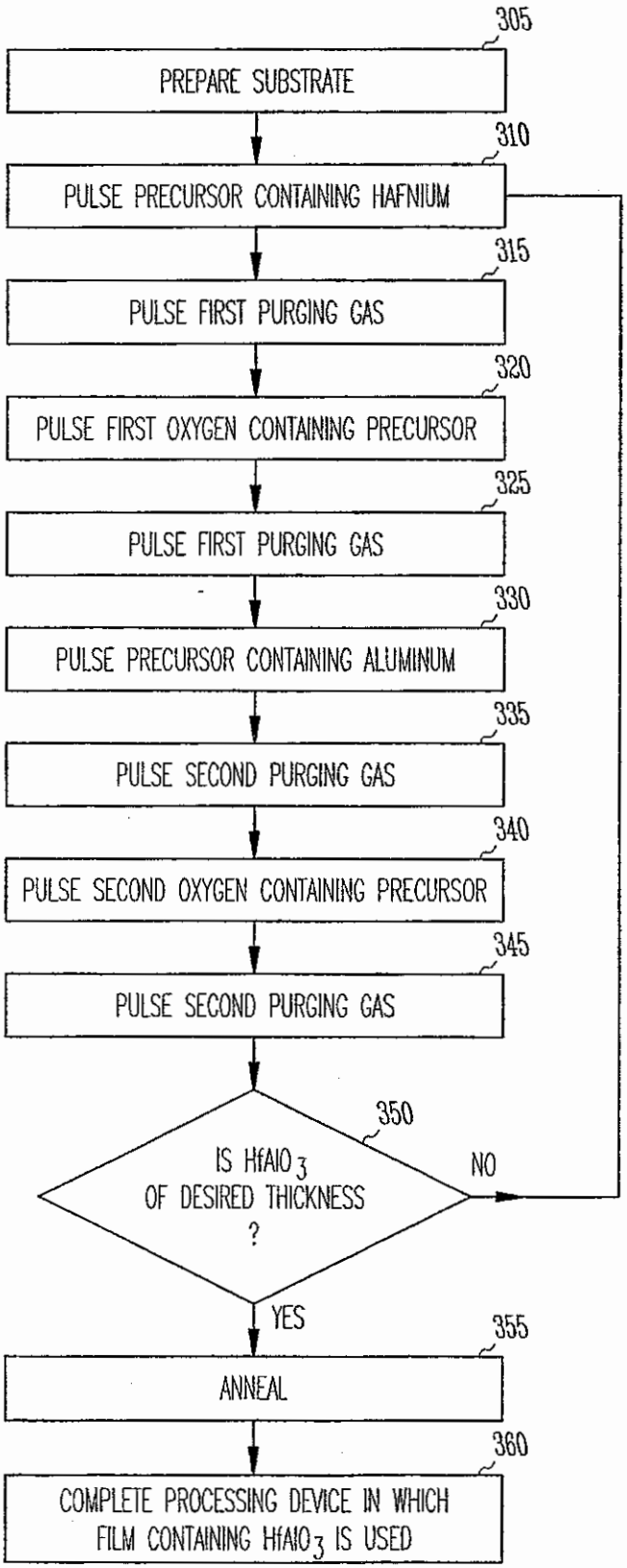

305
PREPARE SUBSTRATE
310
PULSE PRECURSOR CONTAINING HAFNIUM
315
PULSE FIRST PURGING GAS
320
PULSE FIRST OXYGEN CONTAINING PRECURSOR
325
PULSE FIRST PURGING GAS
330
PULSE PRECURSOR CONTAINING ALUMINUM
335
PULSE SECOND PURGING GAS
340
PULSE SECOND OXYGEN CONTAINING PRECURSOR
345
PULSE SECOND PURGING GAS
350
IS HfAlO3 OF DESIRED THICKNESS ?
NO
YES
355
ANNEAL
360
COMPLETE PROCESSING DEVICE IN WHICH FILM CONTAINING HfAlO3 IS USED

