

FIG. 1

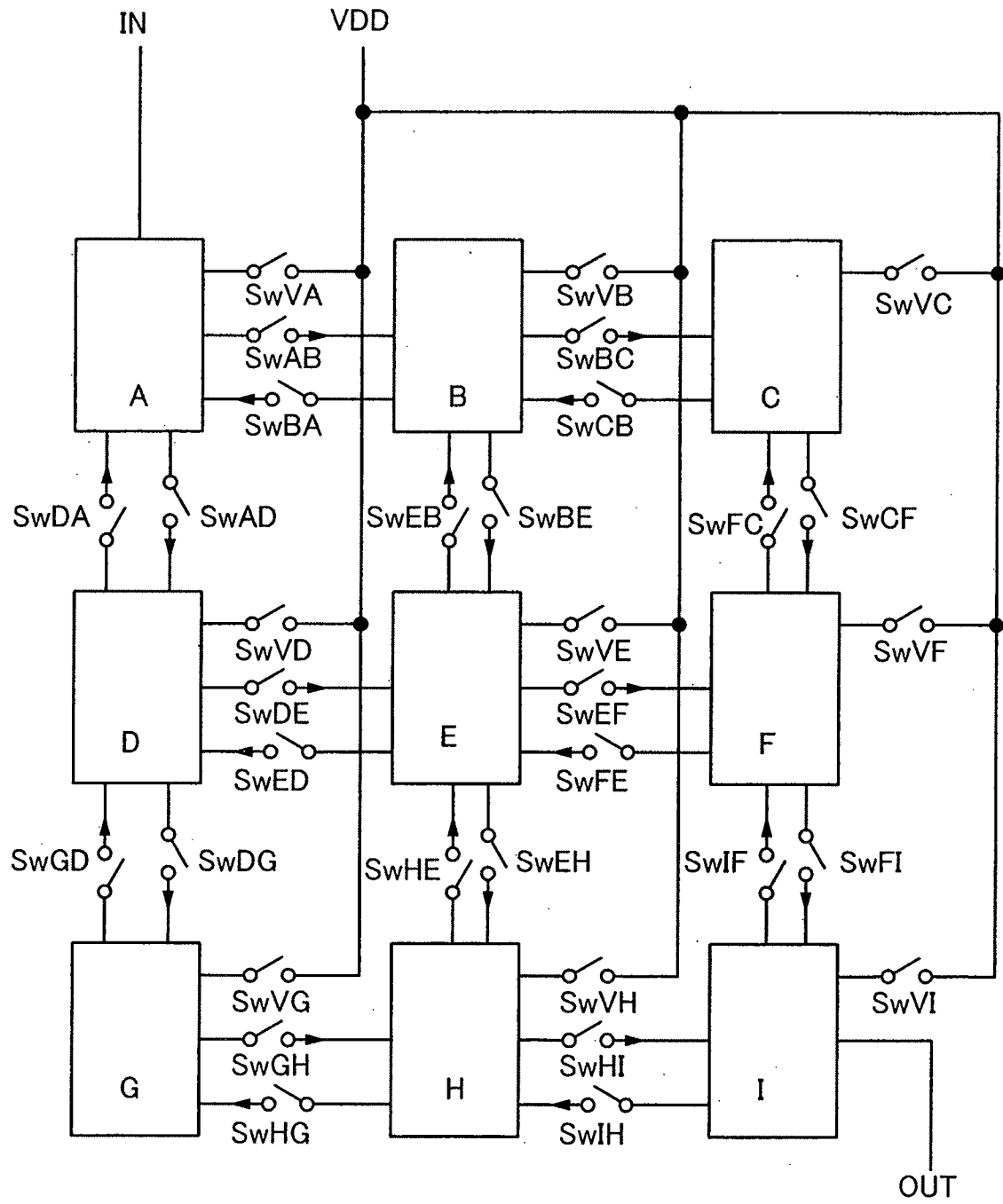


FIG. 2A

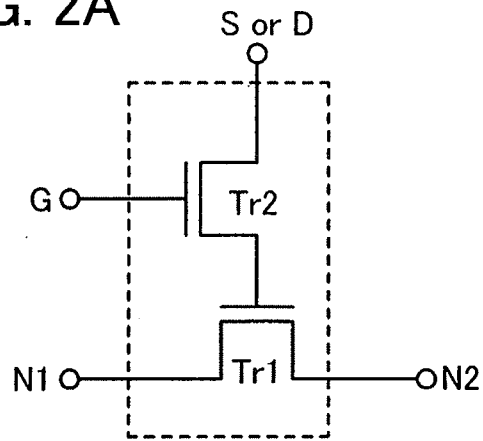


