

Fig. 1

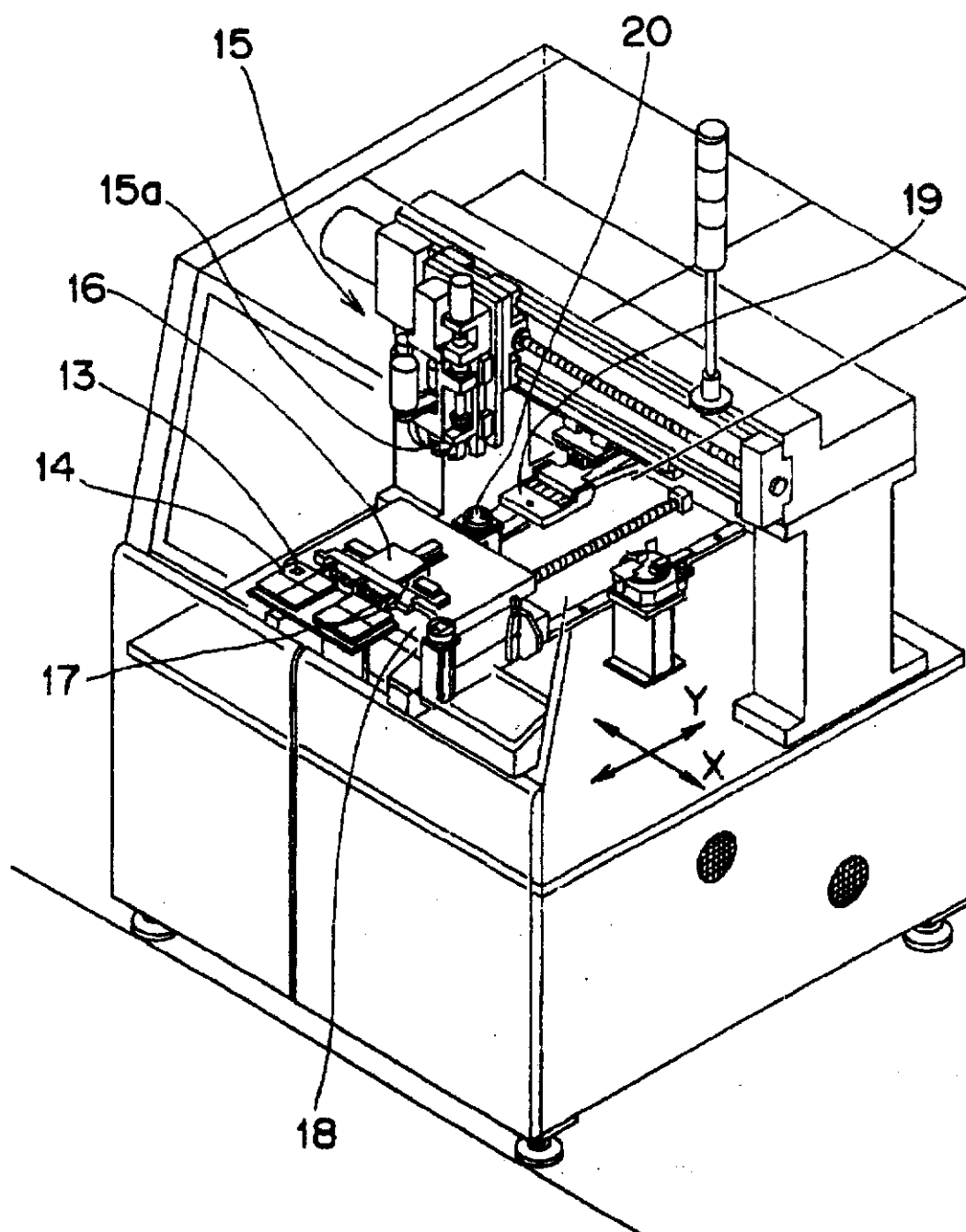


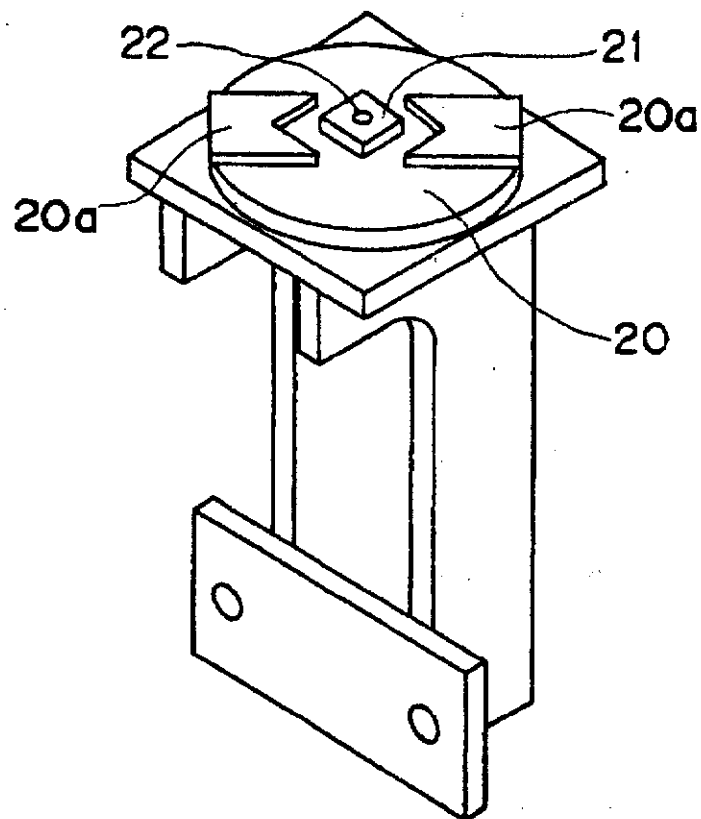
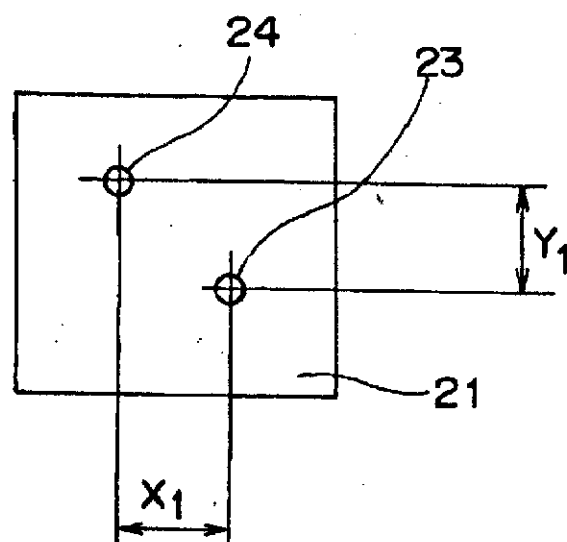
Fig. 2*Fig. 3*

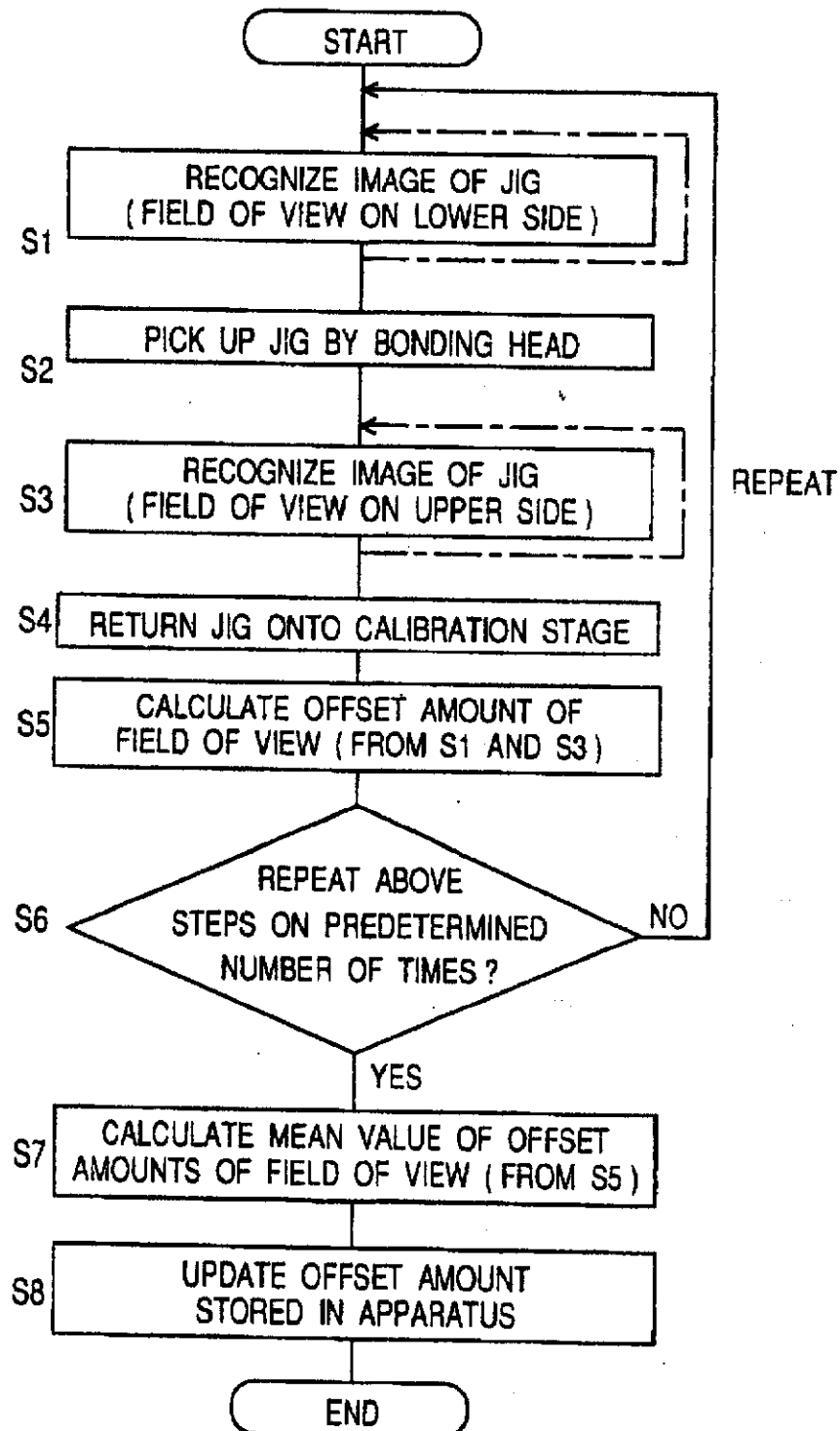
Fig.4

Fig.5

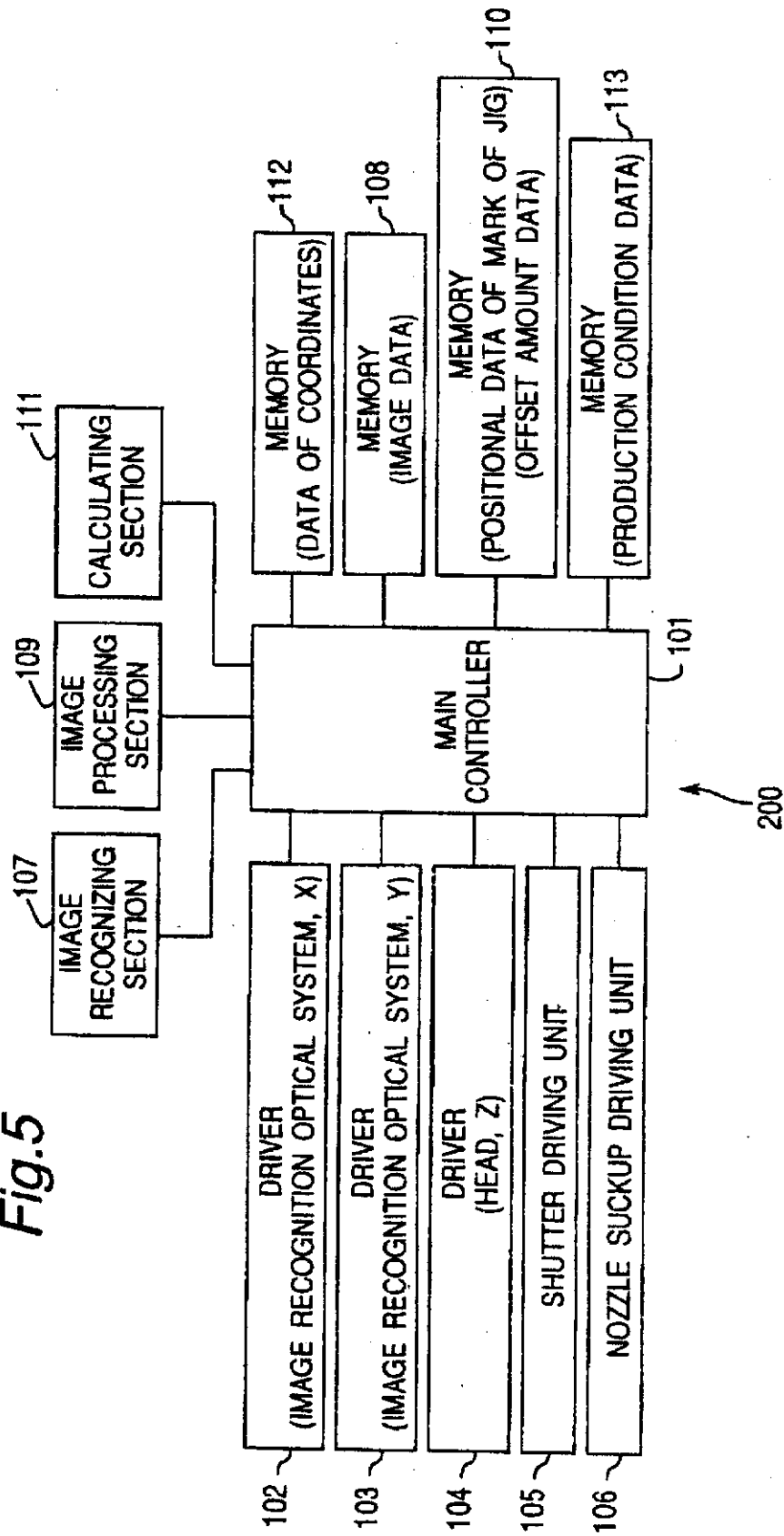


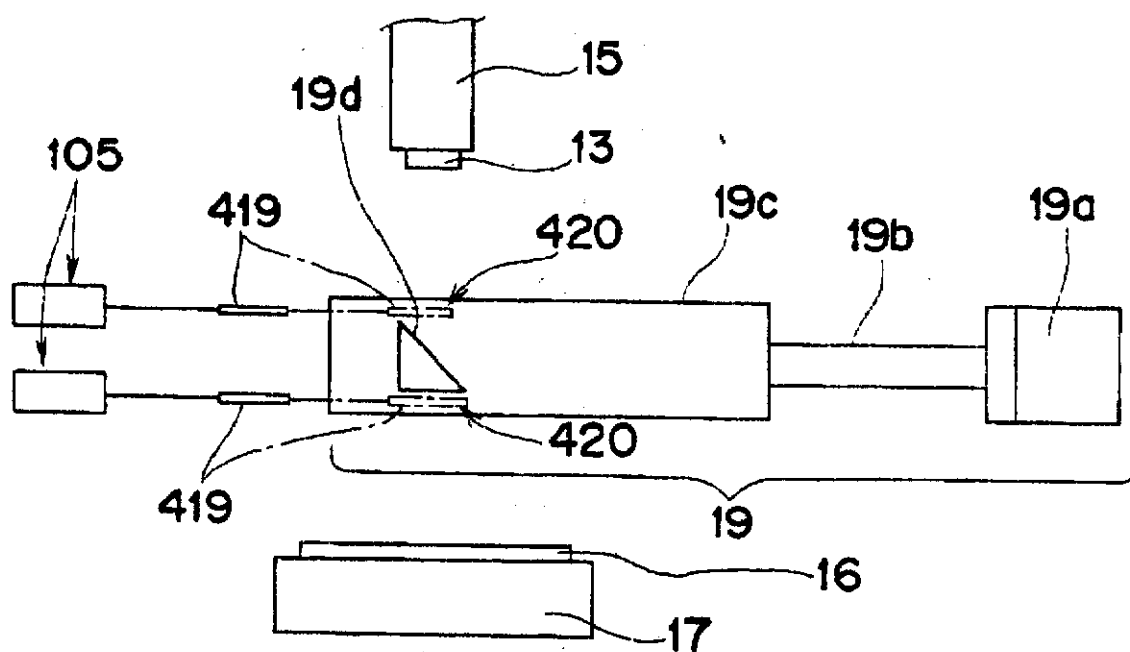
