



US008928552B2

(12) **United States Patent**
Aono et al.

(10) **Patent No.:** **US 8,928,552 B2**
(45) **Date of Patent:** **Jan. 6, 2015**

(54) **PERSONAL DIGITAL ASSISTANT, AND
DISPLAY CONTROL METHOD AND DISPLAY
CONTROL PROGRAM THEREOF**

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(JP)

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(JP)

(*) Notice: Subject to any disclaimer, the term of this
patent is extended or adjusted under 35
U.S.C. 154(b) by 787 days.

(21) Appl. No.: **13/180,795**

(22) Filed: **Jul. 12, 2011**

(65) **Prior Publication Data**

US 2012/0139815 A1 Jun. 7, 2012

Related U.S. Application Data

(60) Provisional application No. 61/418,731, filed on Jan.
12, 2010.

(51) **Int. Cl.**
G09G 5/00 (2006.01)
G06F 1/16 (2006.01)

(52) **U.S. Cl.**
CPC **G06F 1/1677** (2013.01); **G06F 1/1616**
(2013.01); **G06F 1/1624** (2013.01); **G06F**
1/1641 (2013.01)
USPC **345/1.3**; 345/1.1; 345/650; 361/679.04;
455/566

(58) **Field of Classification Search**
CPC ... G06F 1/1641; G06F 3/0488; G06F 1/1616;
G06F 3/1423

See application file for complete search history.

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Primary Examiner — Gerald Johnson

(74) *Attorney, Agent, or Firm* — Oblon, Spivak,
McClelland, Maier & Neustadt, L.L.P.

(57) **ABSTRACT**

An information processing device including a plurality of rectangular-shaped casings each including a first principal surface, and a second principal surface opposing the first principal surface and including a display panel having a pre-determined aspect ratio. The information processing device including a connecting portion connecting each of the plurality of rectangular-shaped casings in a closed state in which each of the plurality of rectangular-shaped casings are mutually overlaid and a display panel of at least one of the plurality of rectangular-shaped casings is externally exposed, and in an open state in which wall portions of mutually adjacent rectangular-shaped casings abut and the display panels of each of the plurality of rectangular-shaped casings face a similar direction. The information processing device further includes a terminal state detecting unit that detects the closed state and the opened state, and a display control unit that controls display of each of the display panels.