FIG. 2B

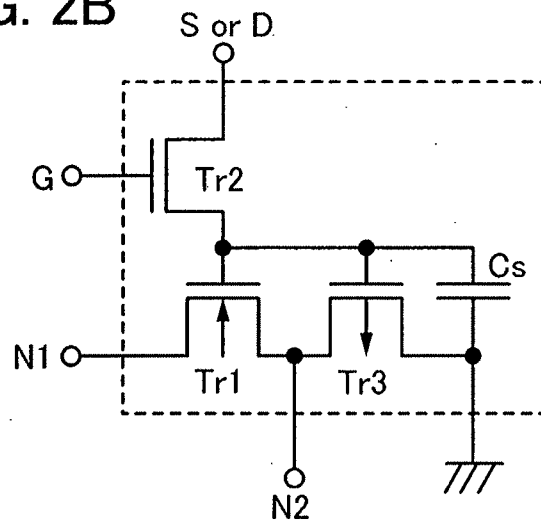


FIG. 2C

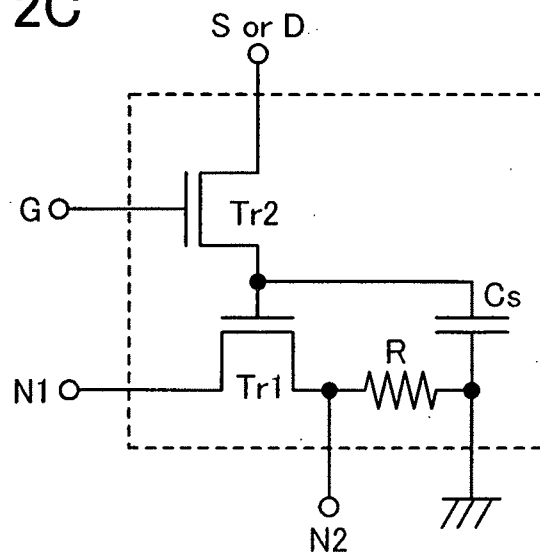


FIG. 3

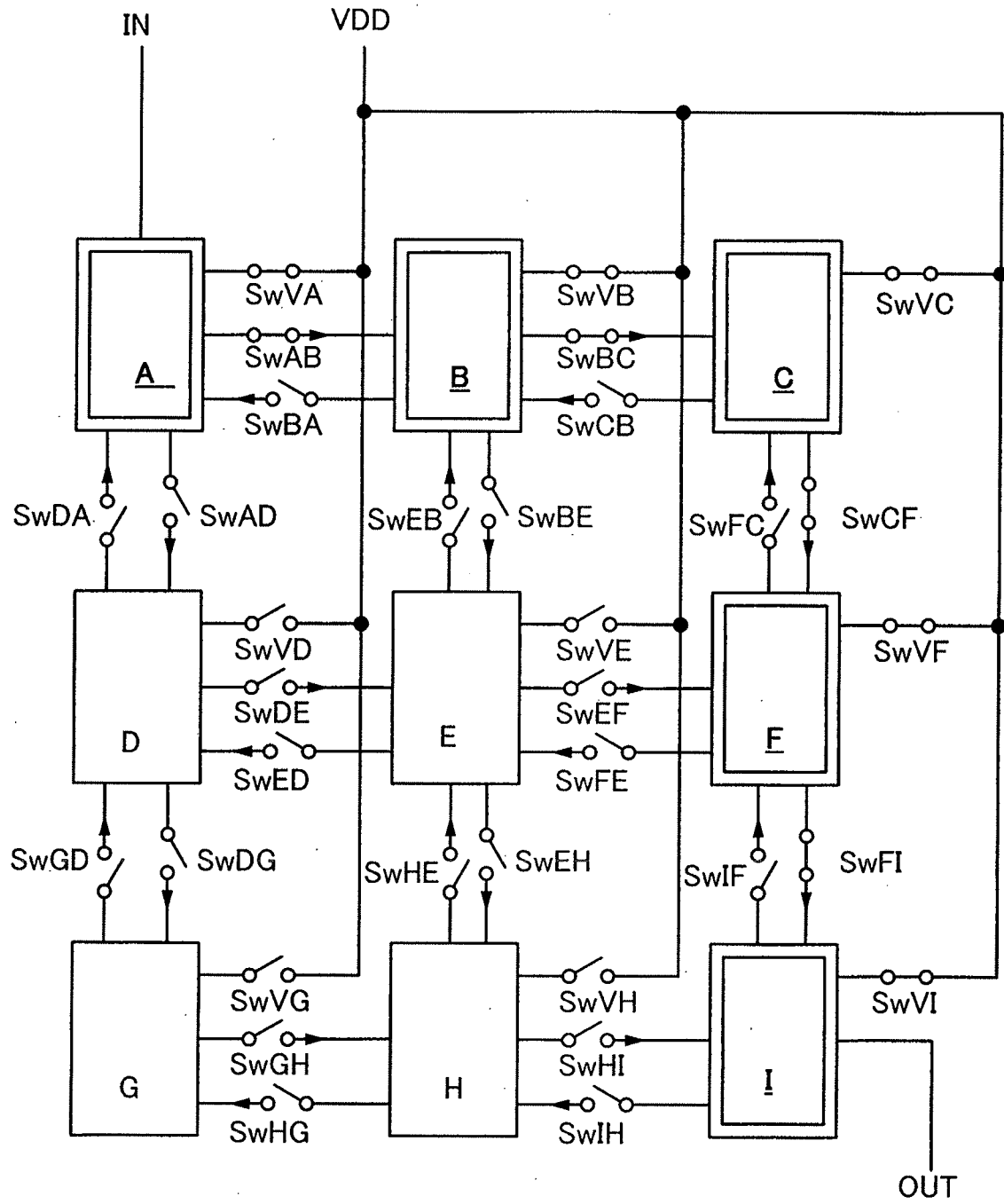


FIG. 4