Fig.3

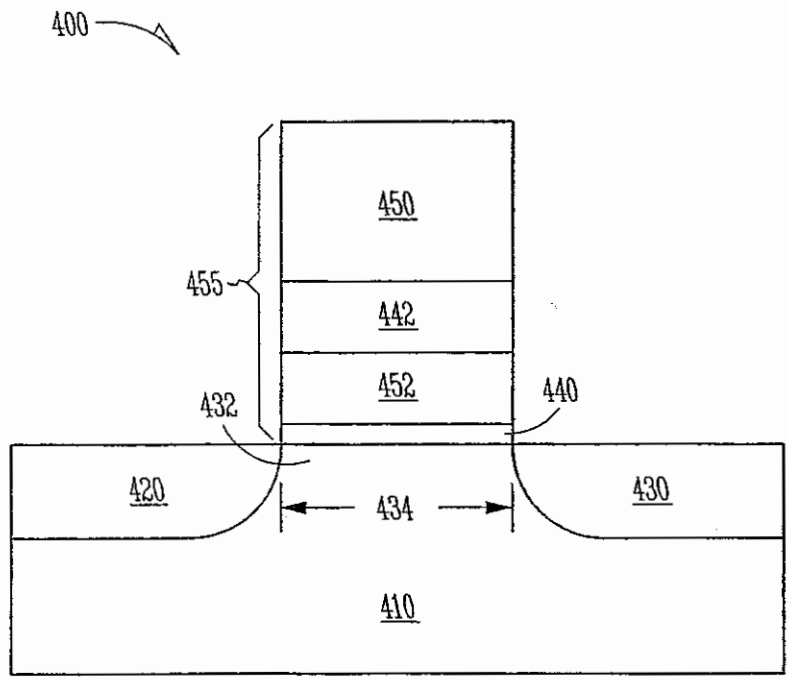


Fig.4

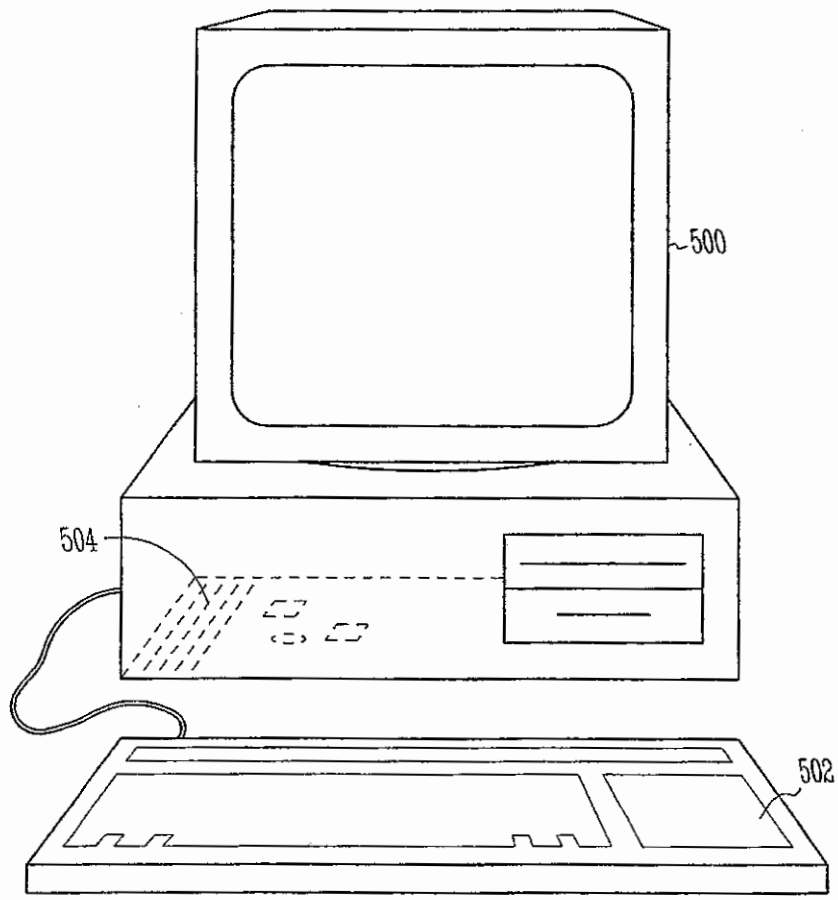


Fig.5

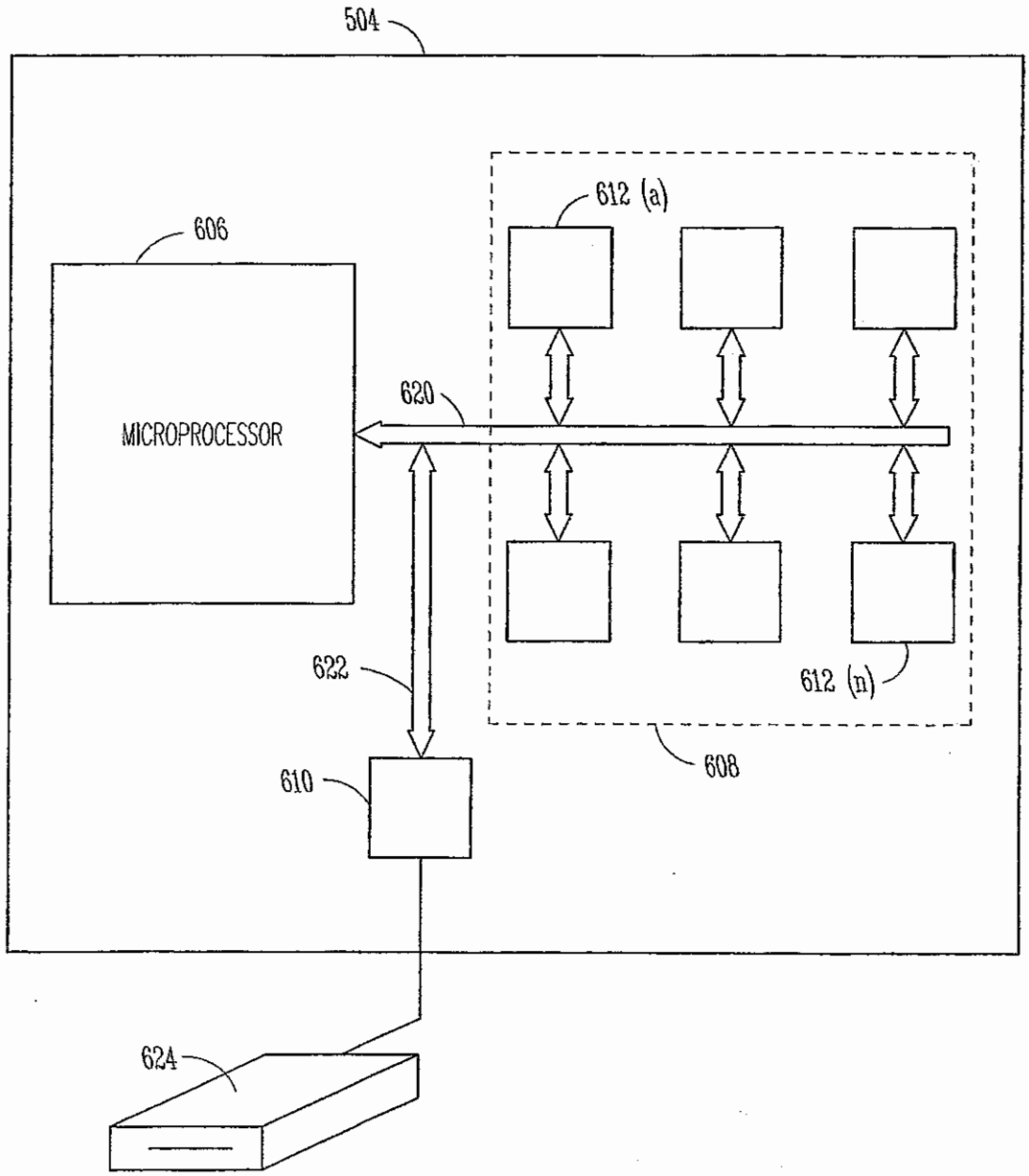