15 Claims, 51 Drawing Sheets

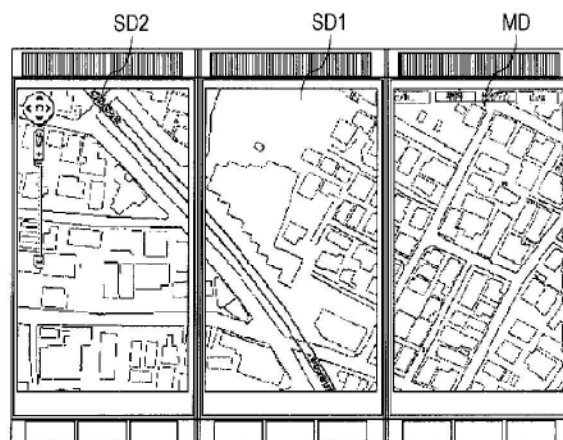


FIG. 1

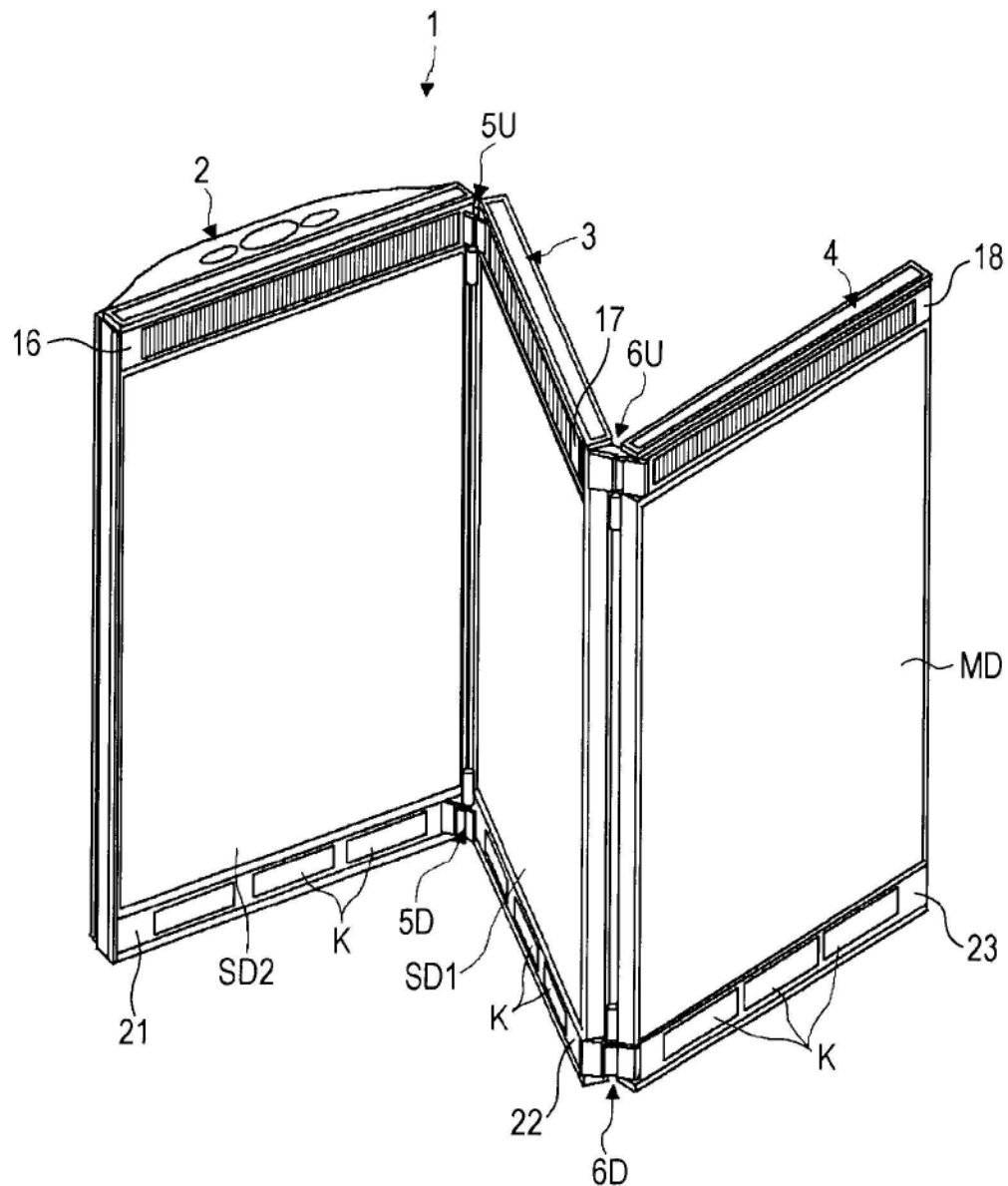


FIG. 2

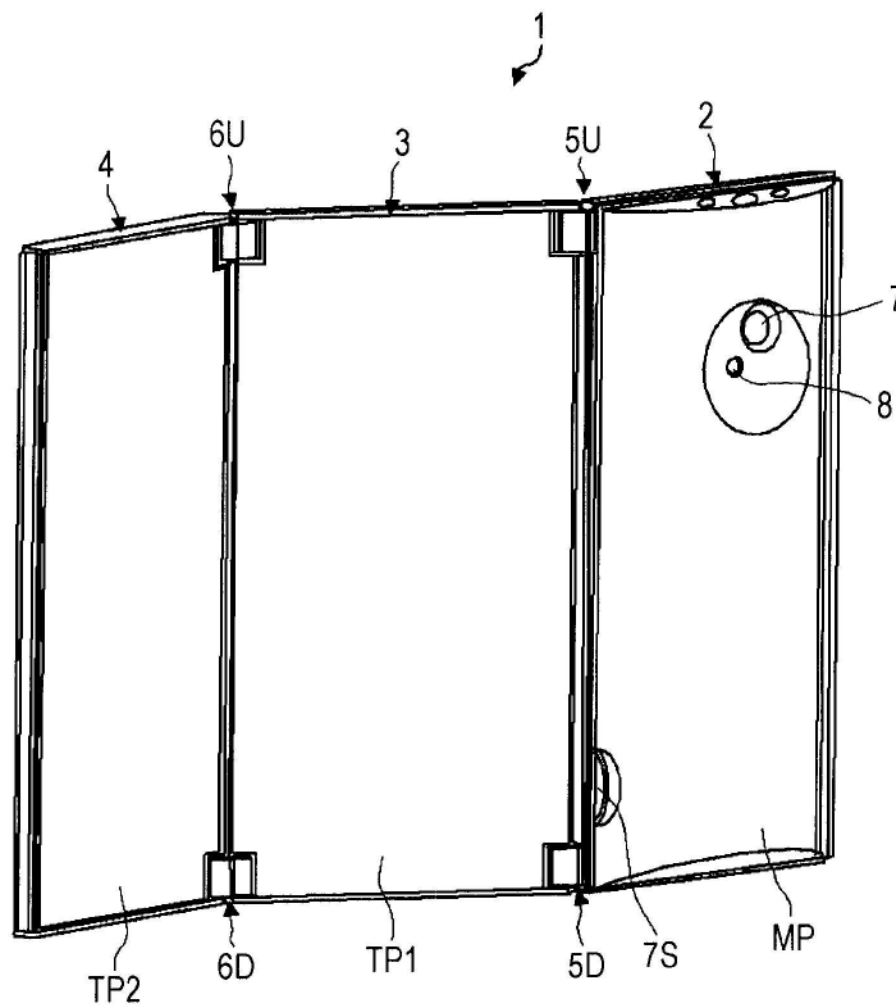


FIG. 3

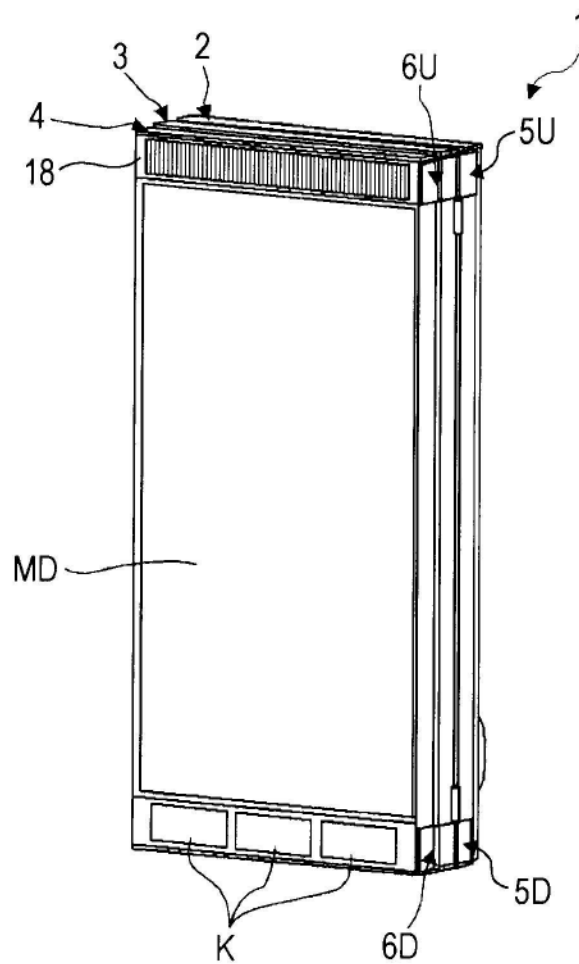


FIG. 4

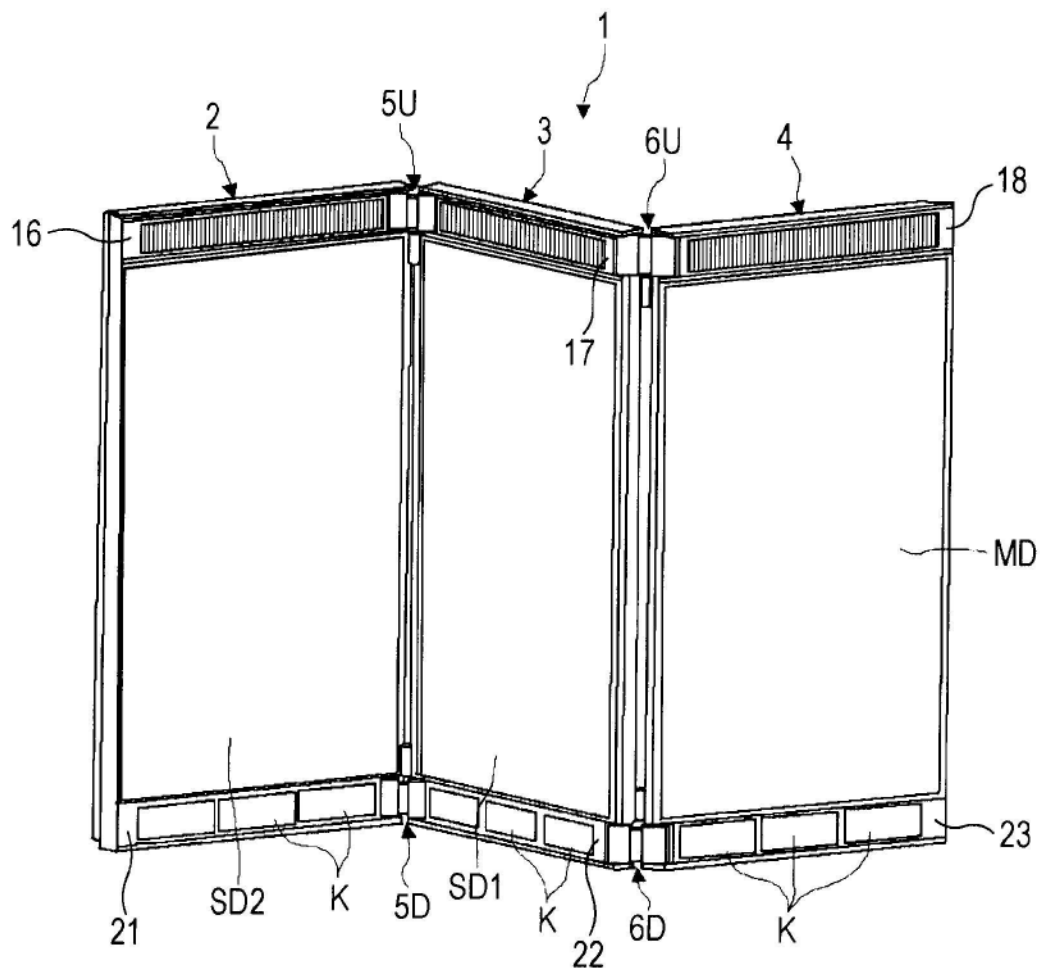


FIG. 5

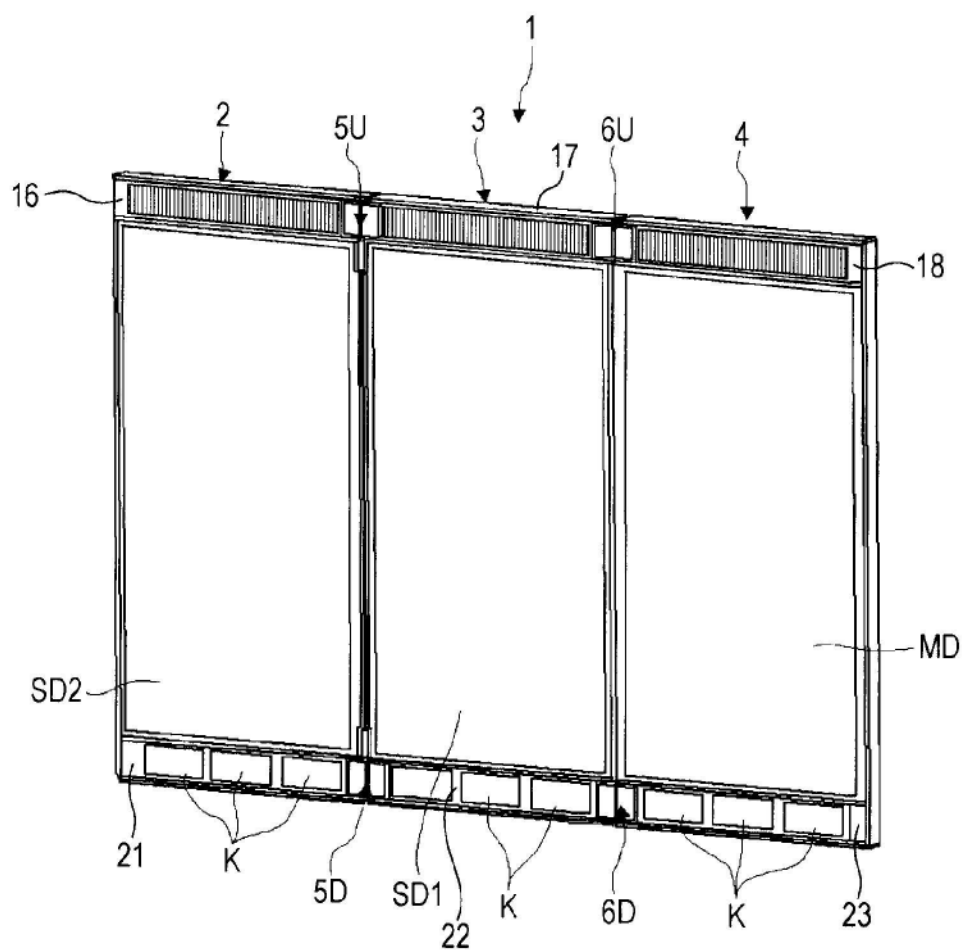


FIG. 6

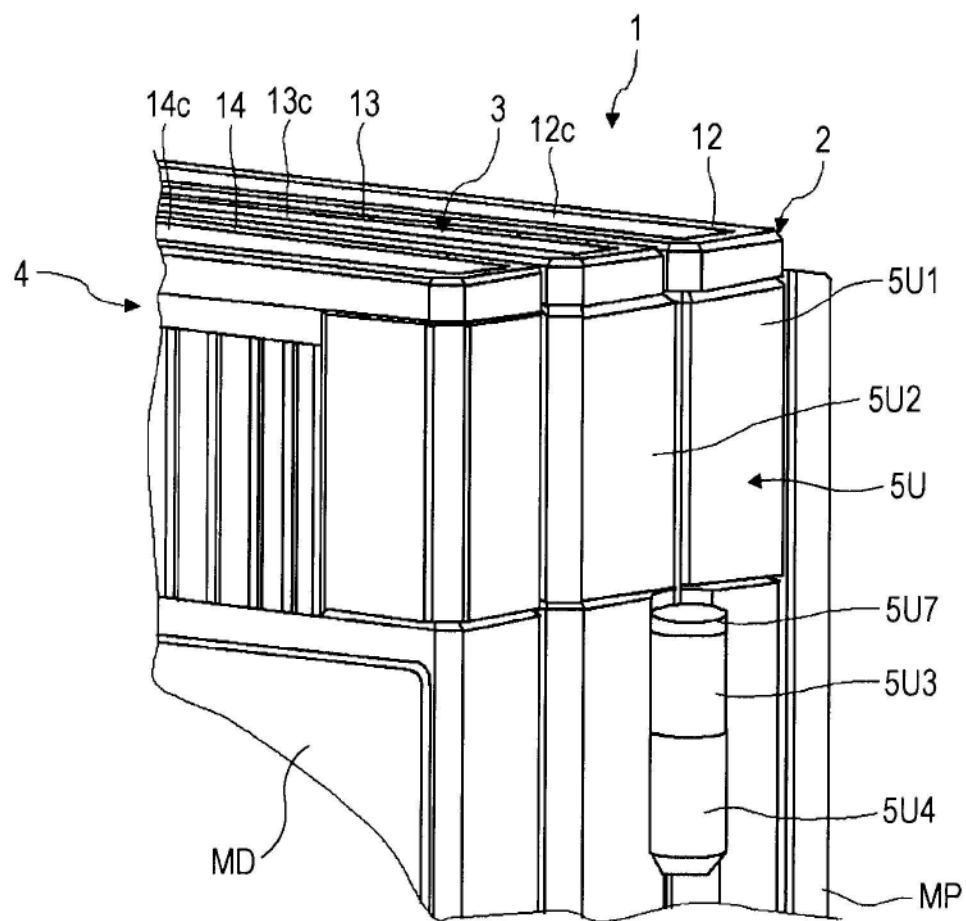


FIG. 7

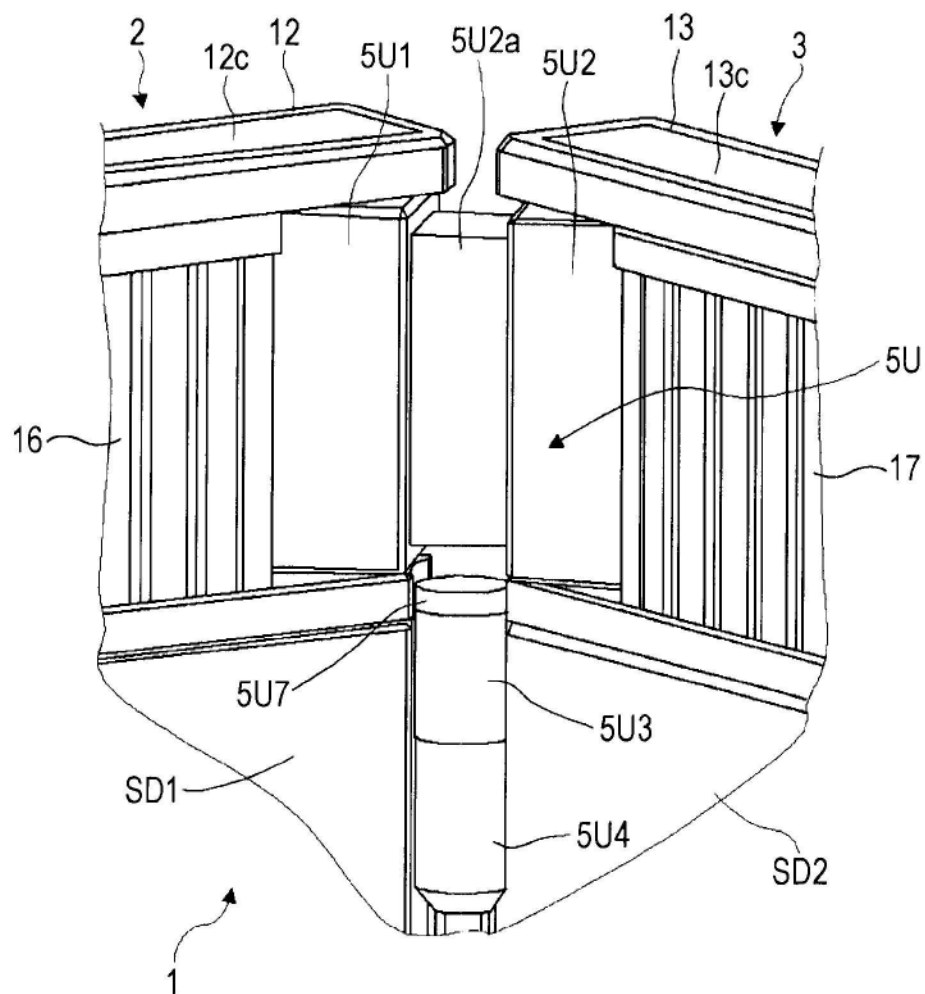