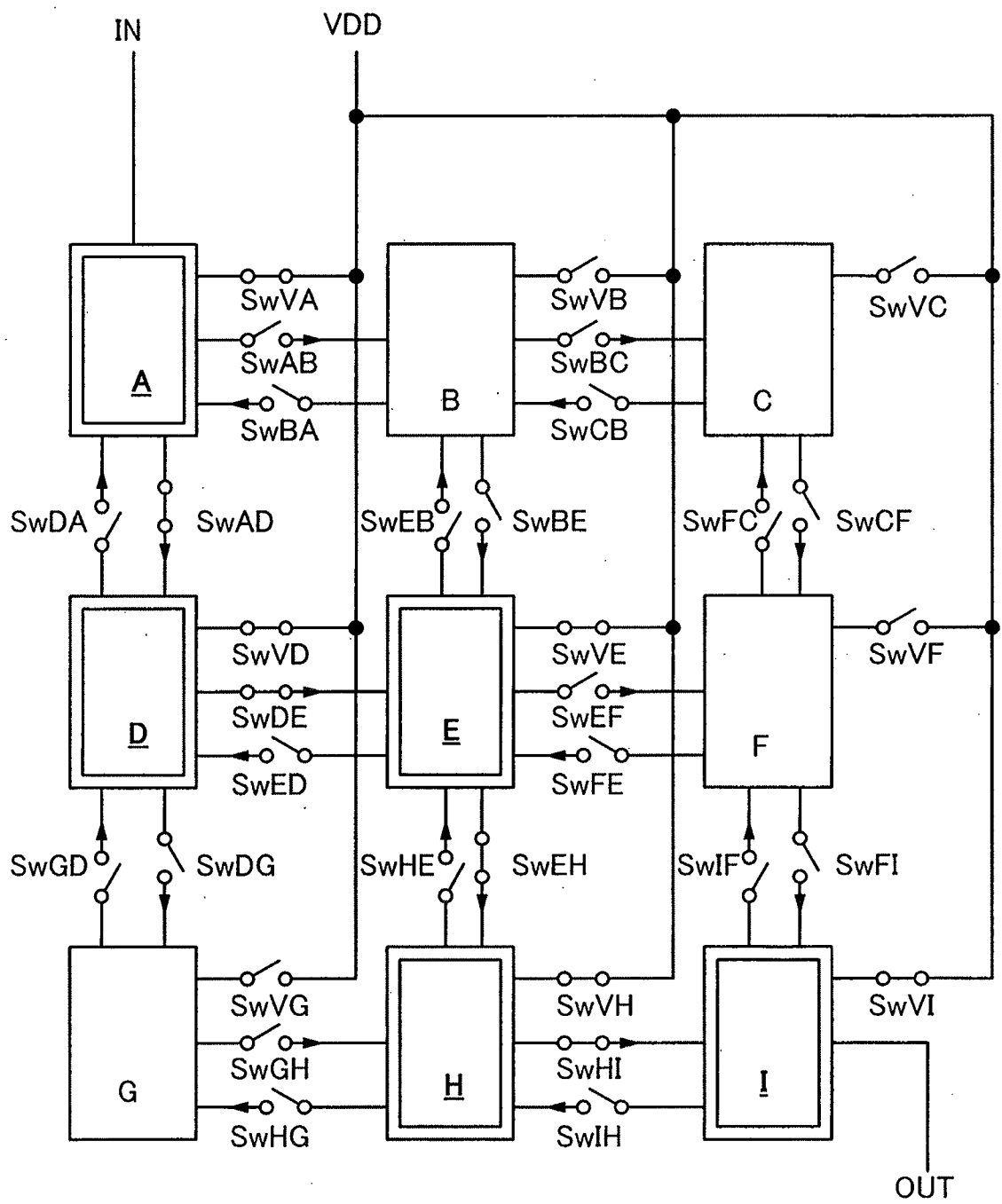


FIG. 5

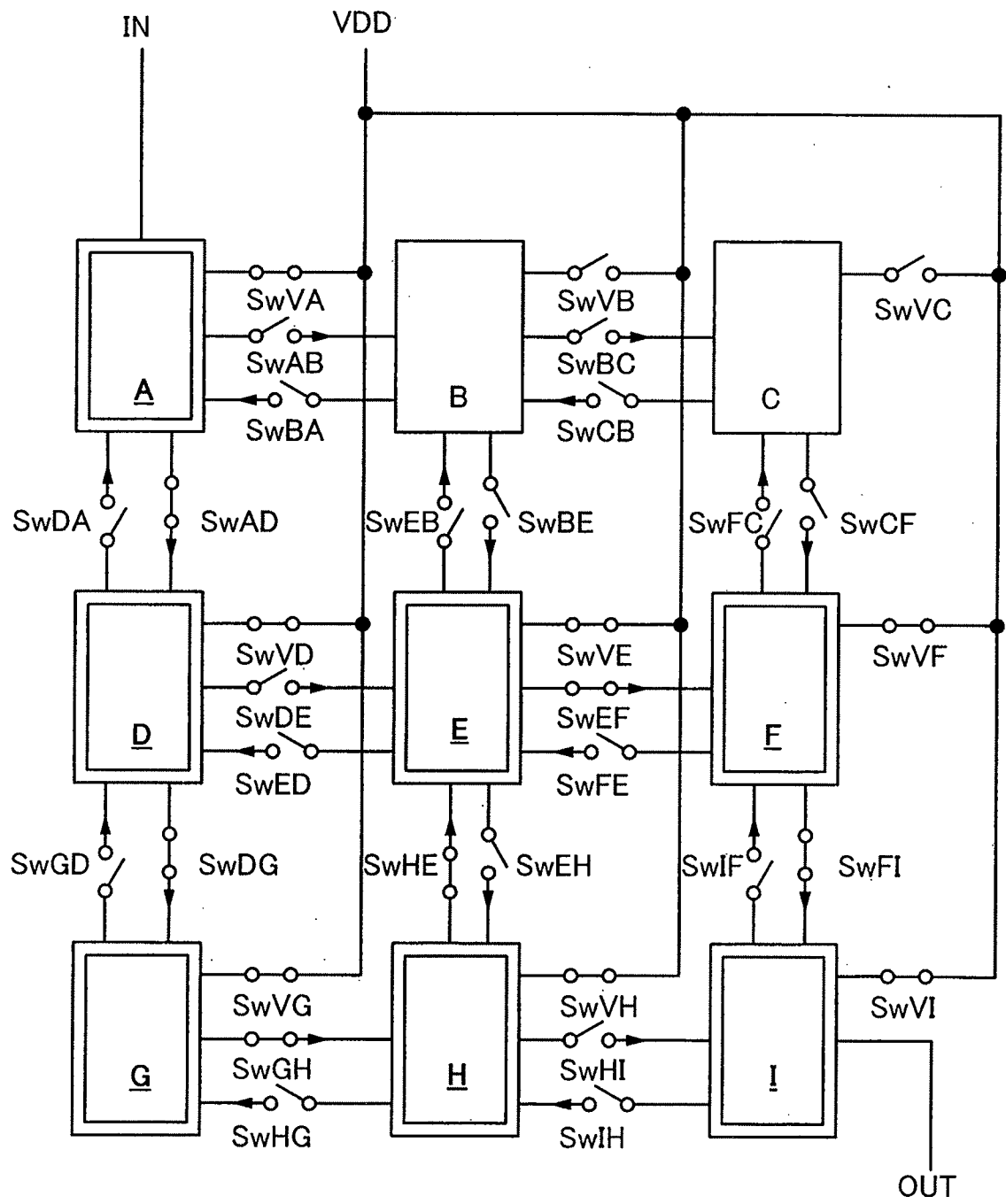