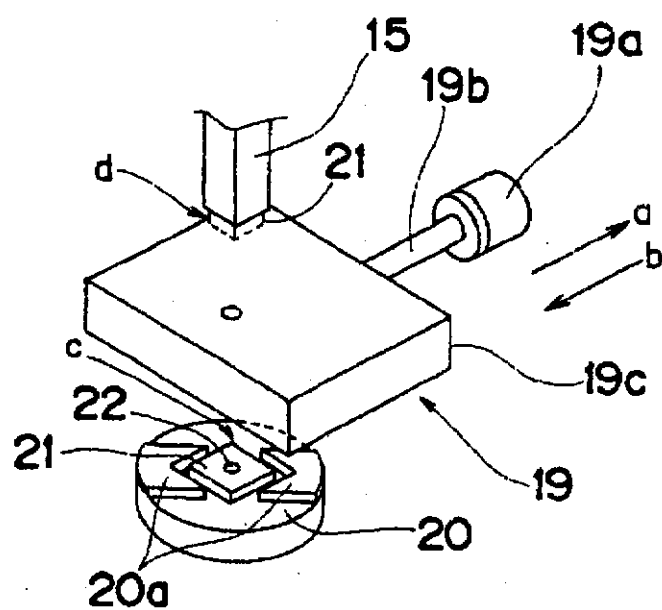
Fig. 6*Fig. 7*

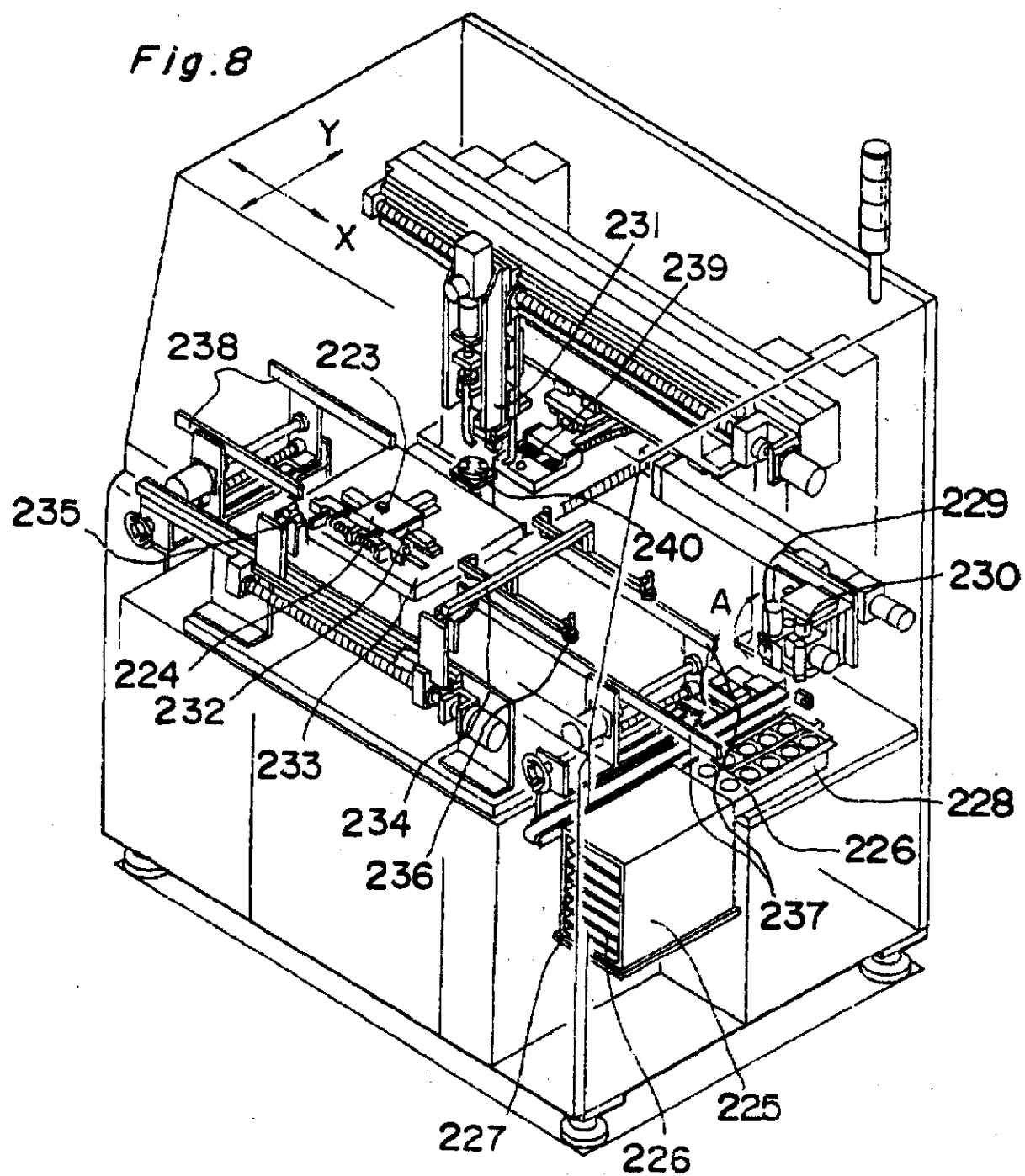
Fig. 8

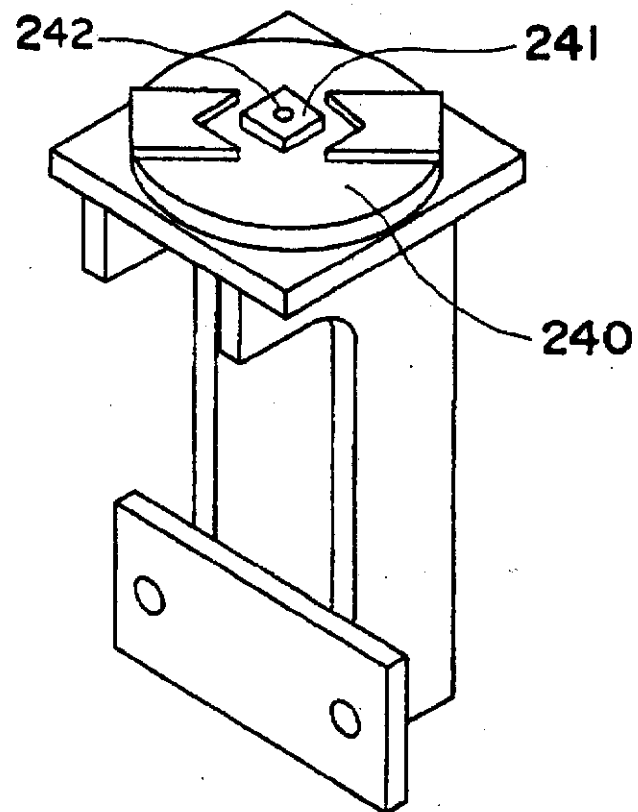
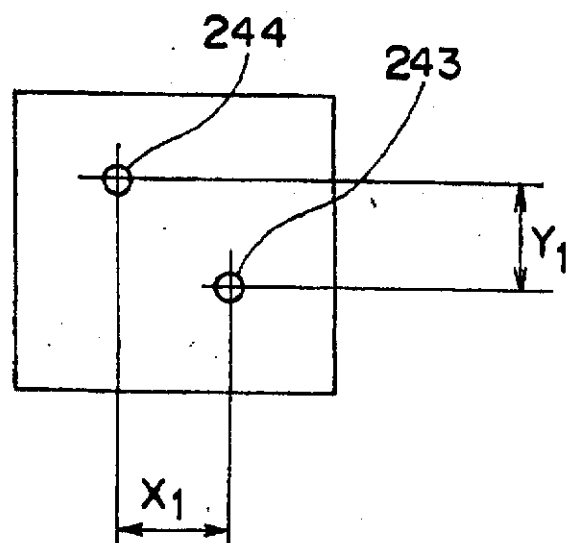
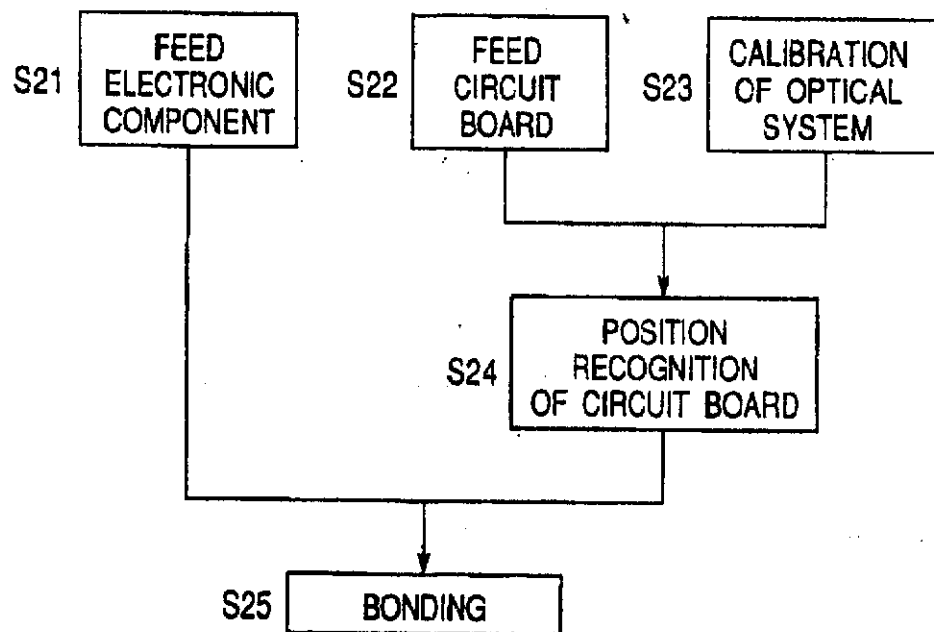
Fig. 9**Fig. 10**

Fig.11