FIG. 8

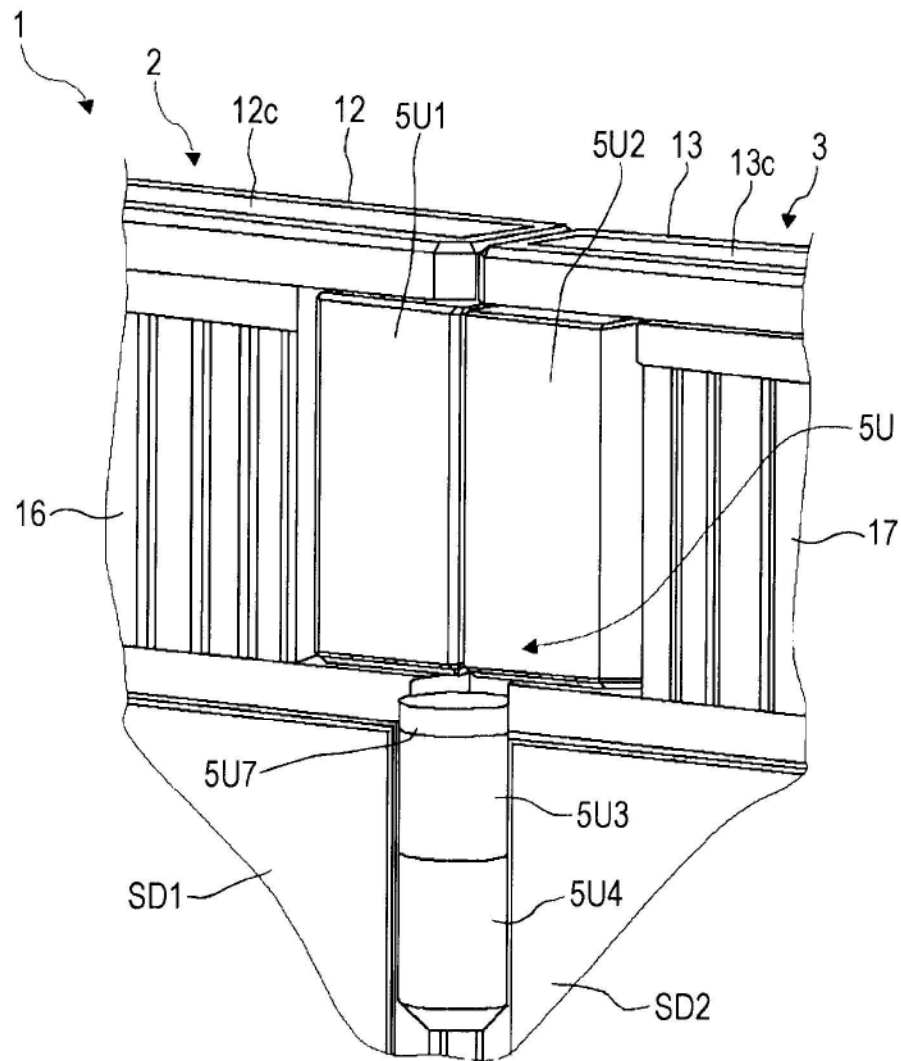


FIG. 9

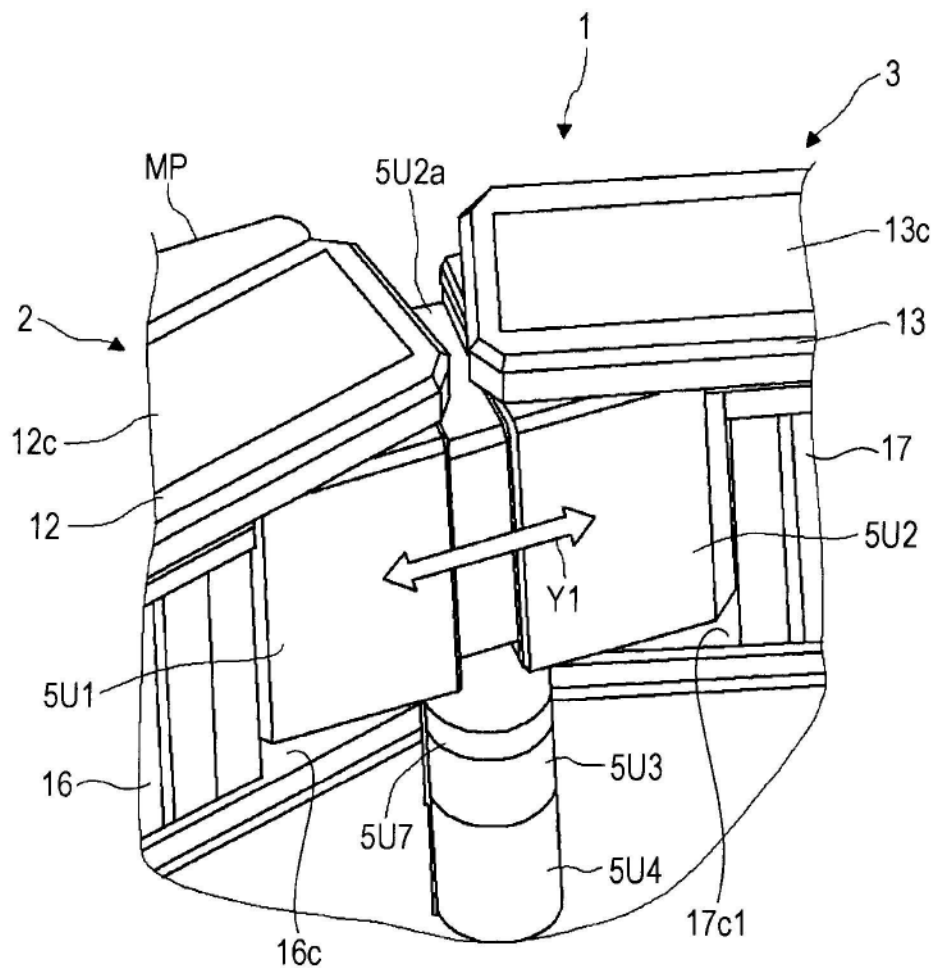


FIG. 10

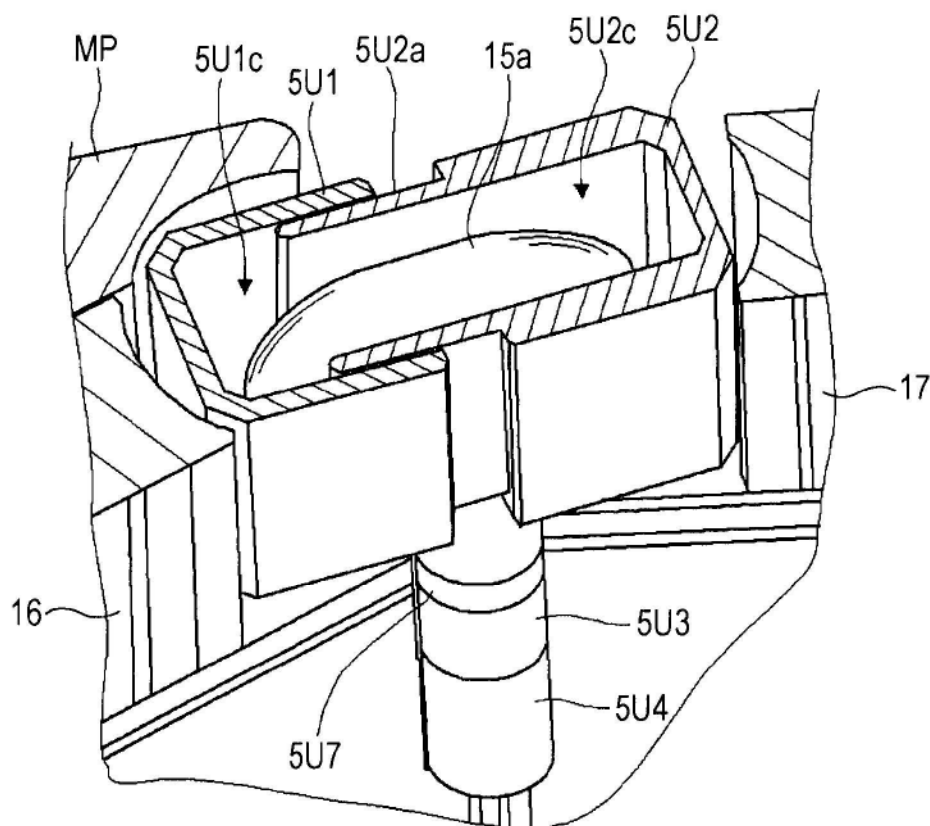


FIG. 11

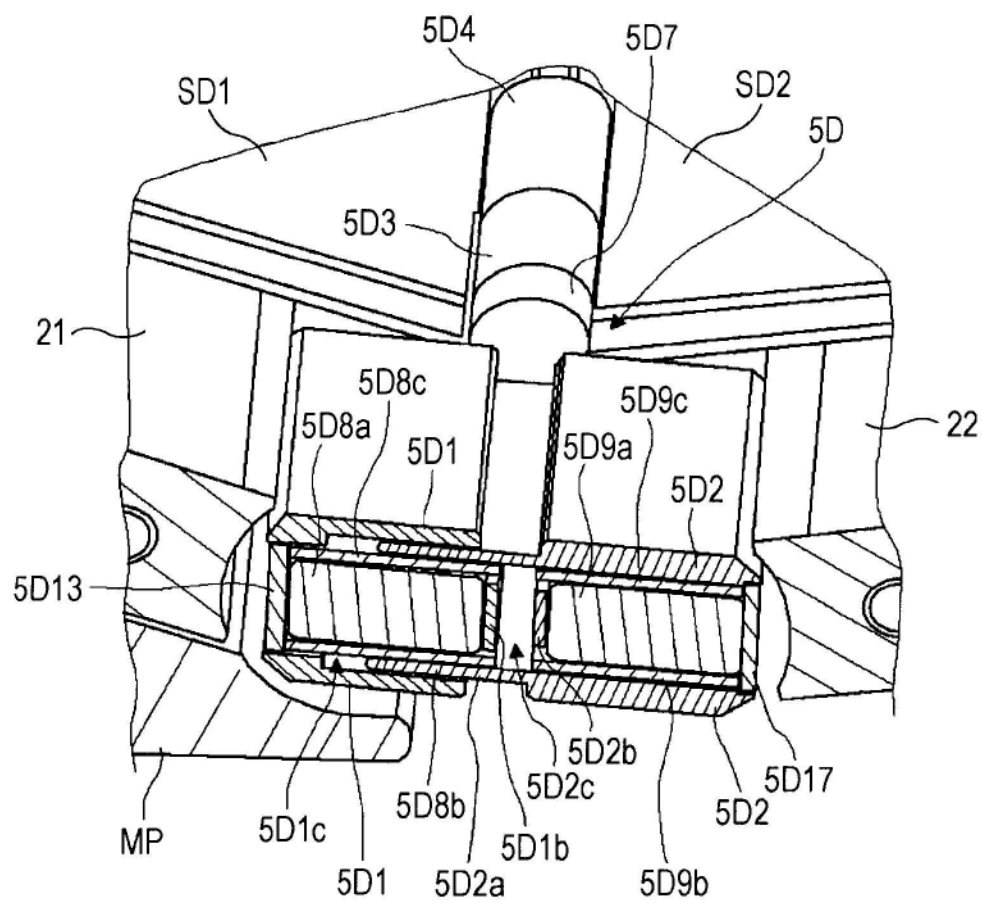


FIG. 12

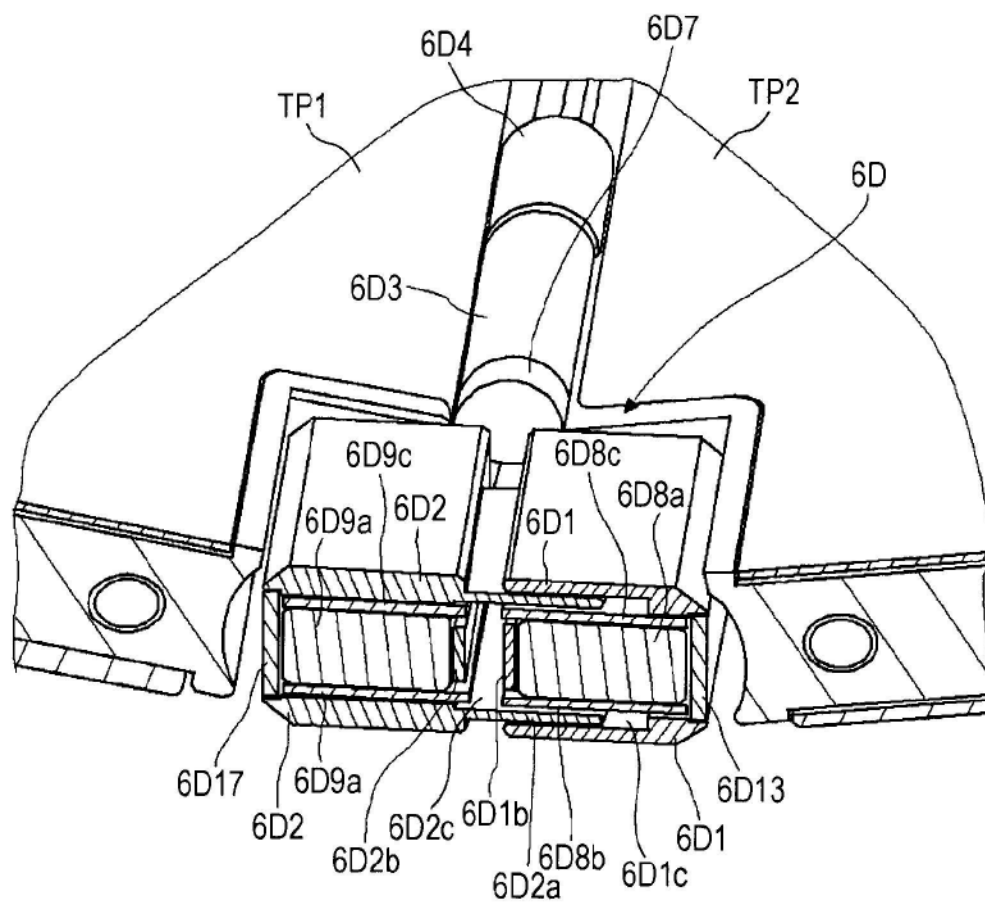


FIG. 13

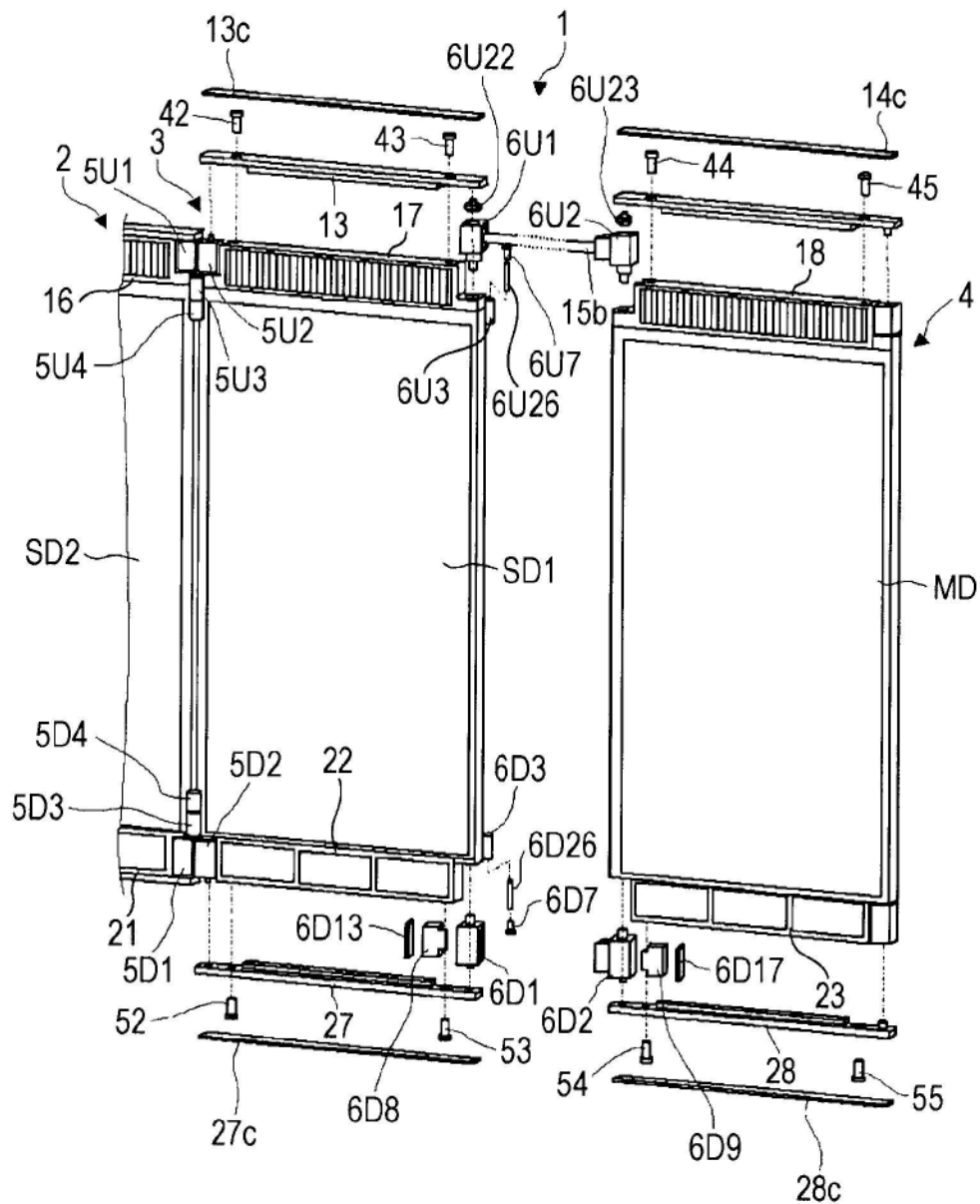


FIG. 14

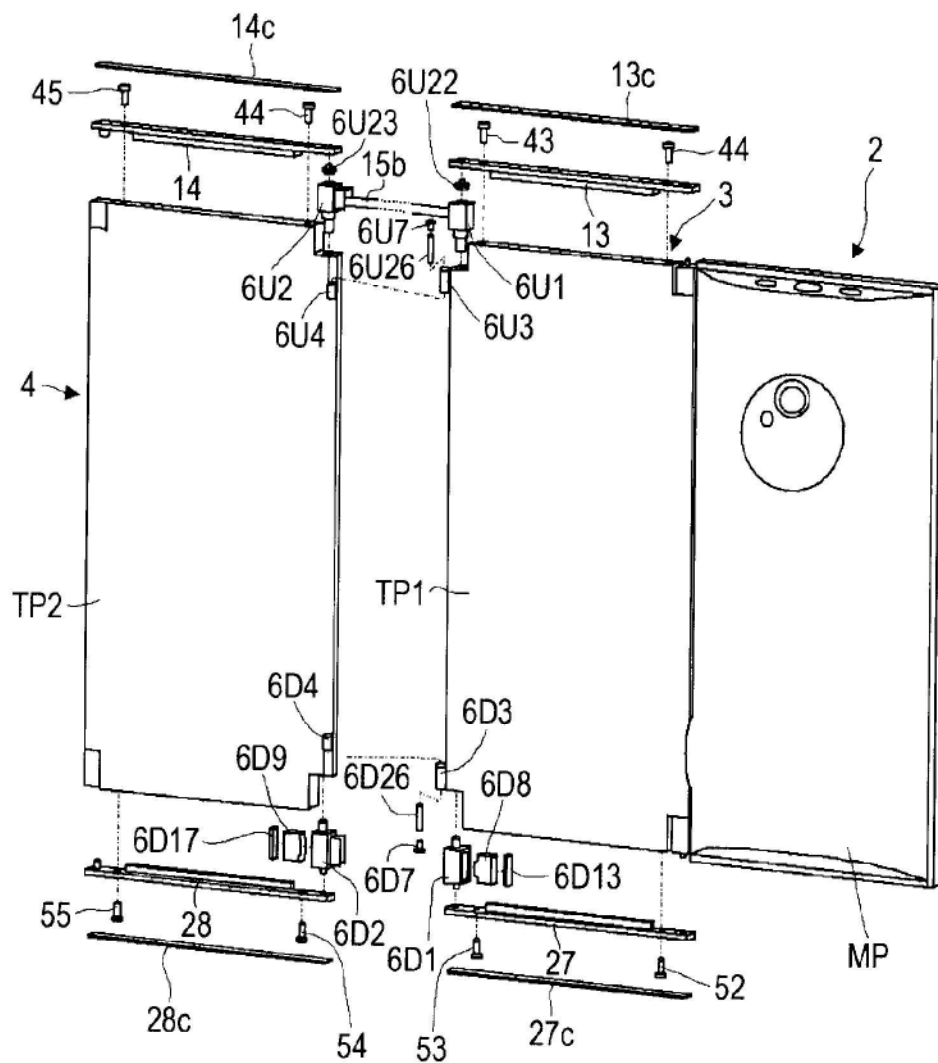


FIG. 15

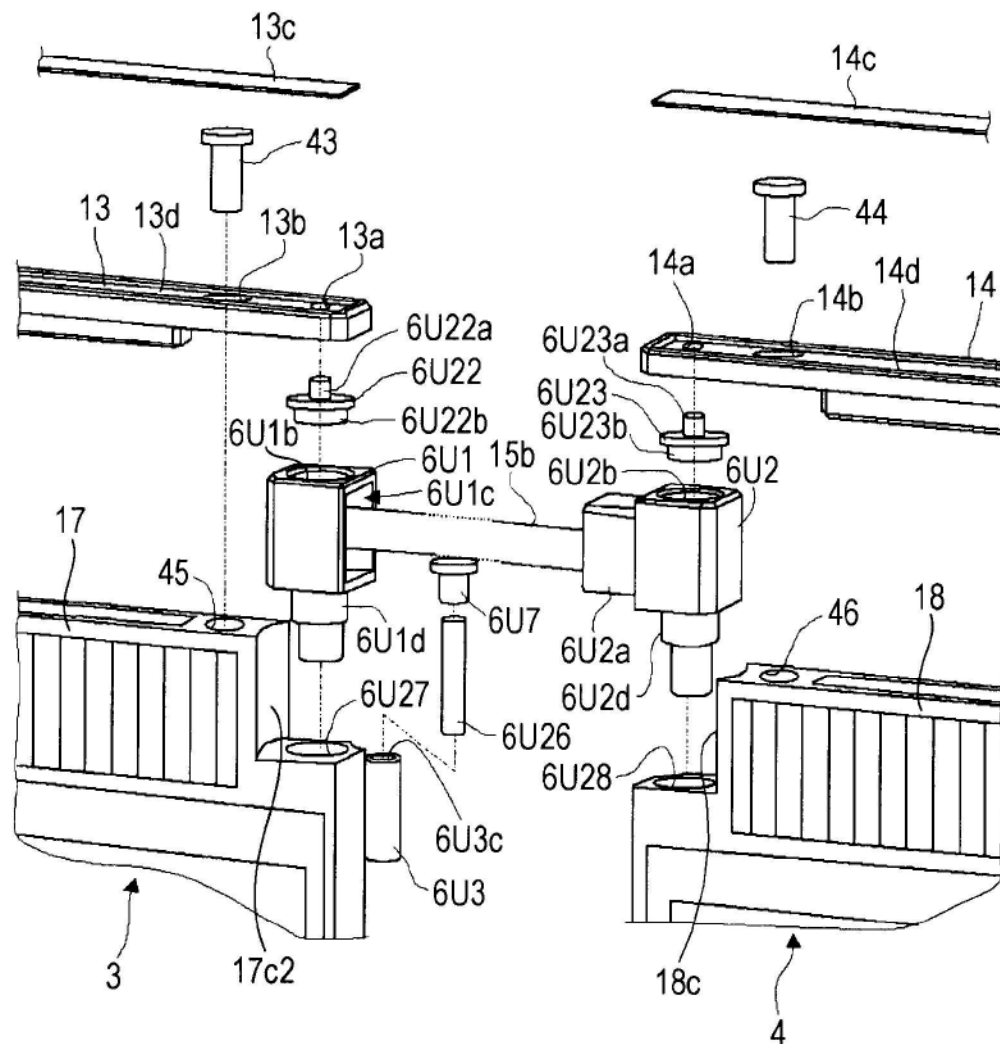