FIG. 6

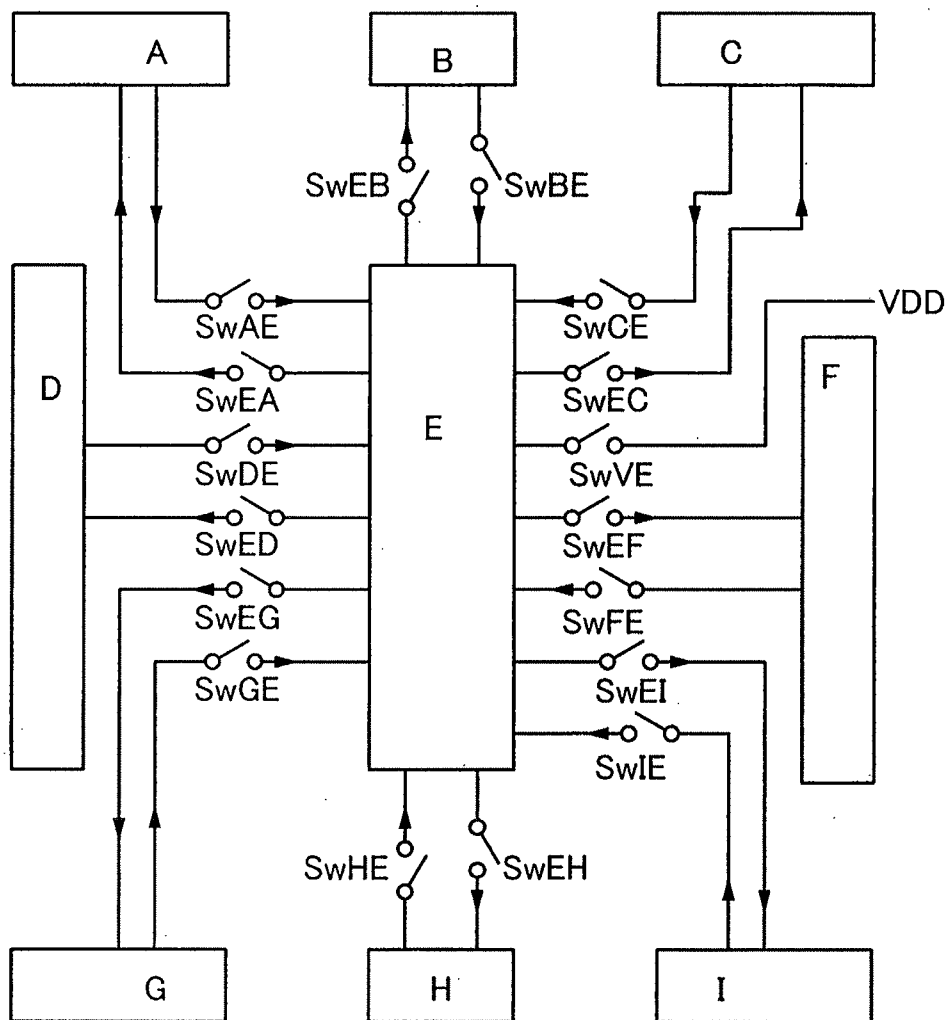
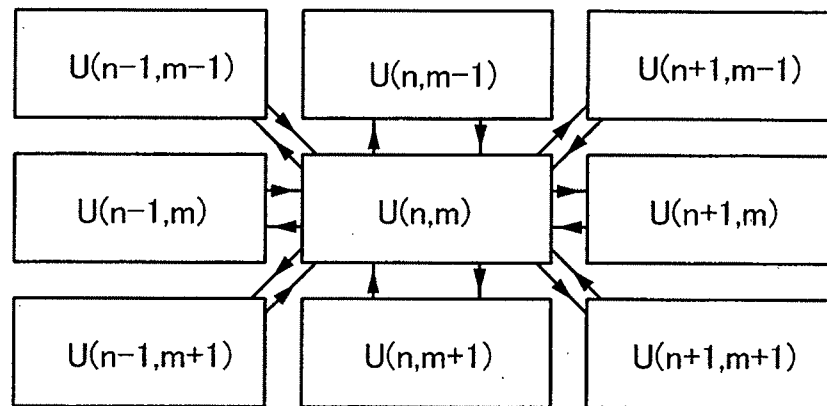