Fig.6

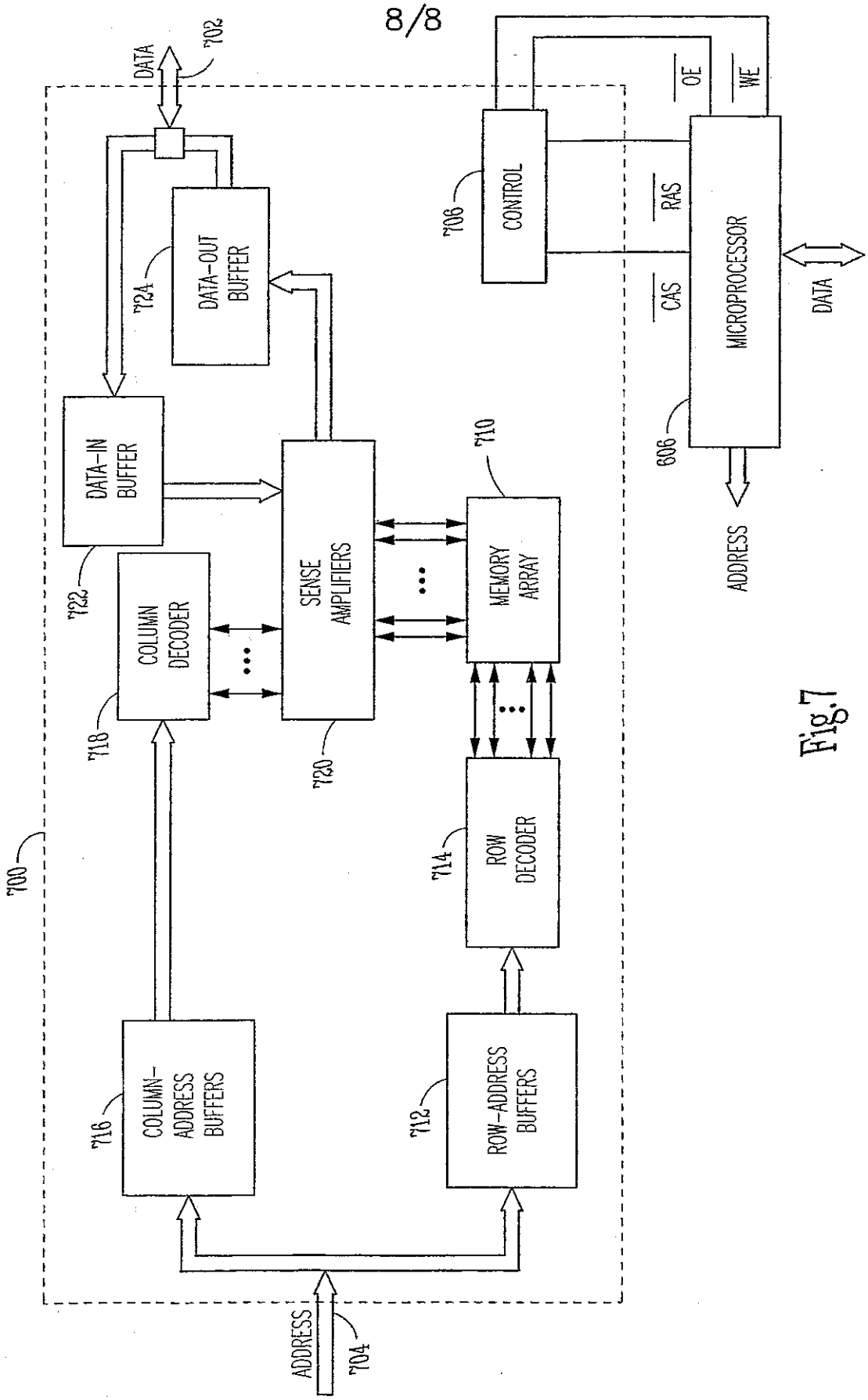

DATA
702
DATA-OUT BUFFER
724
DATA-IN BUFFER
722
COLUMN DECODER
718
SENSE AMPLIFIERS
720
MEMORY ARRAY
710
ROW DECODER
714
COLUMN-ADDRESS BUFFERS
716
ROW-ADDRESS BUFFERS
712
ADDRESS
704
700
CONTROL
706
OE
WE
RAS
CAS
MICROPROCESSOR
606
DATA
ADDRESS

Fig. 7