FIG. 16

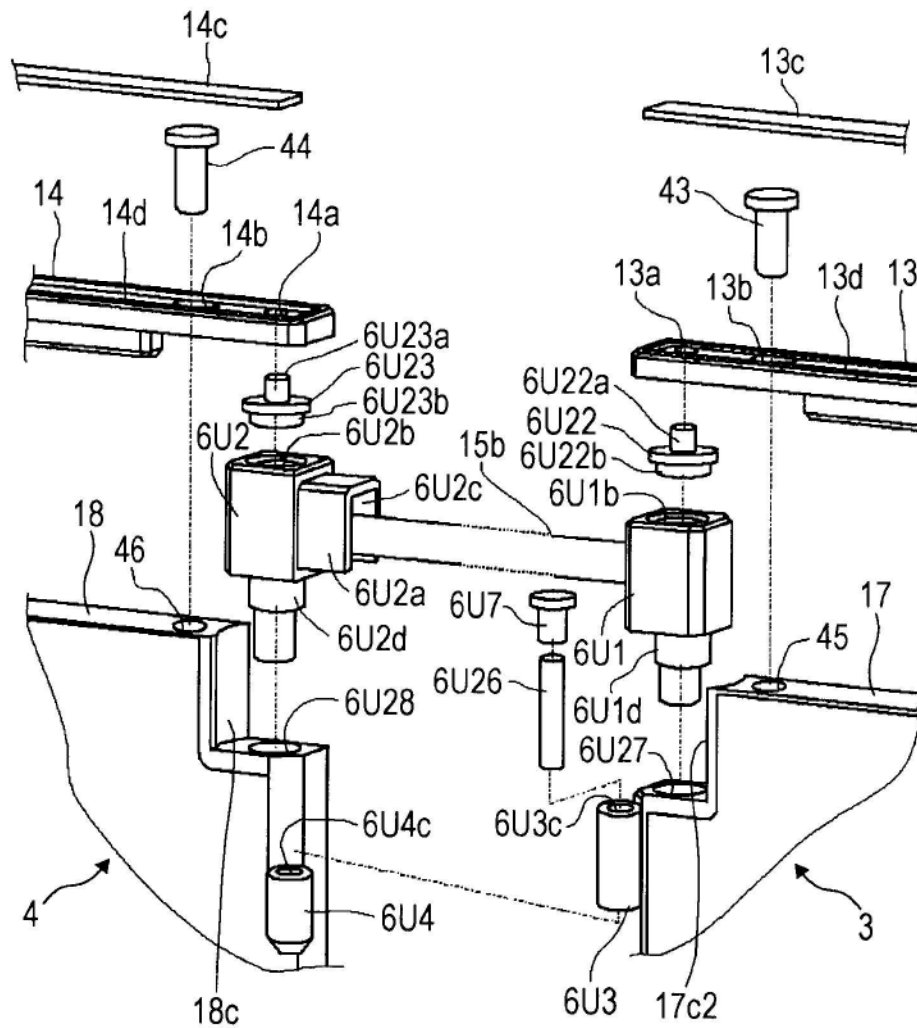


FIG. 17

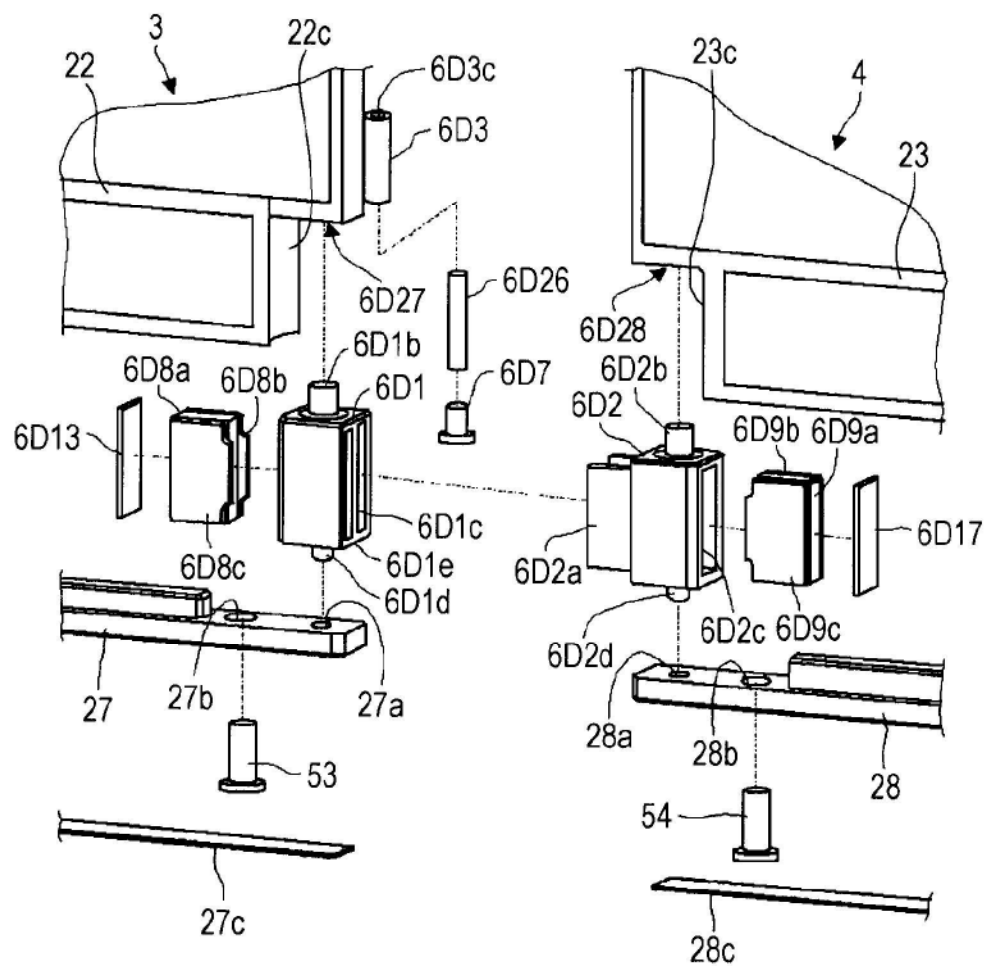


FIG. 18

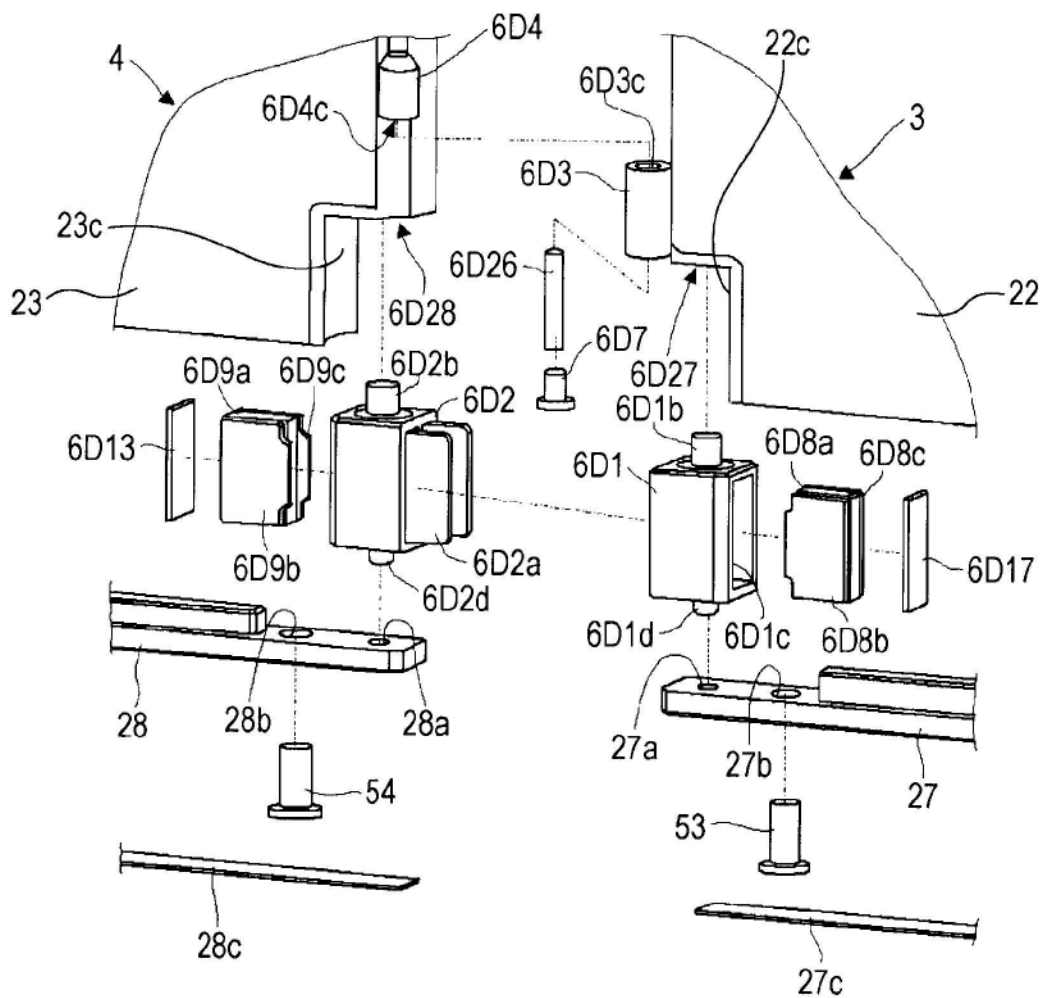


FIG. 19

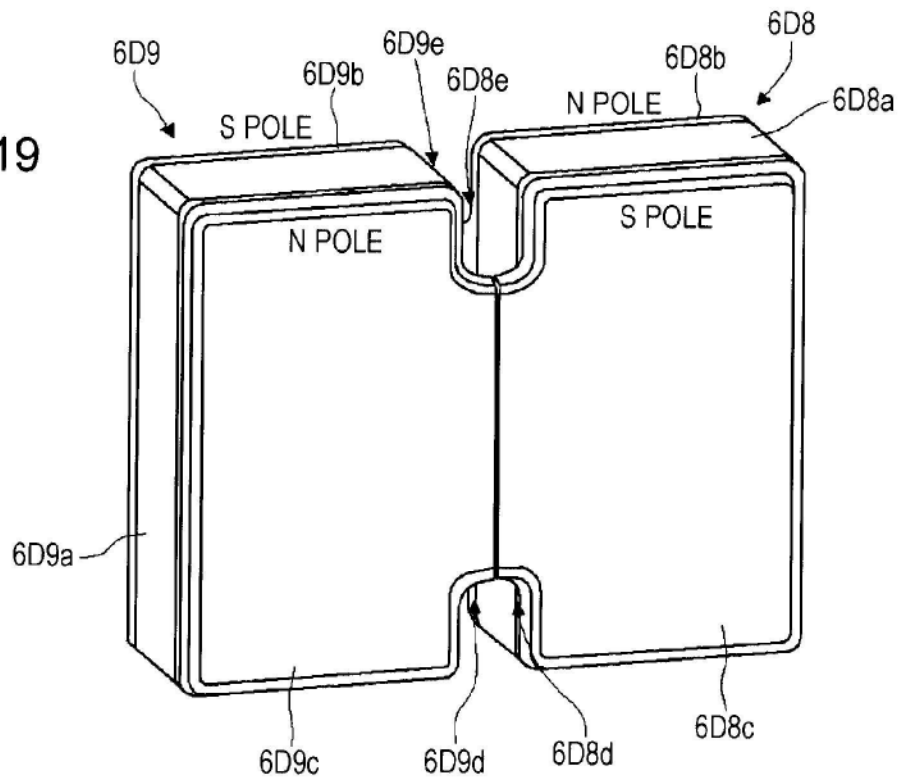


FIG. 20

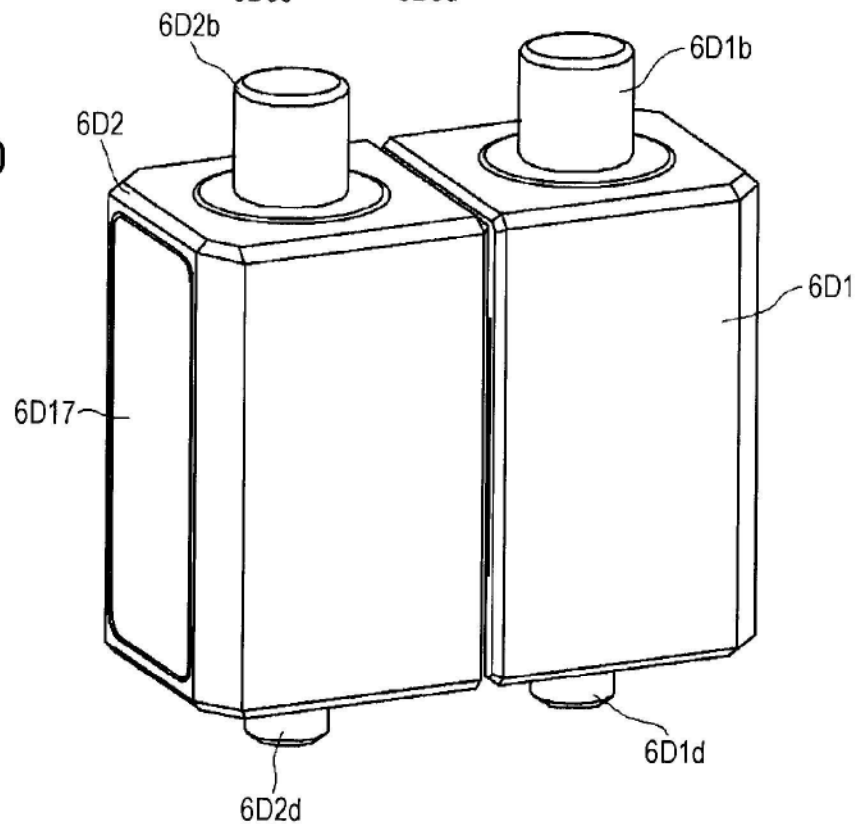


FIG. 21

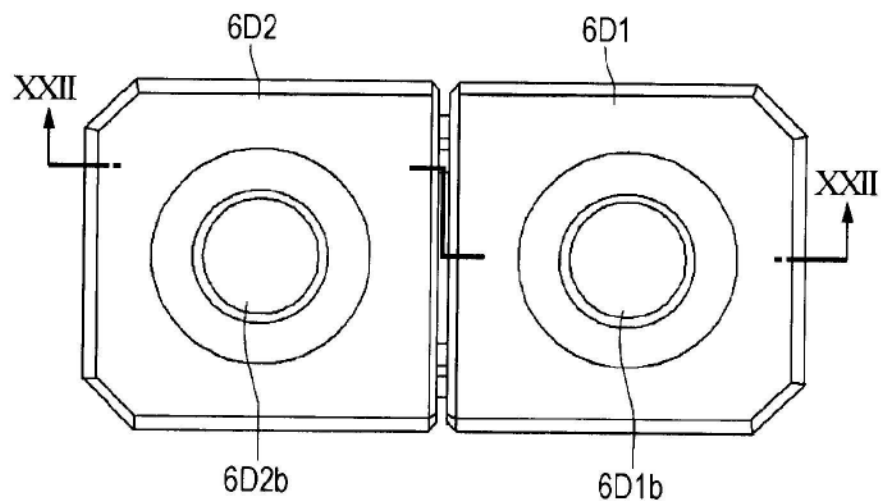


FIG. 22

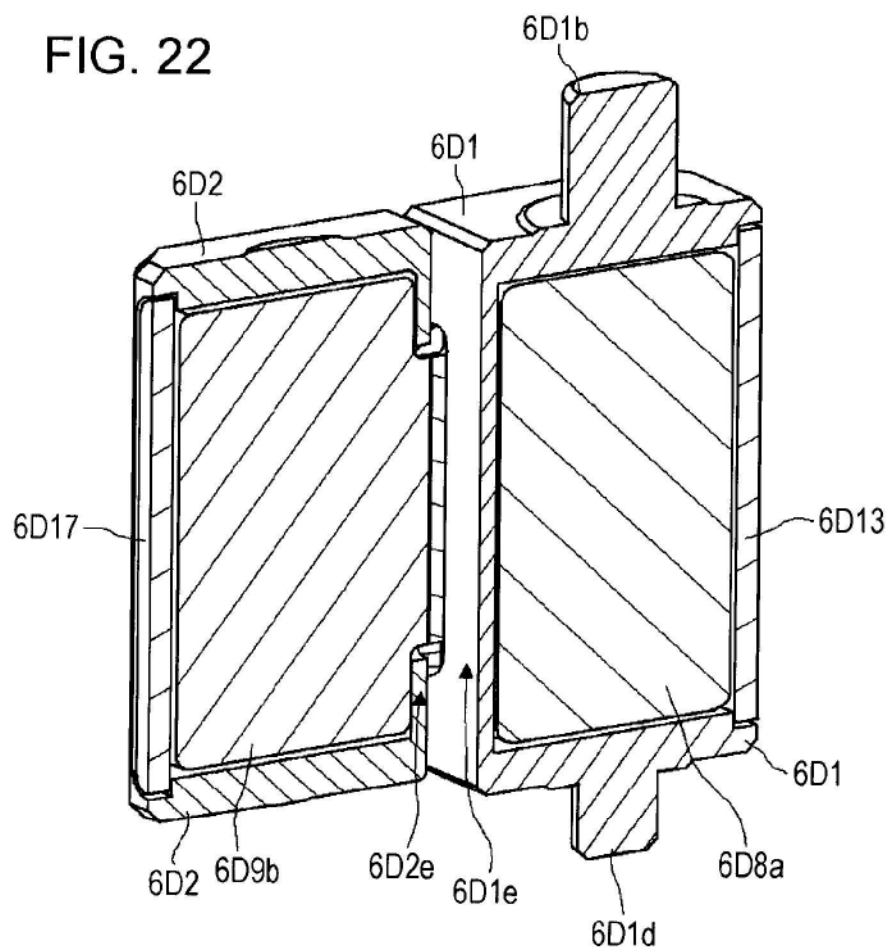


FIG. 23

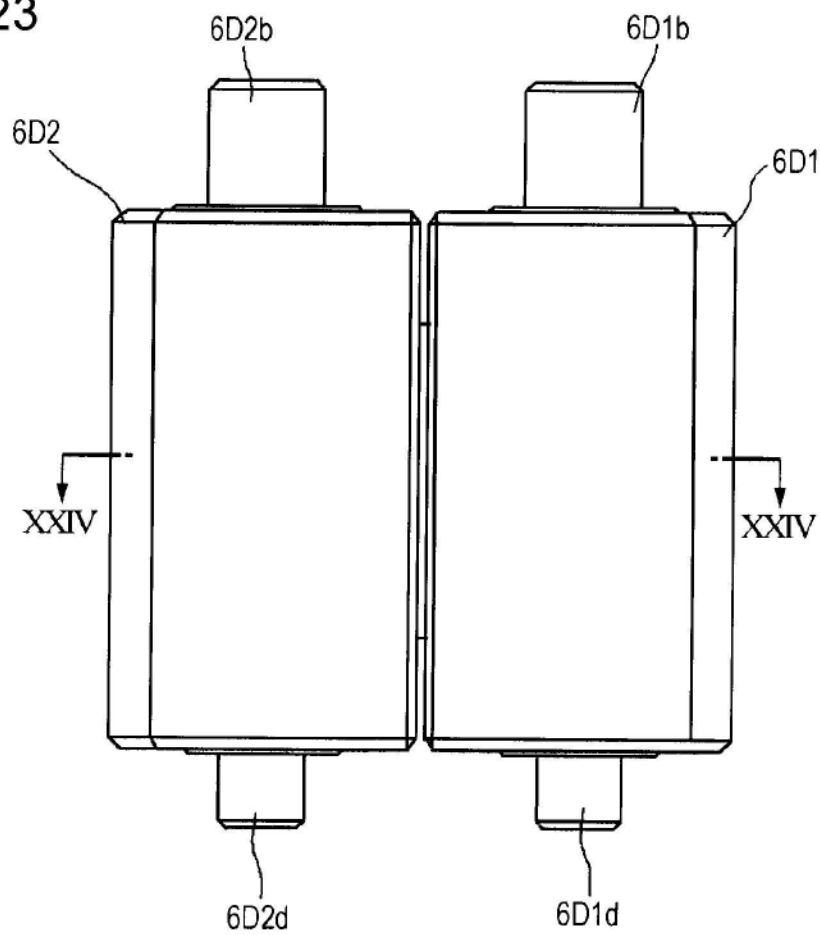


FIG. 24