FIG. 7



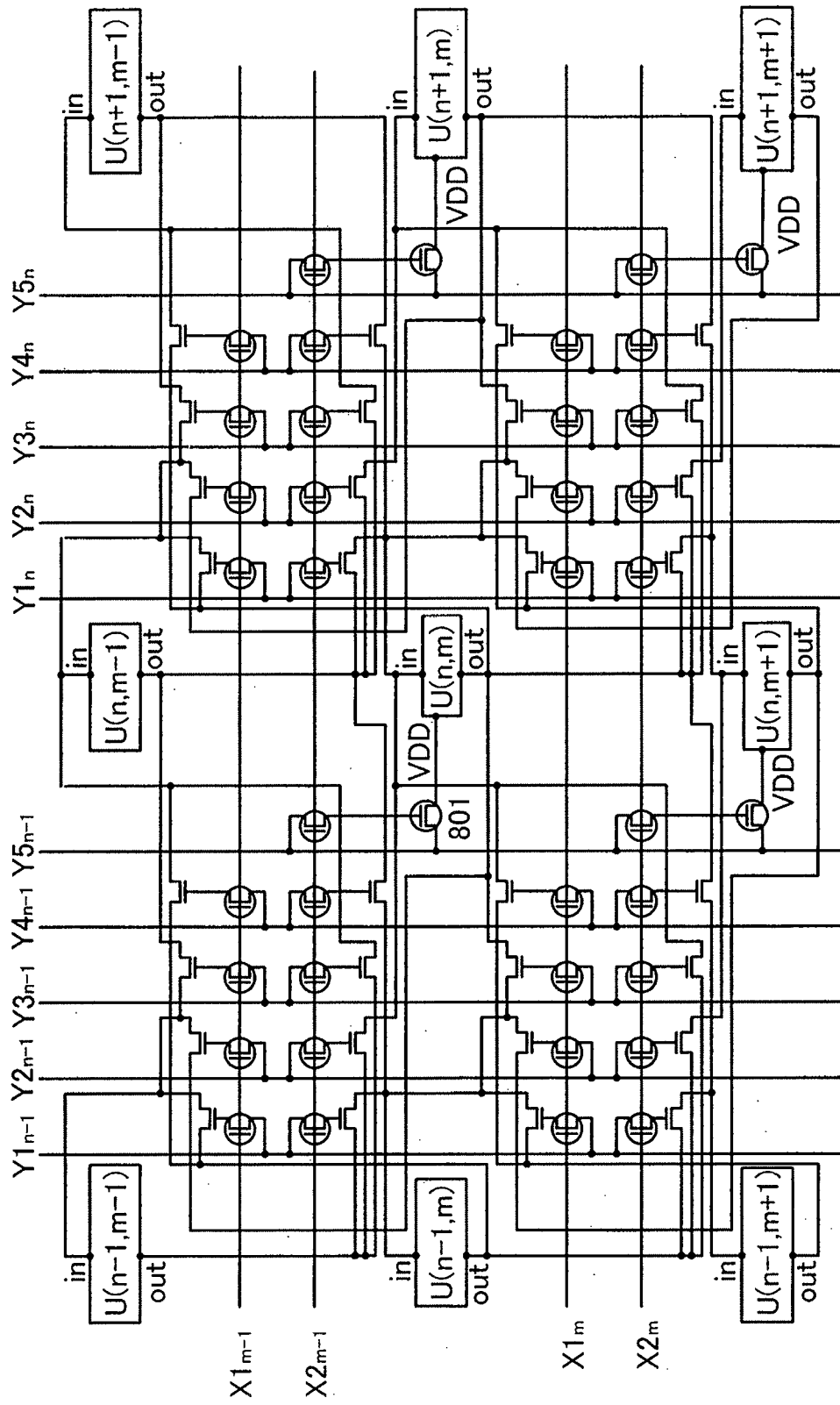


FIG. 8

FIG. 9A

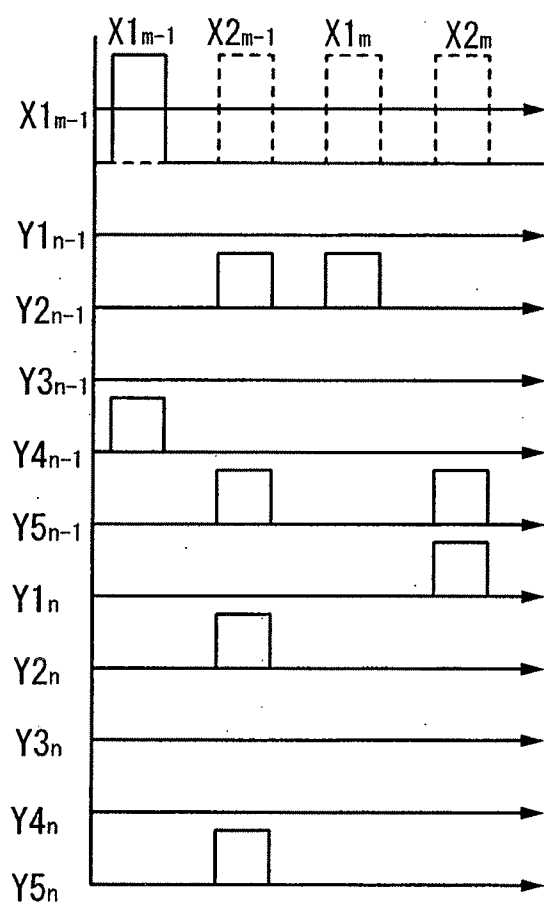