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graph TD
    S50[S50 PICKUP OF CIRCUIT BOARD BY CONVEYOR ARM]
    S51[S51 MOVE CONVEYOR ARM IN X DIRECTION]
    S52[S52 MOUNT CIRCUIT BOARD ONTO BONDING STAGE BY CONVEYOR ARM]
    S53[S53 PERFORM IMAGE RECOGNITION OF MARKING OF JIG WITH LOWER FIELD OF VIEW]
    S54[S54 PICKUP JIG BY BONDING HEAD]
    S55[S55 PERFORM IMAGE RECOGNITION OF MARKING OF JIG WITH UPPER FIELD OF VIEW]

    S50 --> S51
    S51 --> S52
    S52 --> S53
    S53 -- SIMULTANEOUSLY --> S54
    S54 -- SIMULTANEOUSLY --> S55
```

The flowchart illustrates the calibration of an optical system, consisting of the following steps:

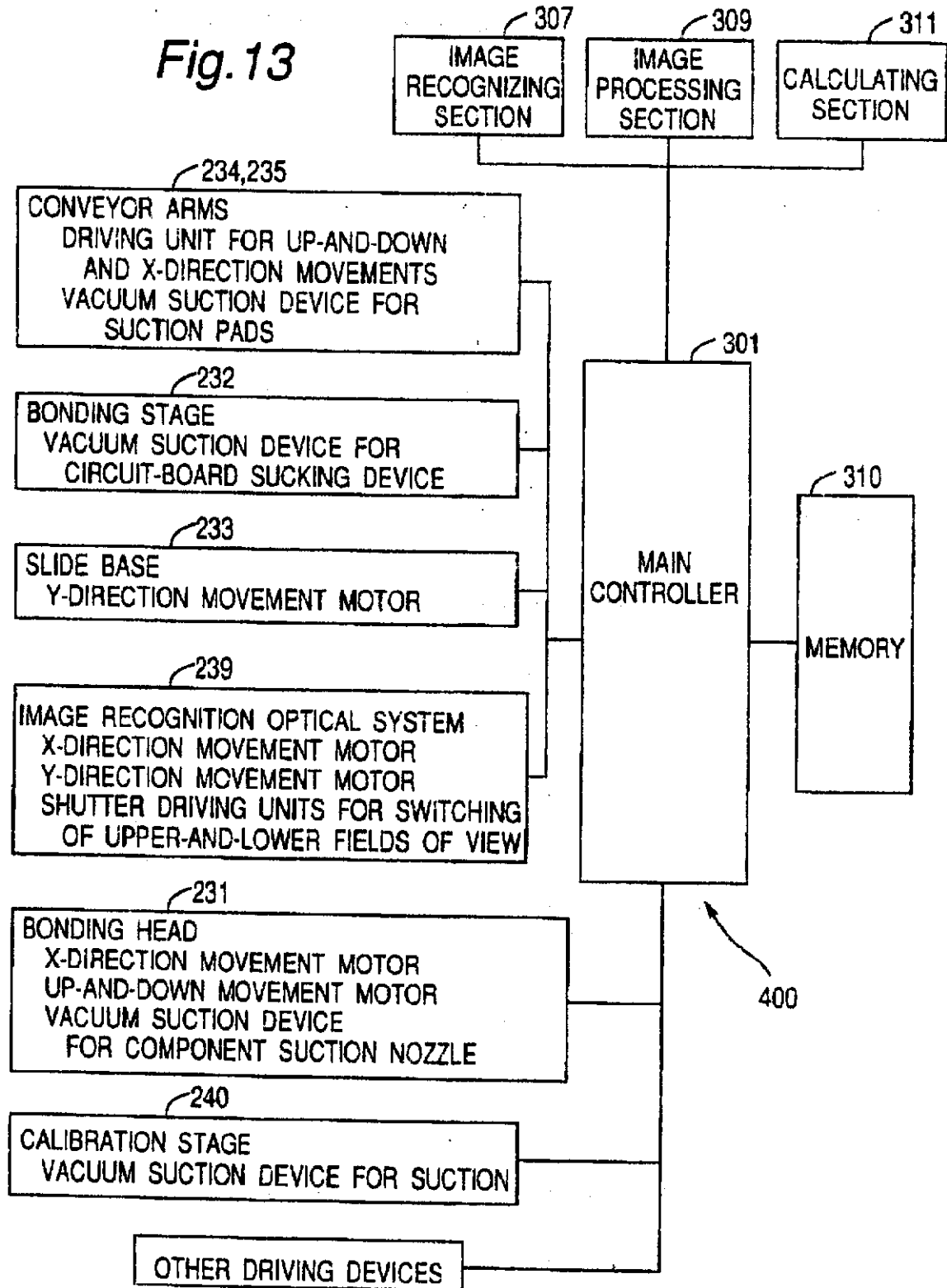
- S50:** PICKUP OF CIRCUIT BOARD BY CONVEYOR ARM
- S51:** MOVE CONVEYOR ARM IN X DIRECTION
- S52:** MOUNT CIRCUIT BOARD ONTO BONDING STAGE BY CONVEYOR ARM
- S53:** PERFORM IMAGE RECOGNITION OF MARKING OF JIG WITH LOWER FIELD OF VIEW
- S54:** PICKUP JIG BY BONDING HEAD
- S55:** PERFORM IMAGE RECOGNITION OF MARKING OF JIG WITH UPPER FIELD OF VIEW

The process is divided into two main sections:

- [CIRCUIT BOARD FEEDING]:** Includes steps S50 and S51.