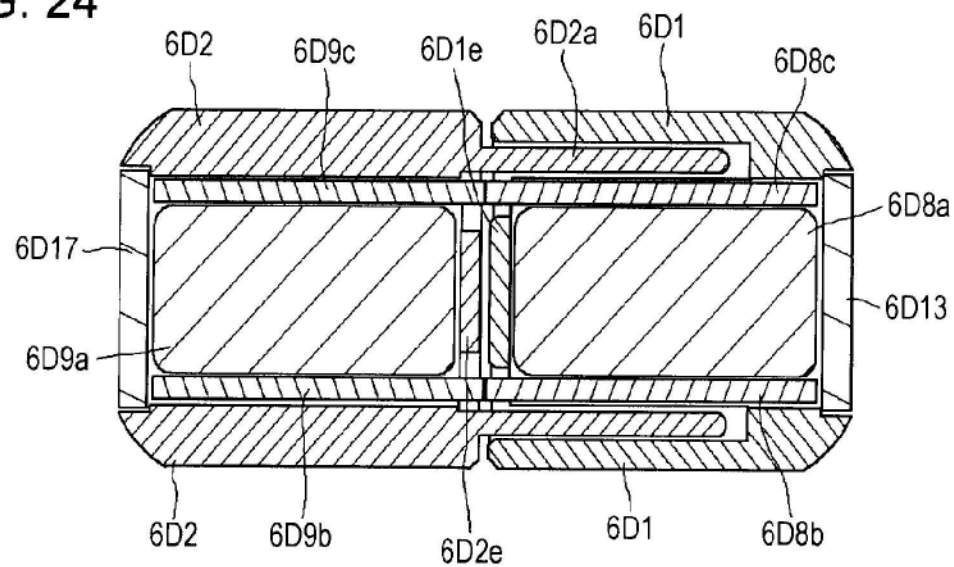


FIG. 25

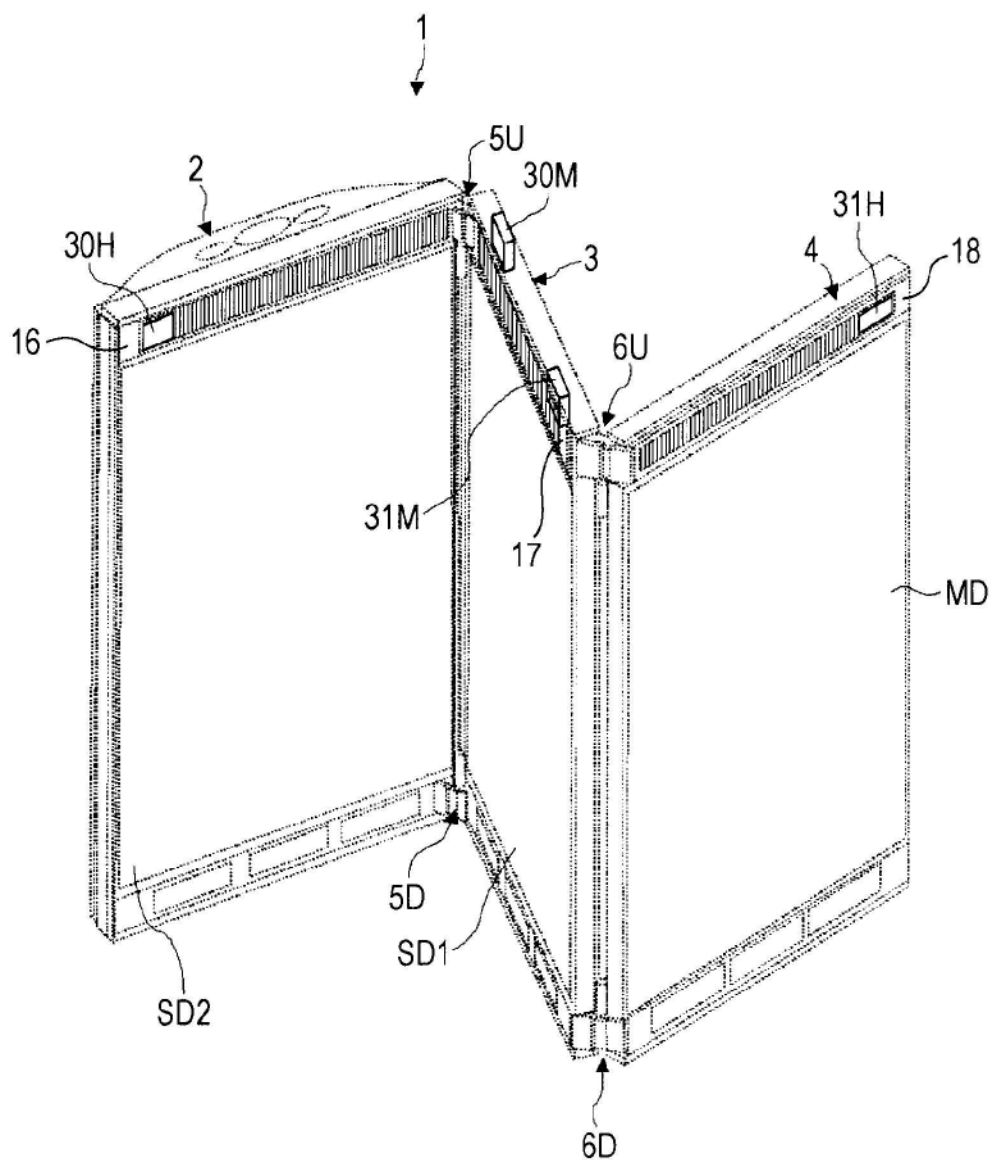


FIG. 26

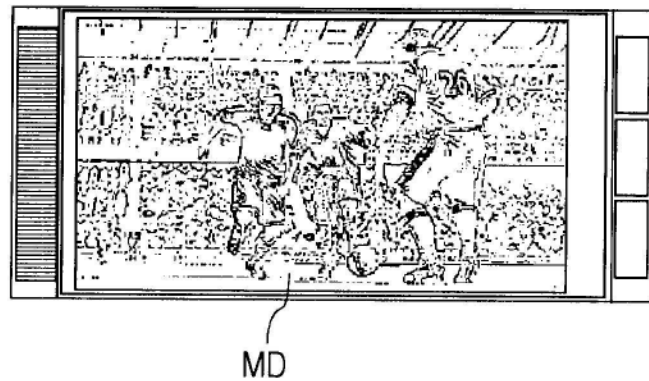


FIG. 27

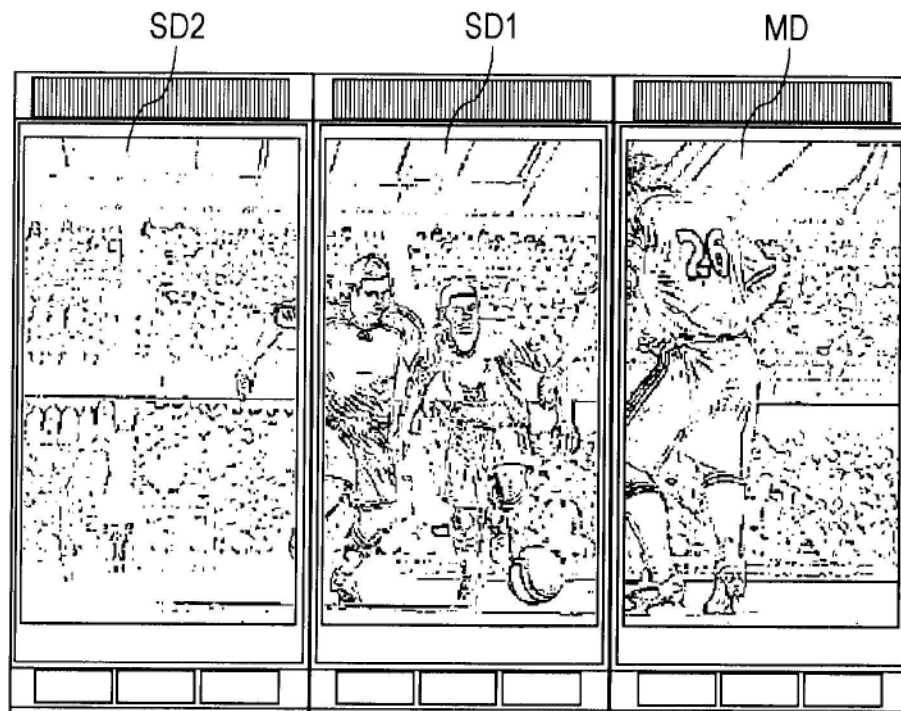


FIG. 28

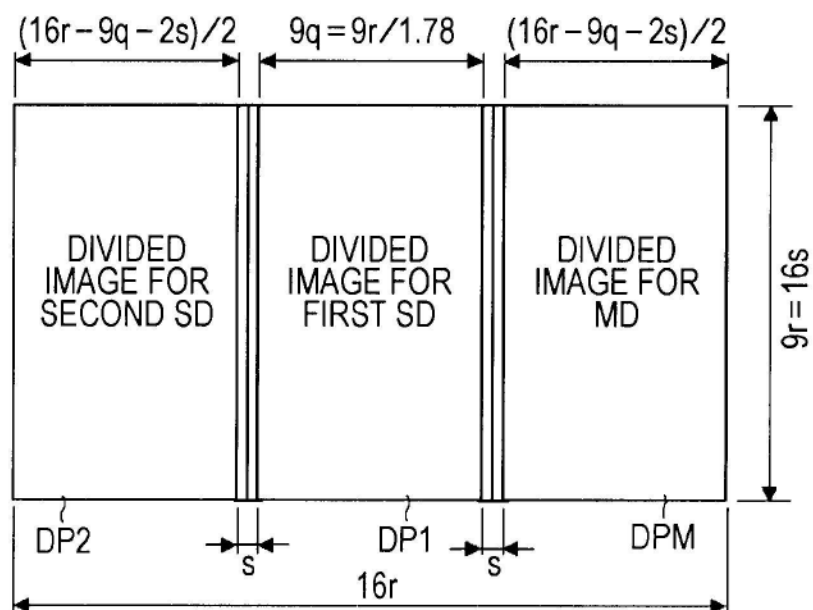


FIG. 29

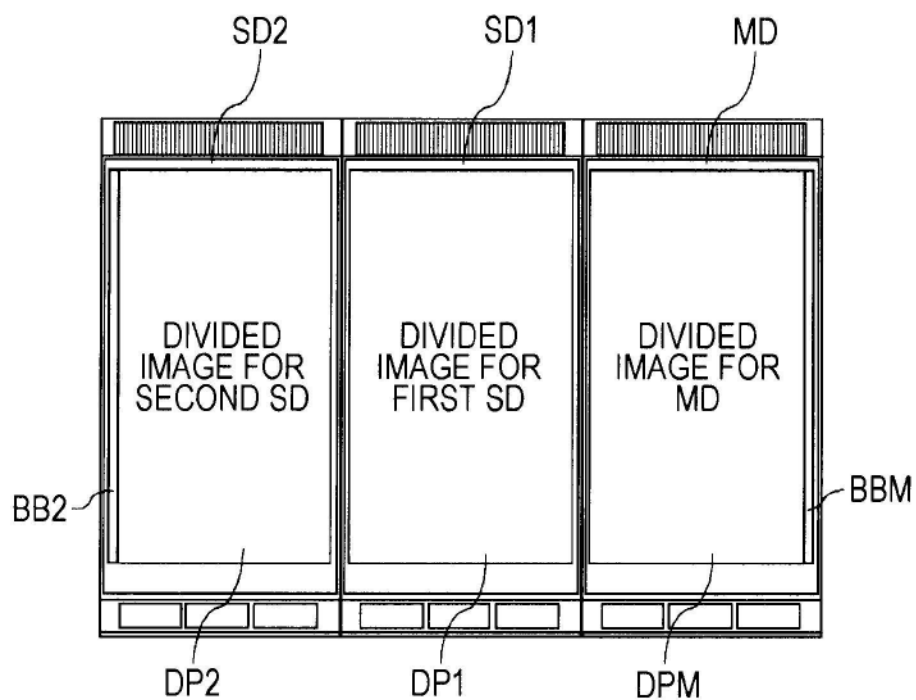


FIG. 30

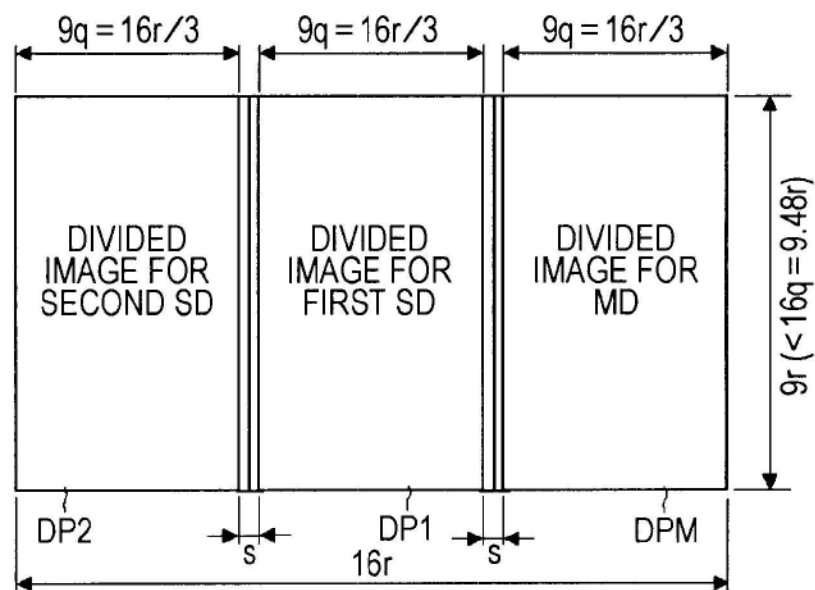


FIG. 31

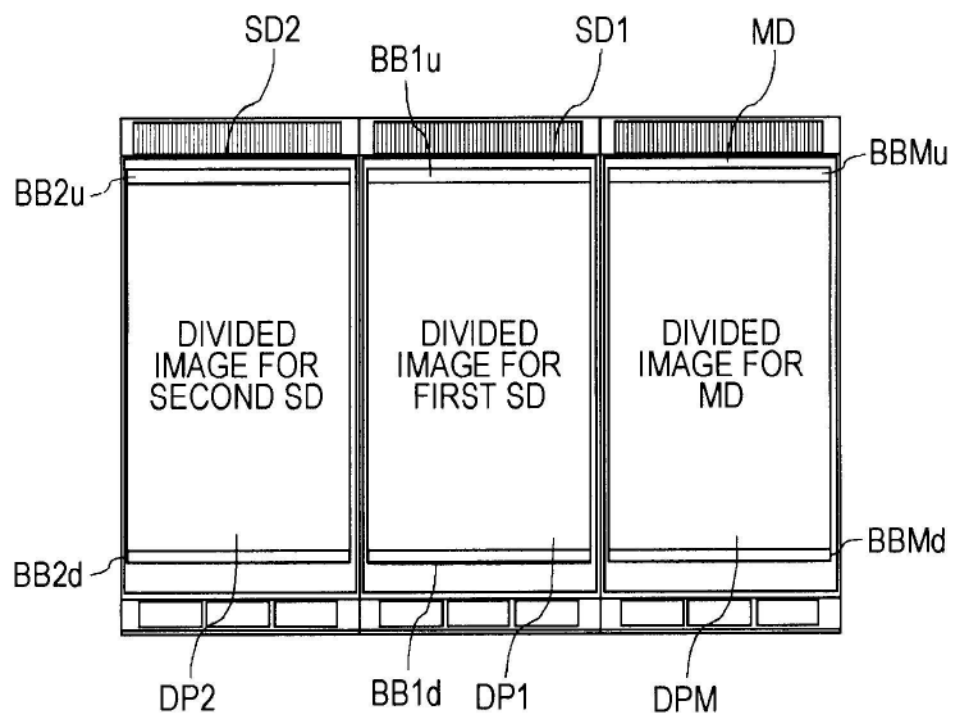


FIG. 32