FIG. 9B

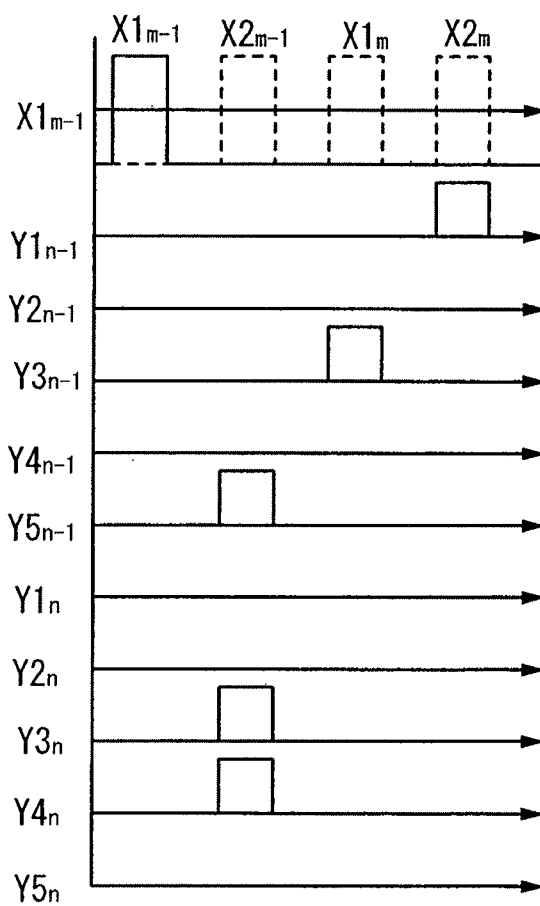


FIG. 10A

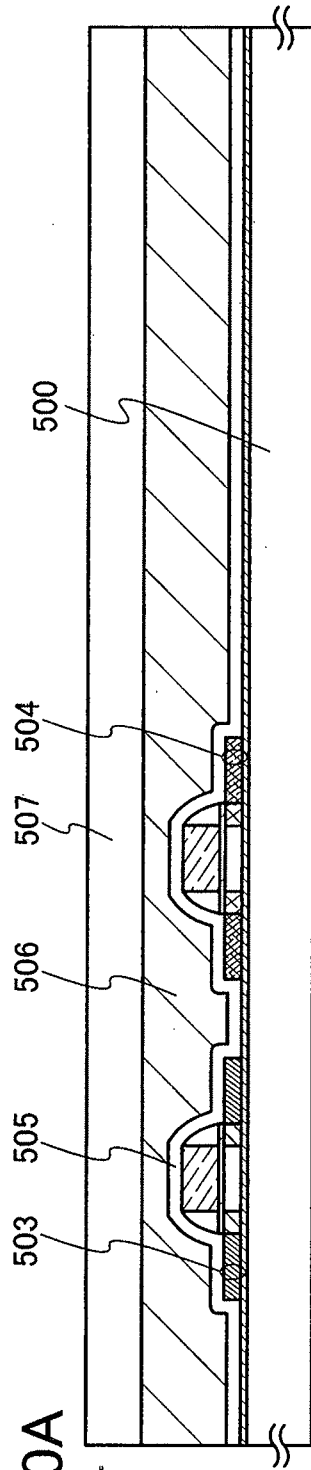