- [CALIBRATION OF OPTICAL SYSTEM]:** Includes steps S52, S53, S54, and S55.

Simultaneous operations are indicated by dashed lines and the word "SIMULTANEOUSLY":

- Steps S53 and S54 are simultaneous.
- Steps S54 and S55 are simultaneous.

Fig. 13

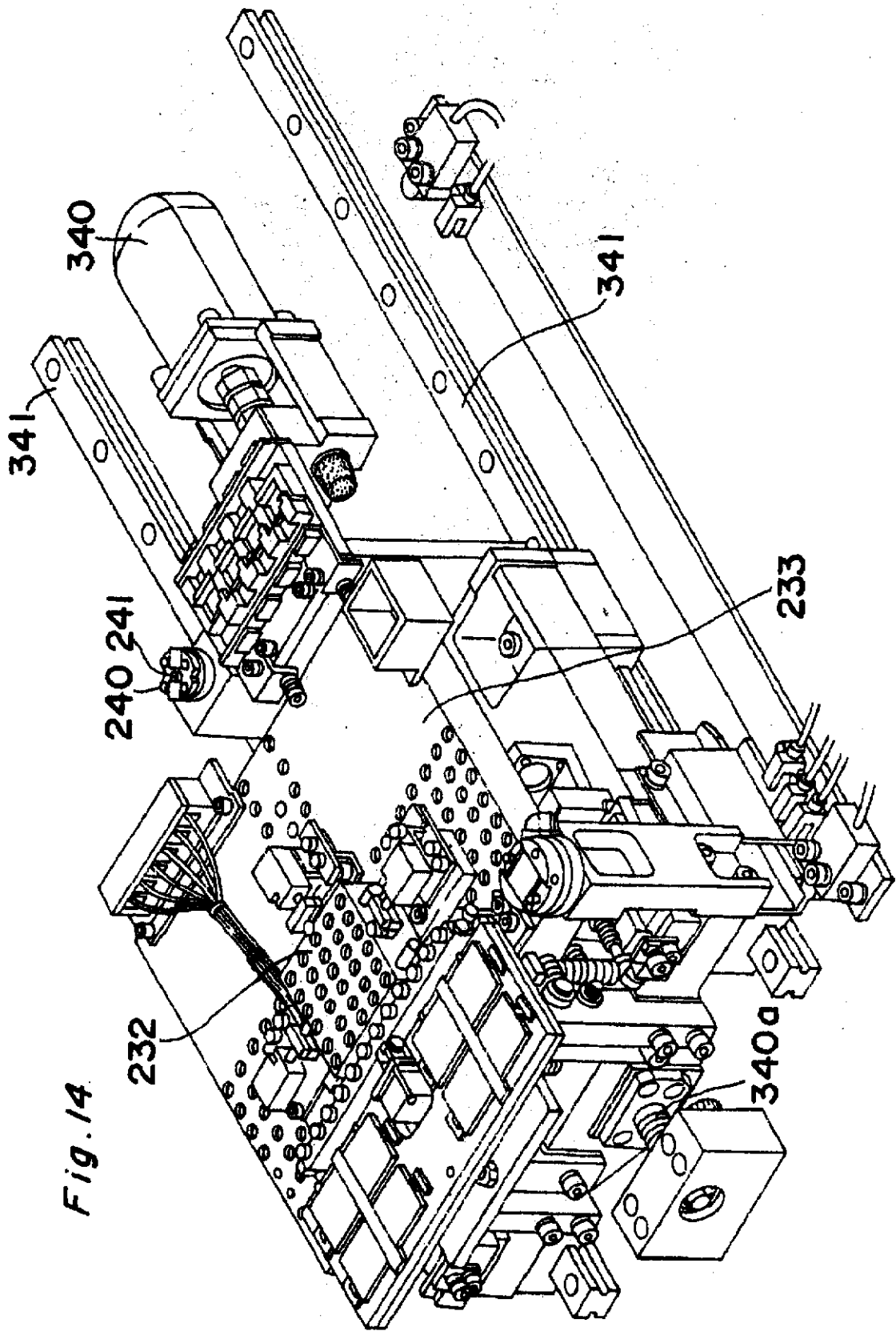


Fig. 14

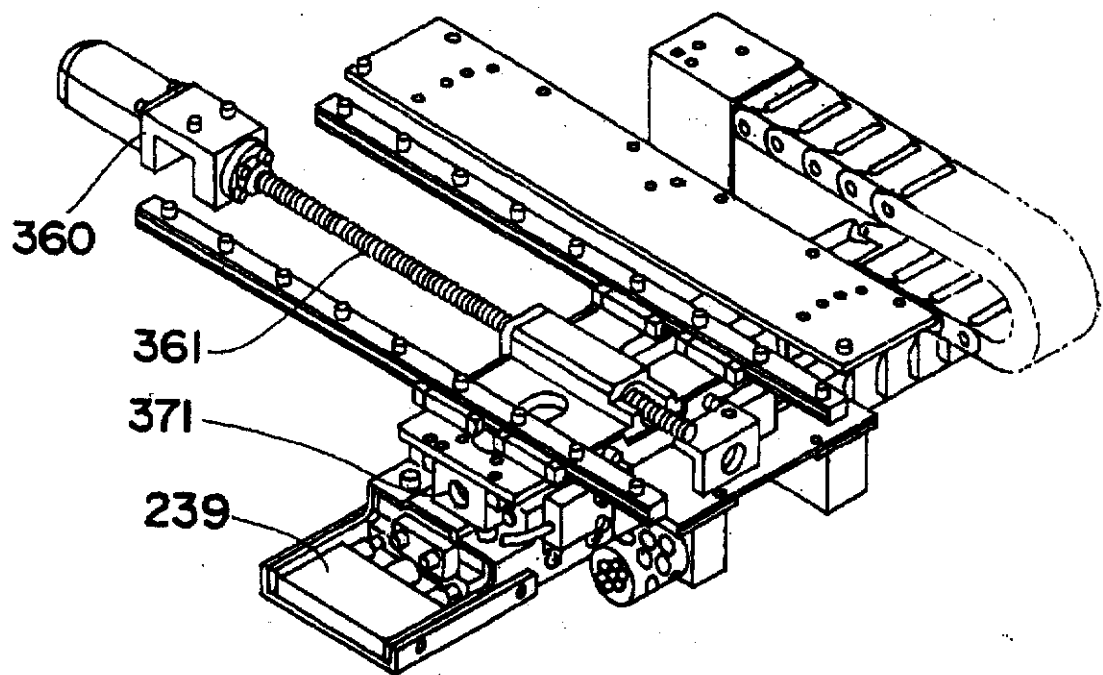
Fig. 15

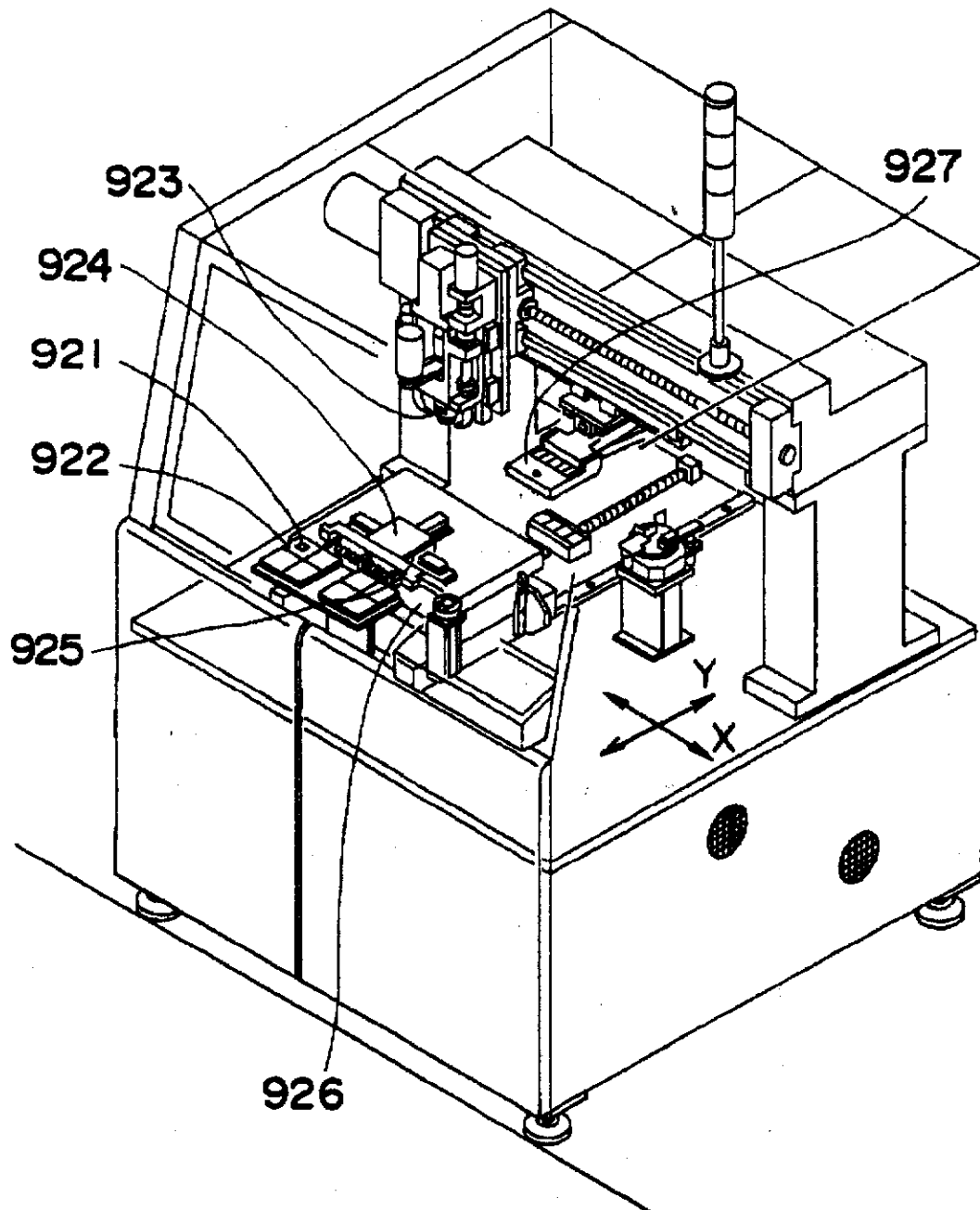
Fig. 16

Fig. 17