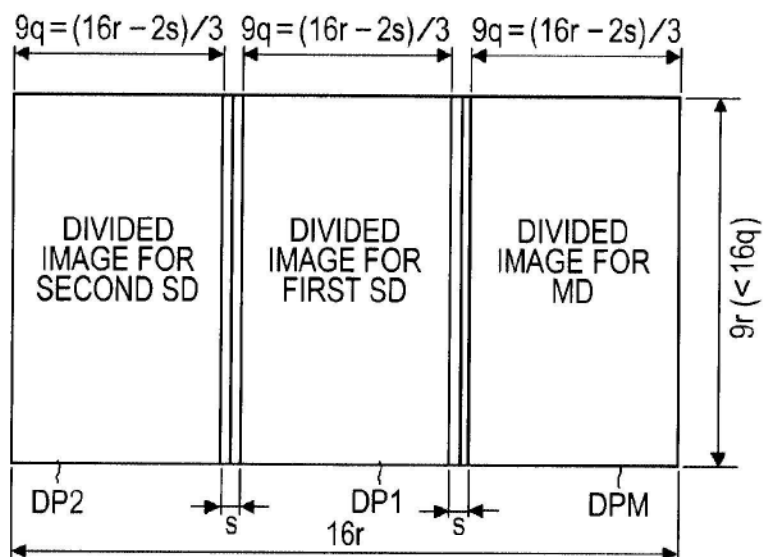


FIG. 33

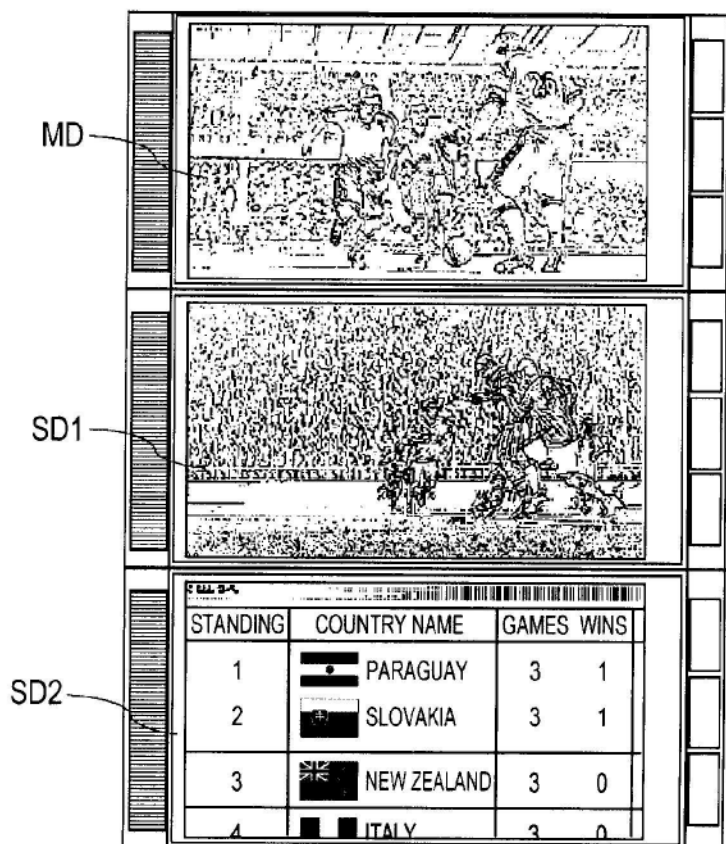


FIG. 34

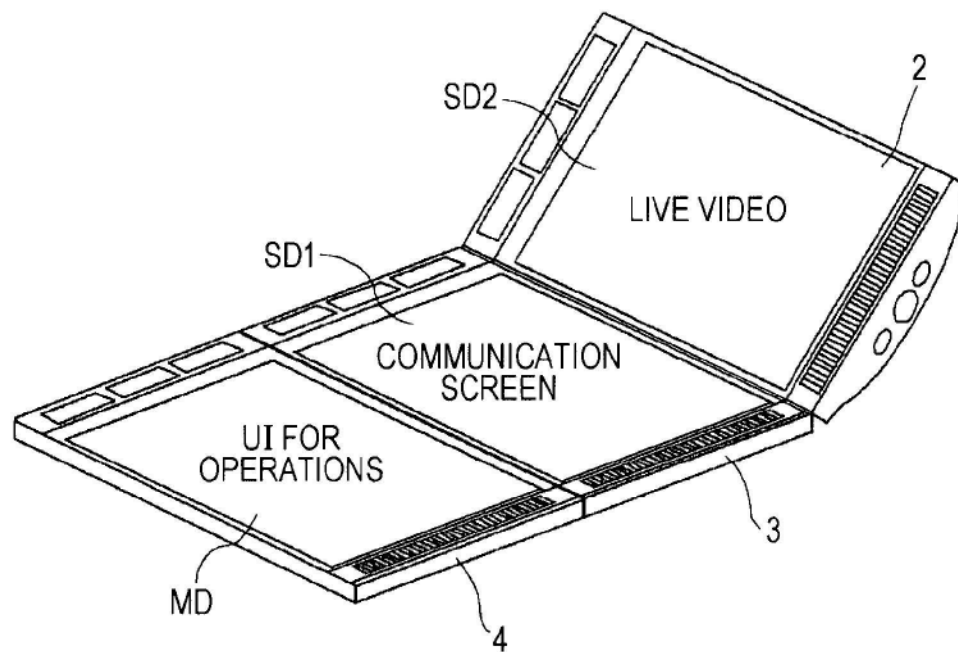


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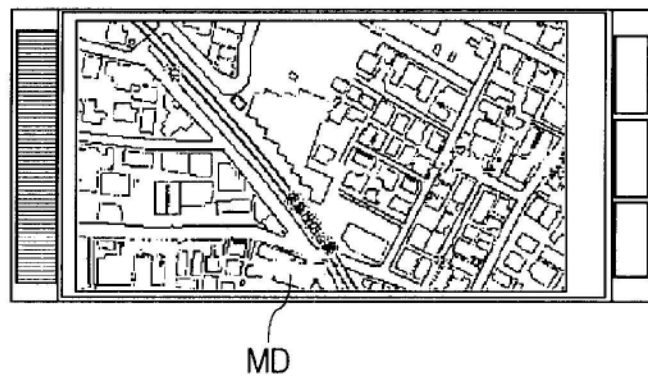


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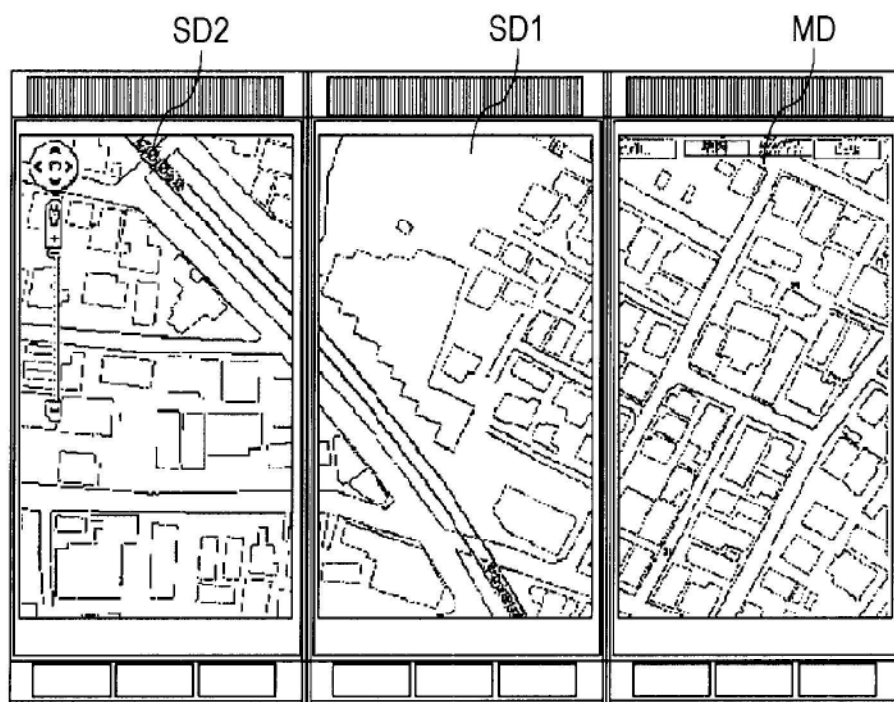


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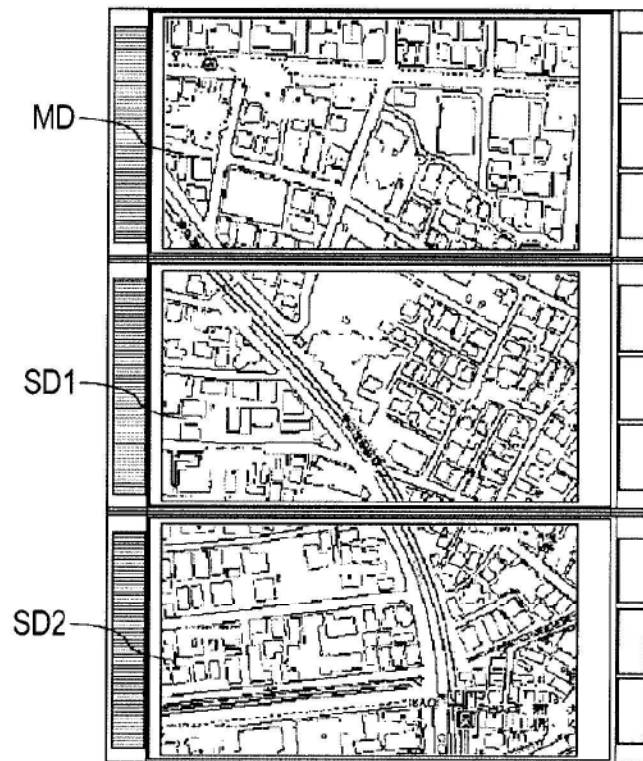


FIG. 38

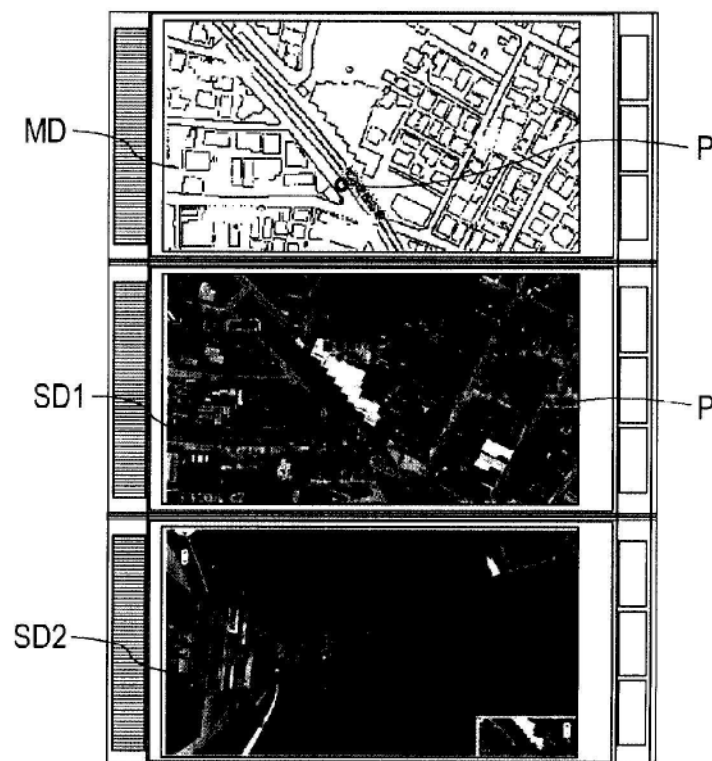


FIG. 39



FIG. 40

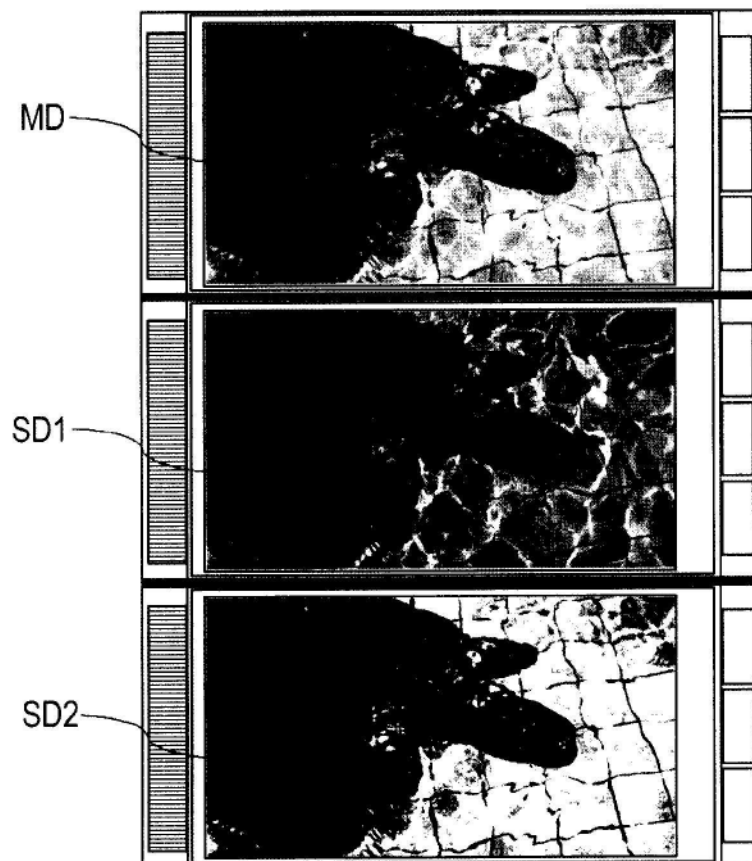


FIG. 41



FIG. 42

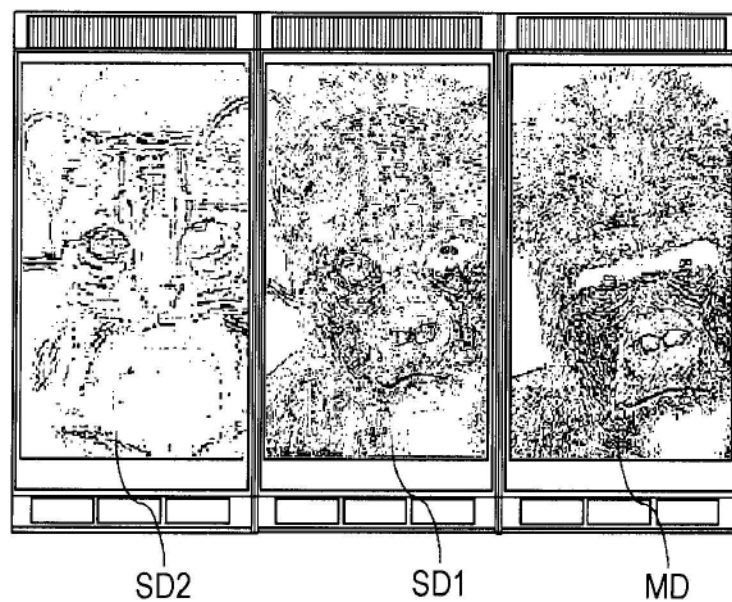


FIG. 43

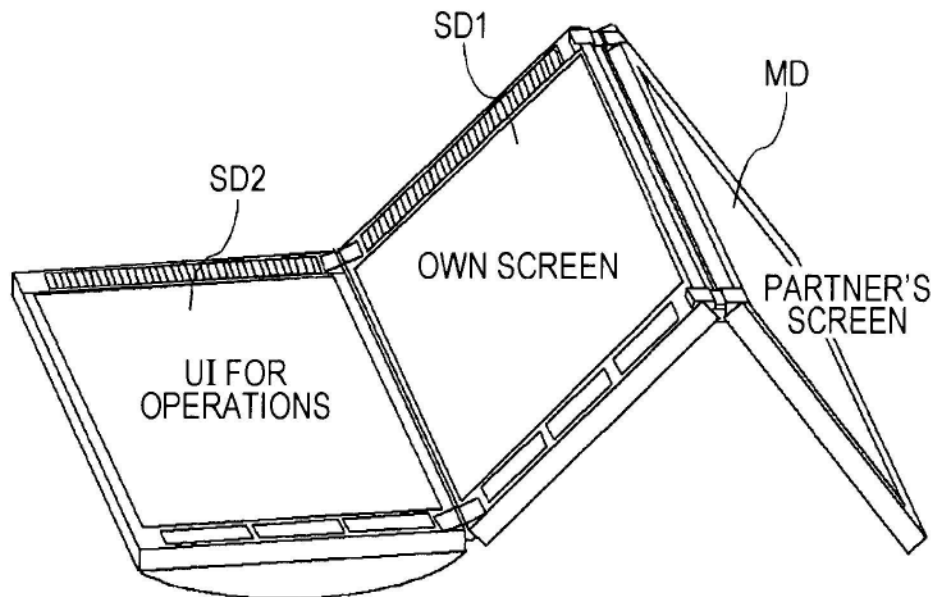


FIG. 44

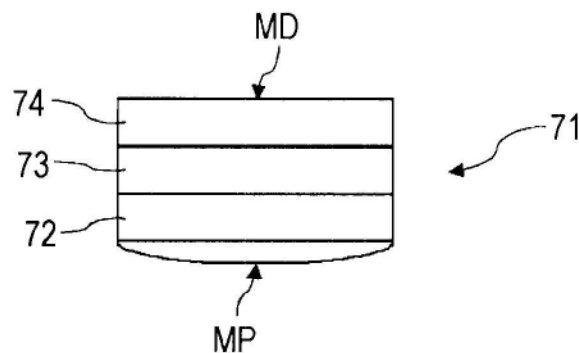


FIG. 45

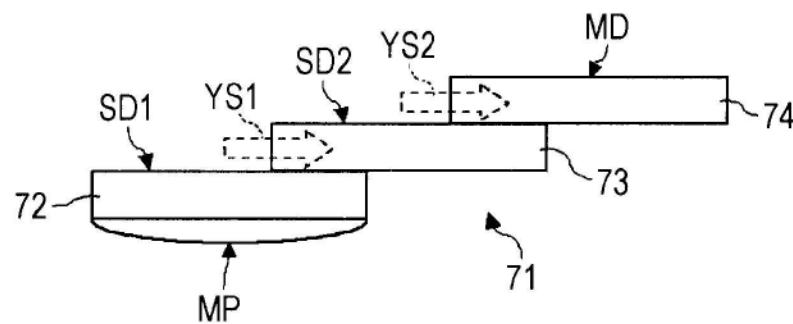


FIG. 46

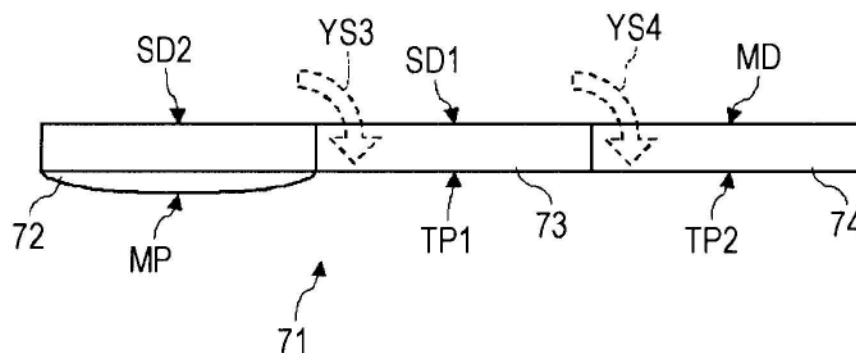


FIG. 47

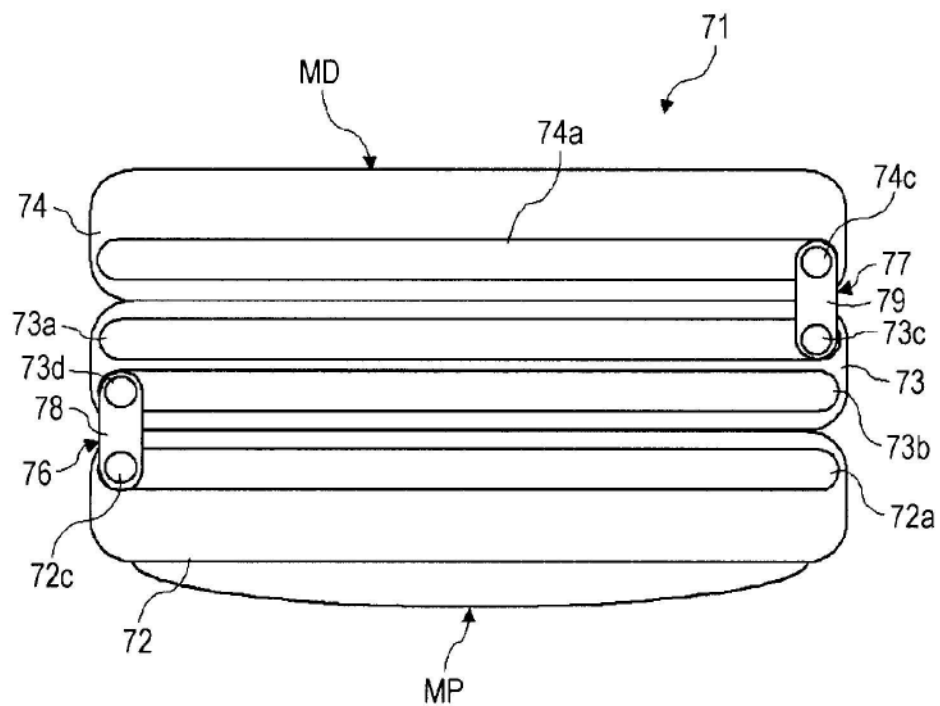


FIG. 48

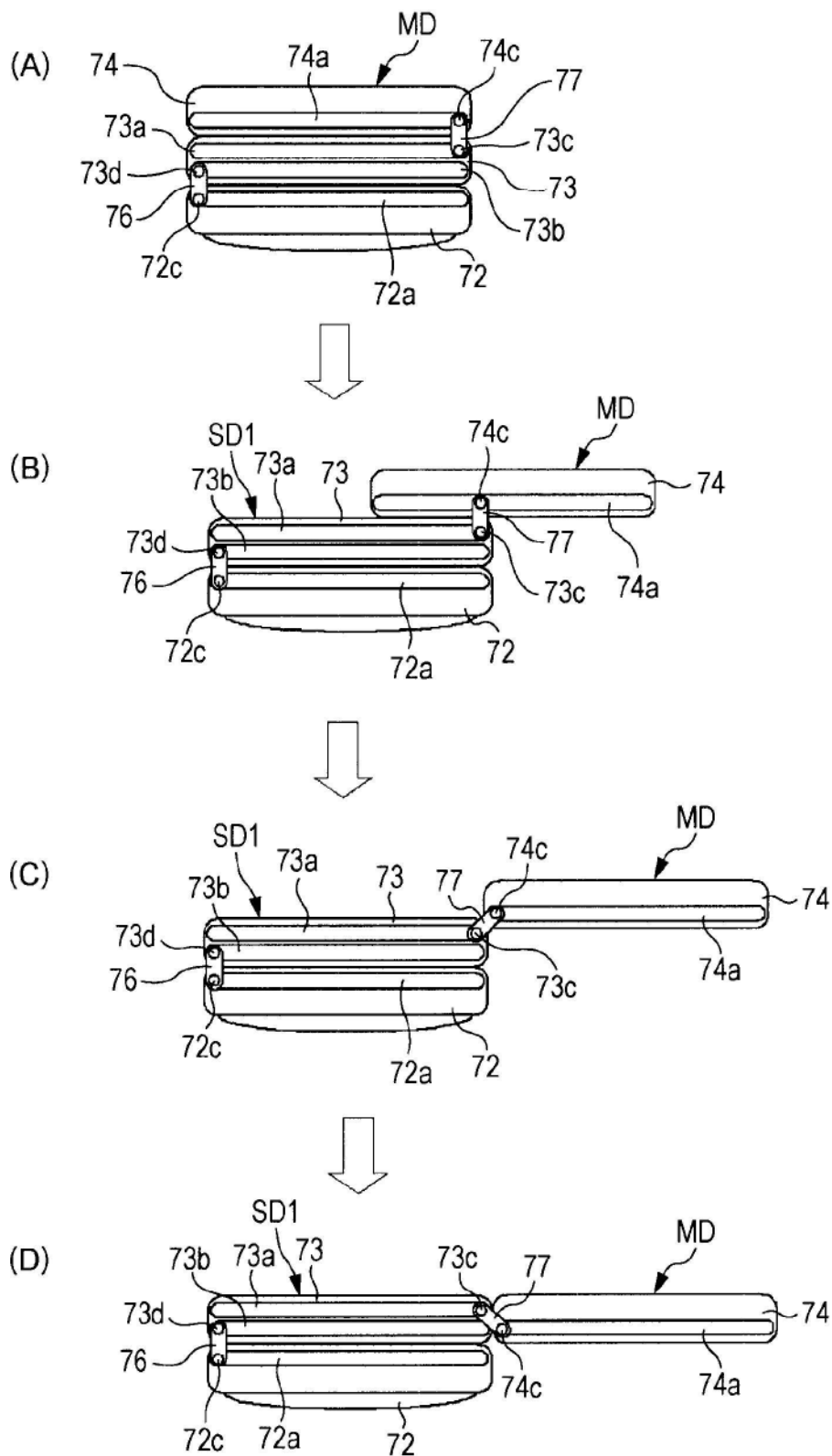


FIG. 49

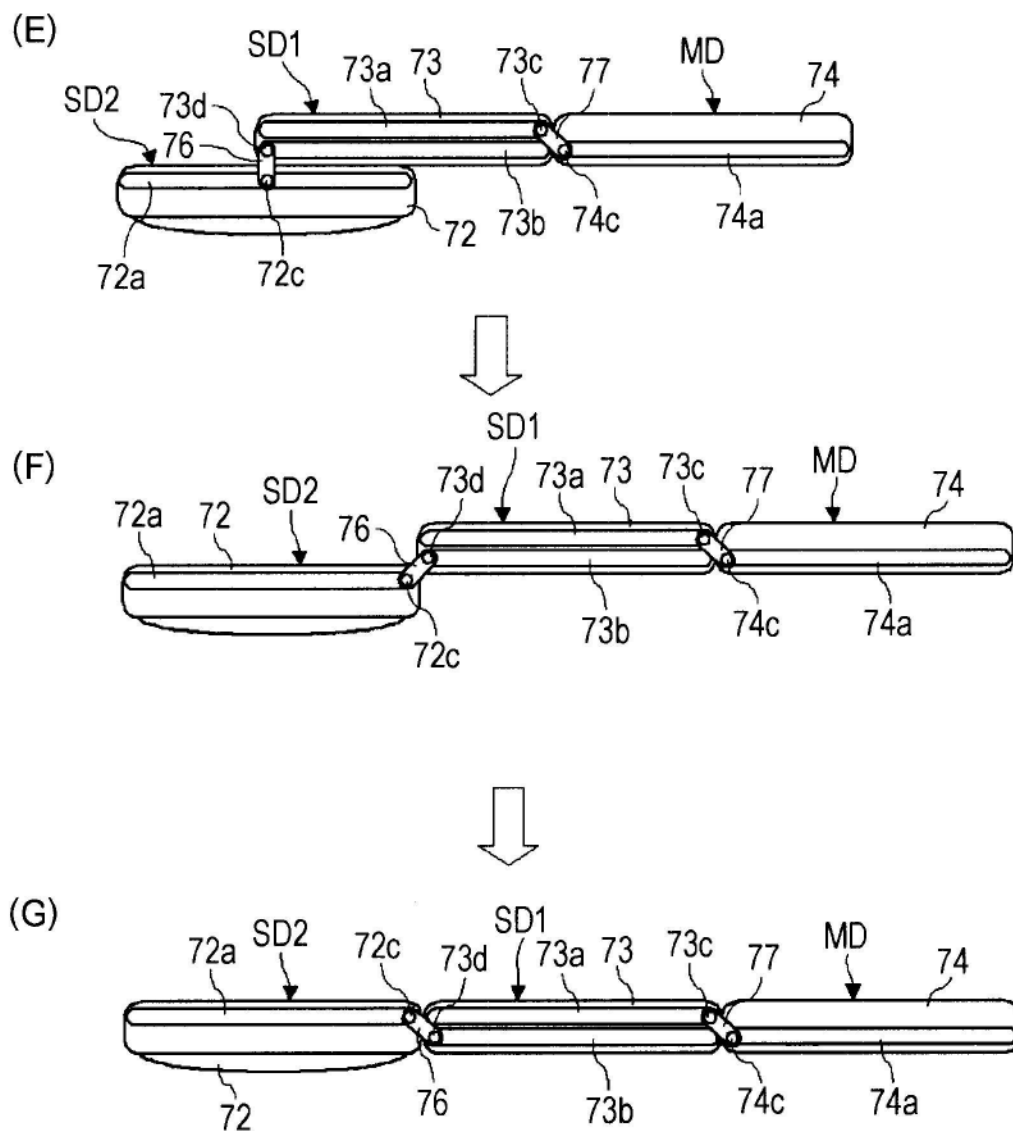


FIG. 50

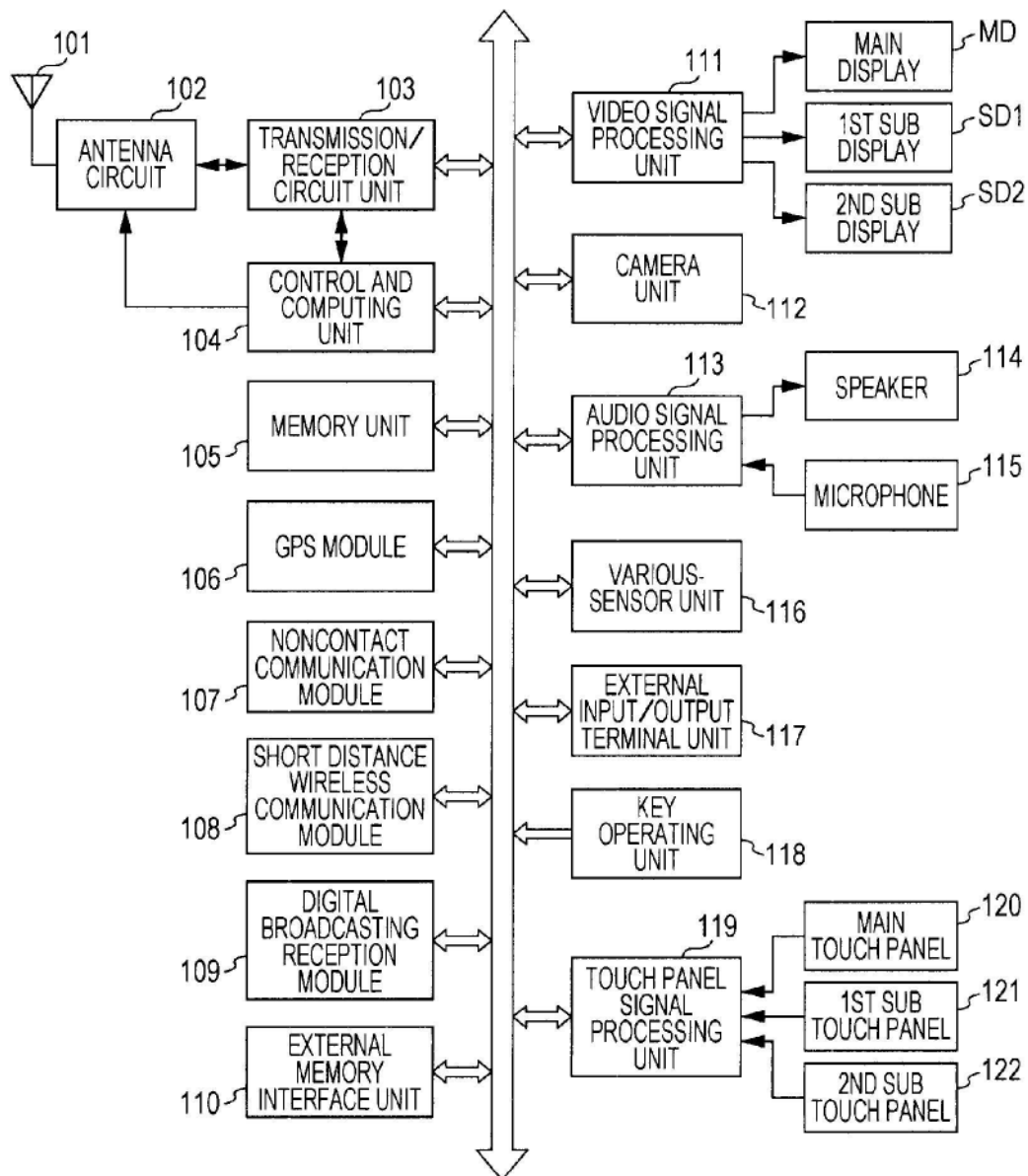


FIG. 51

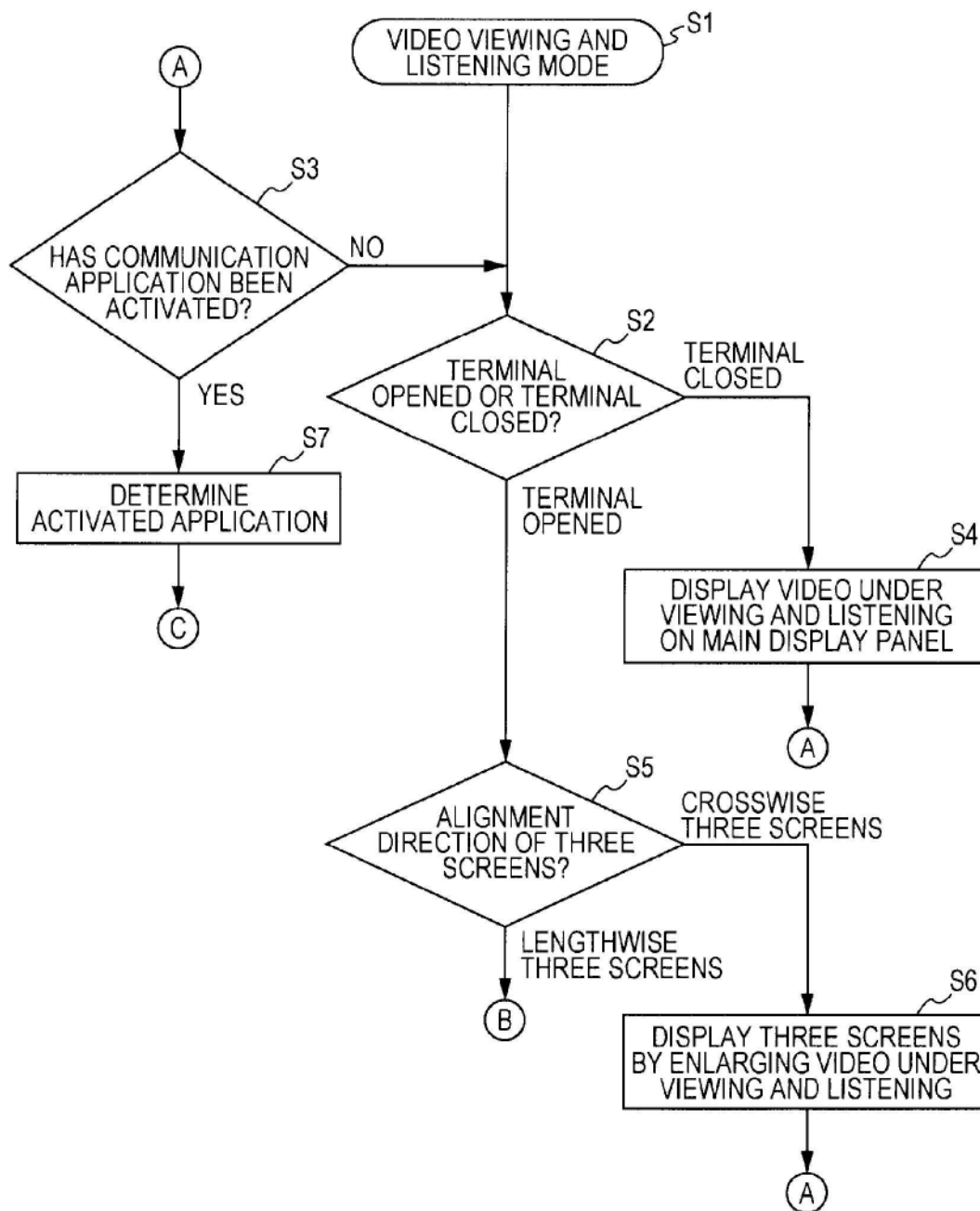


FIG. 52

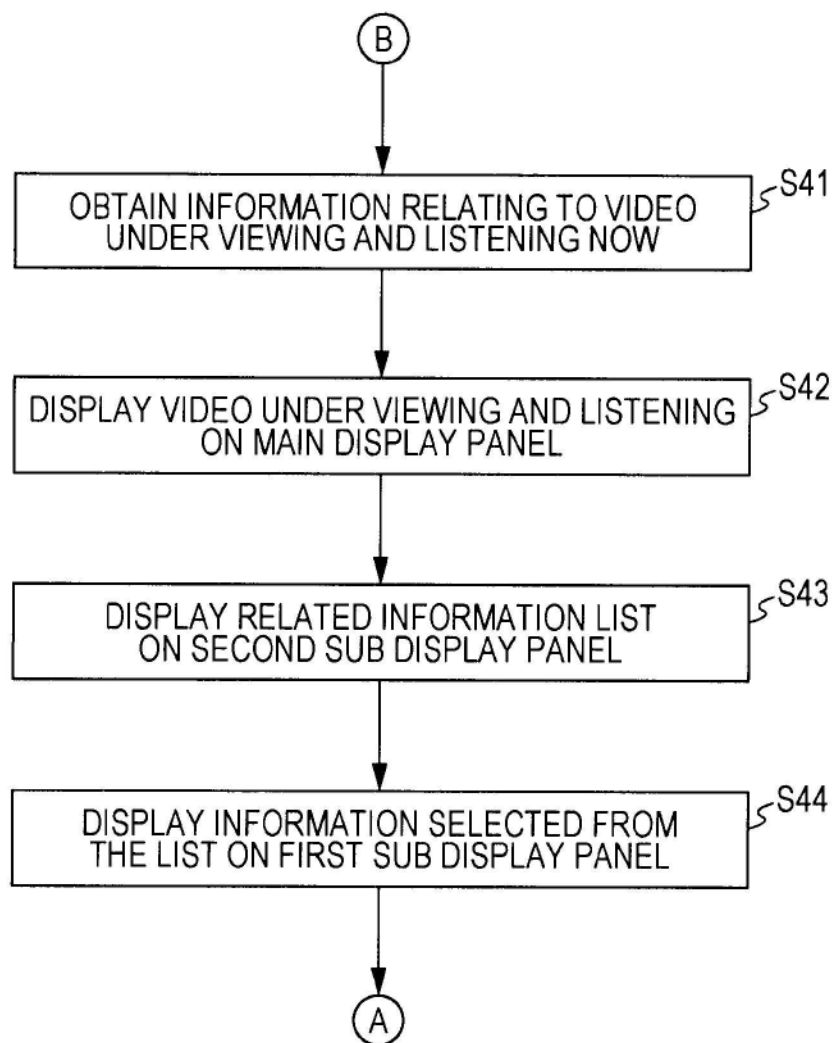


FIG. 53

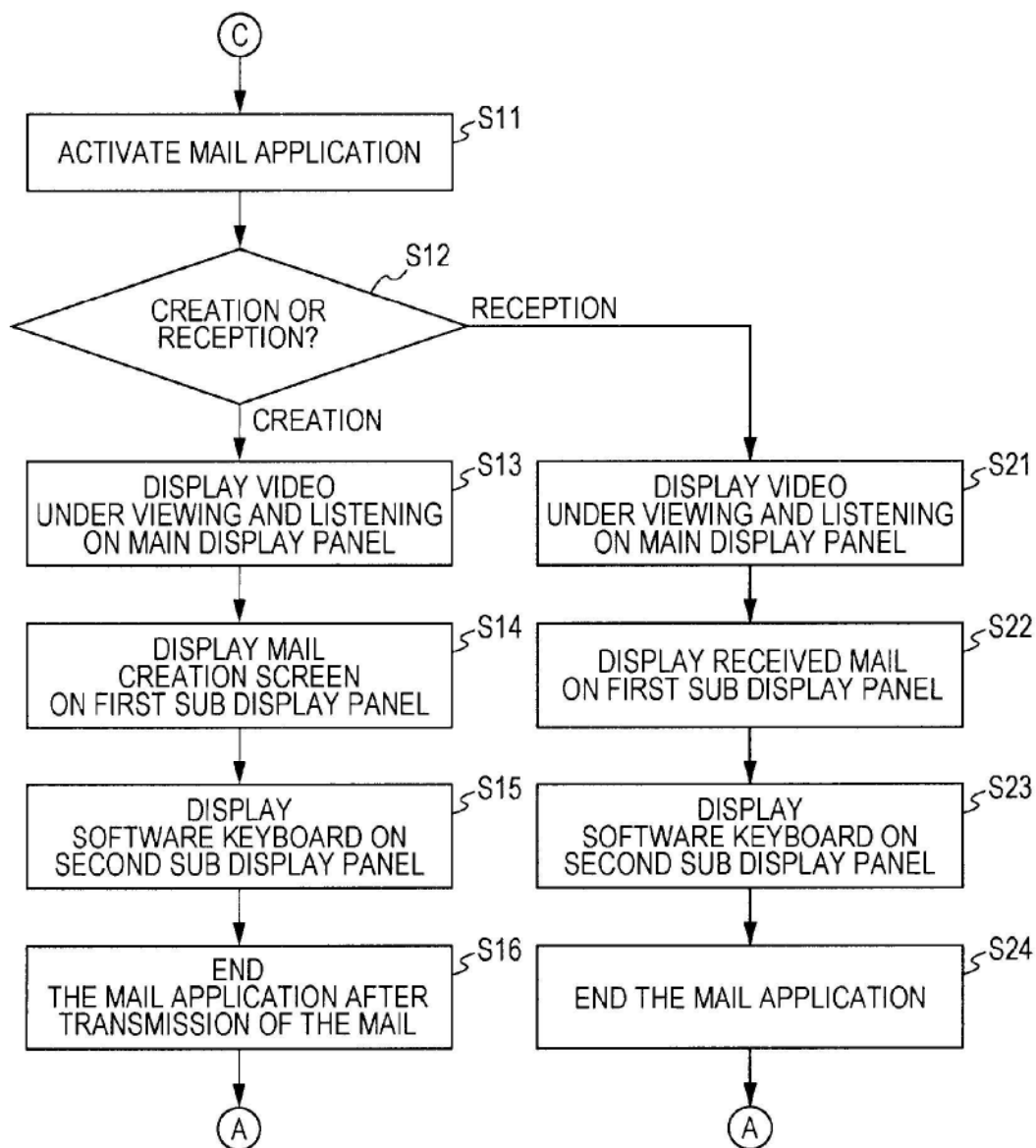


FIG. 54

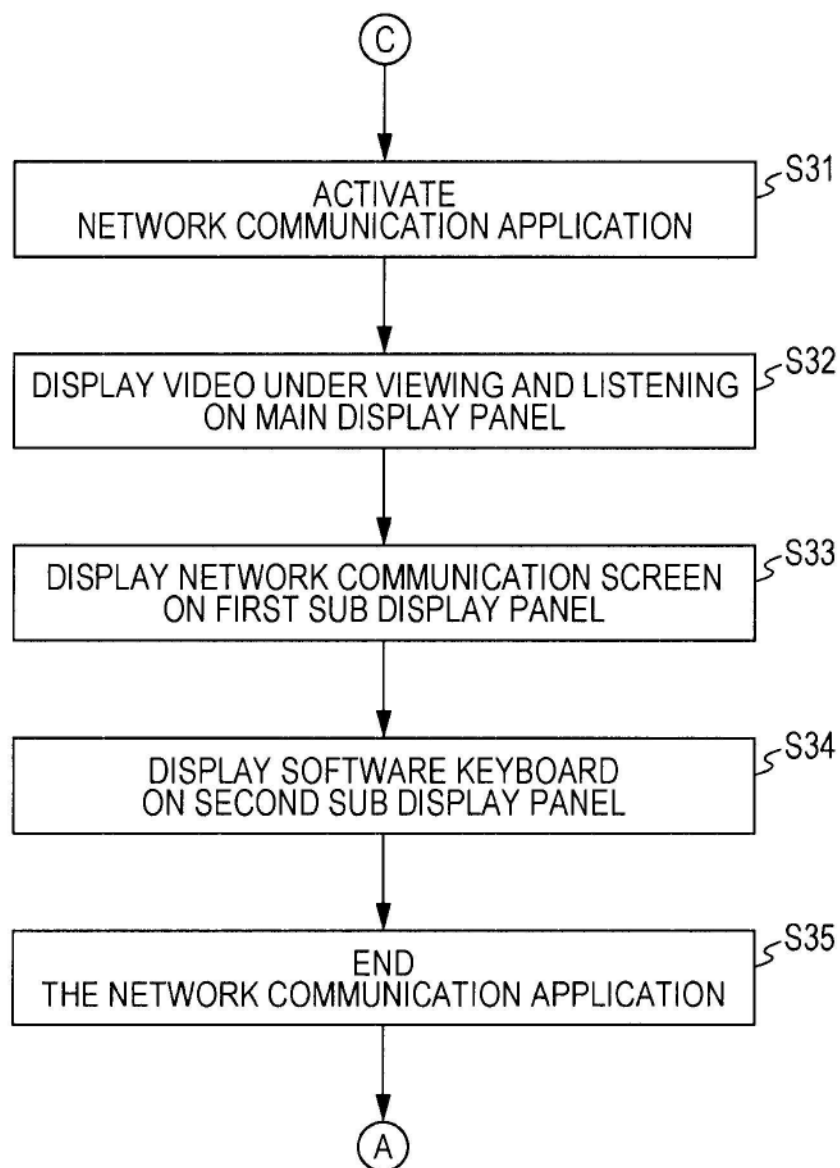


FIG. 55

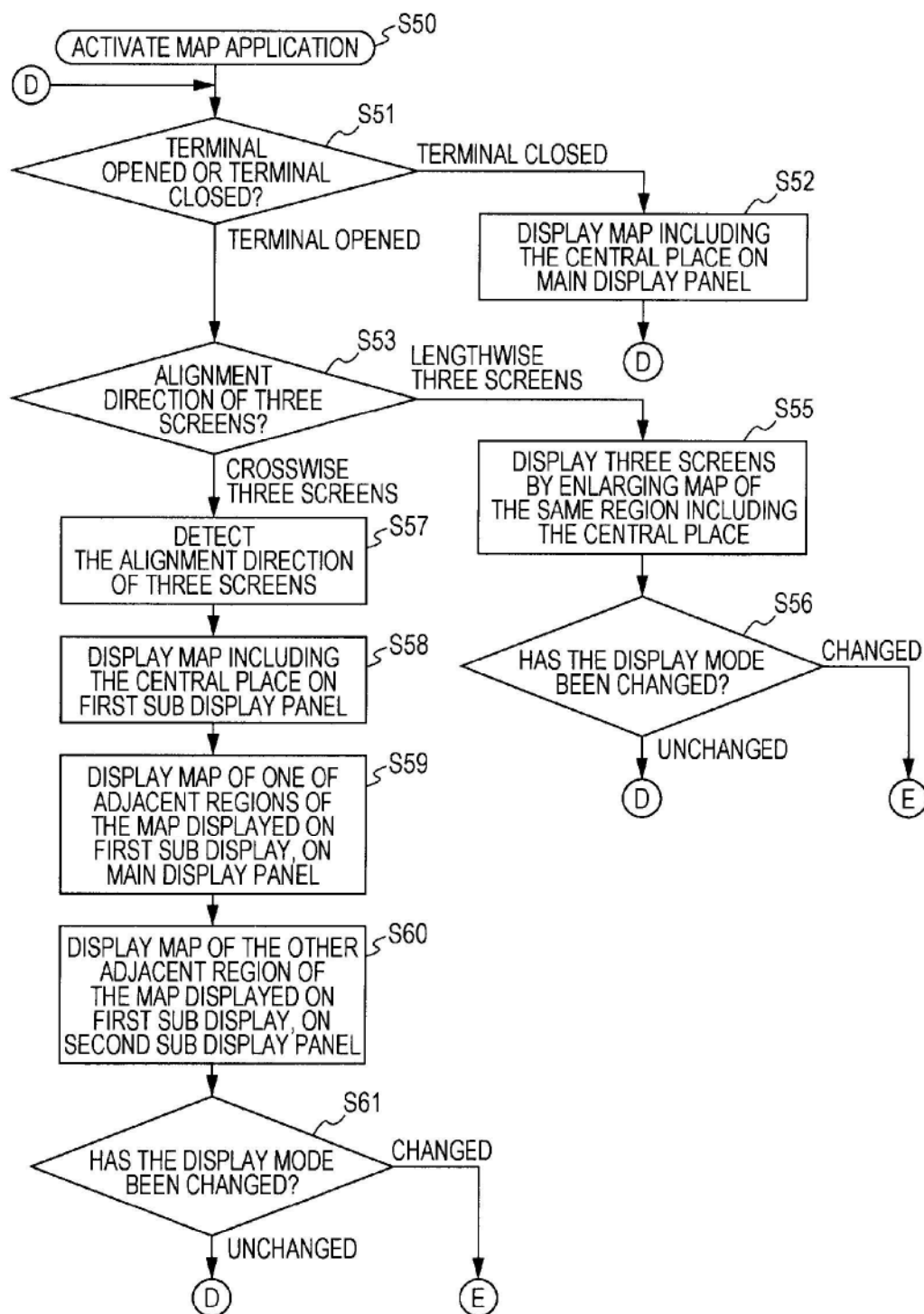


FIG. 56