FIG. 10B

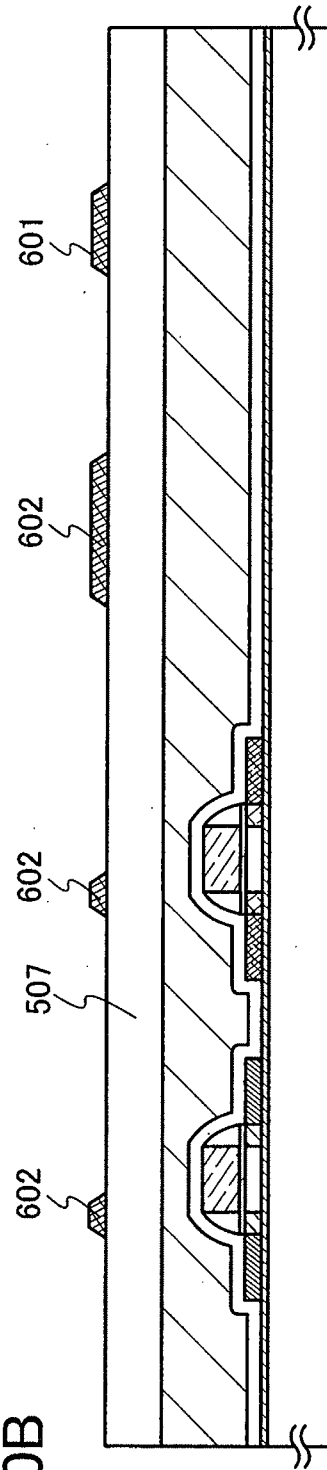


FIG. 10C

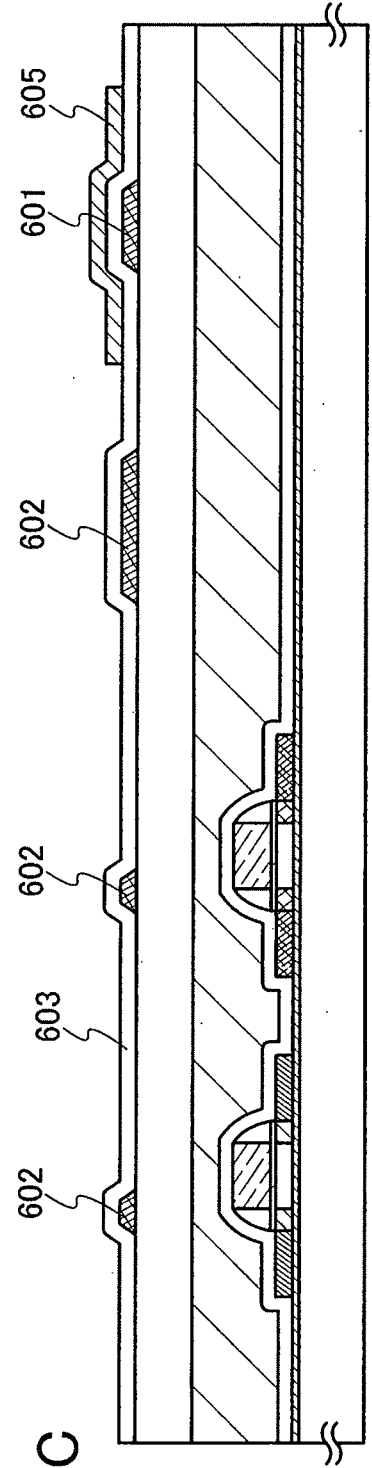


FIG. 11A

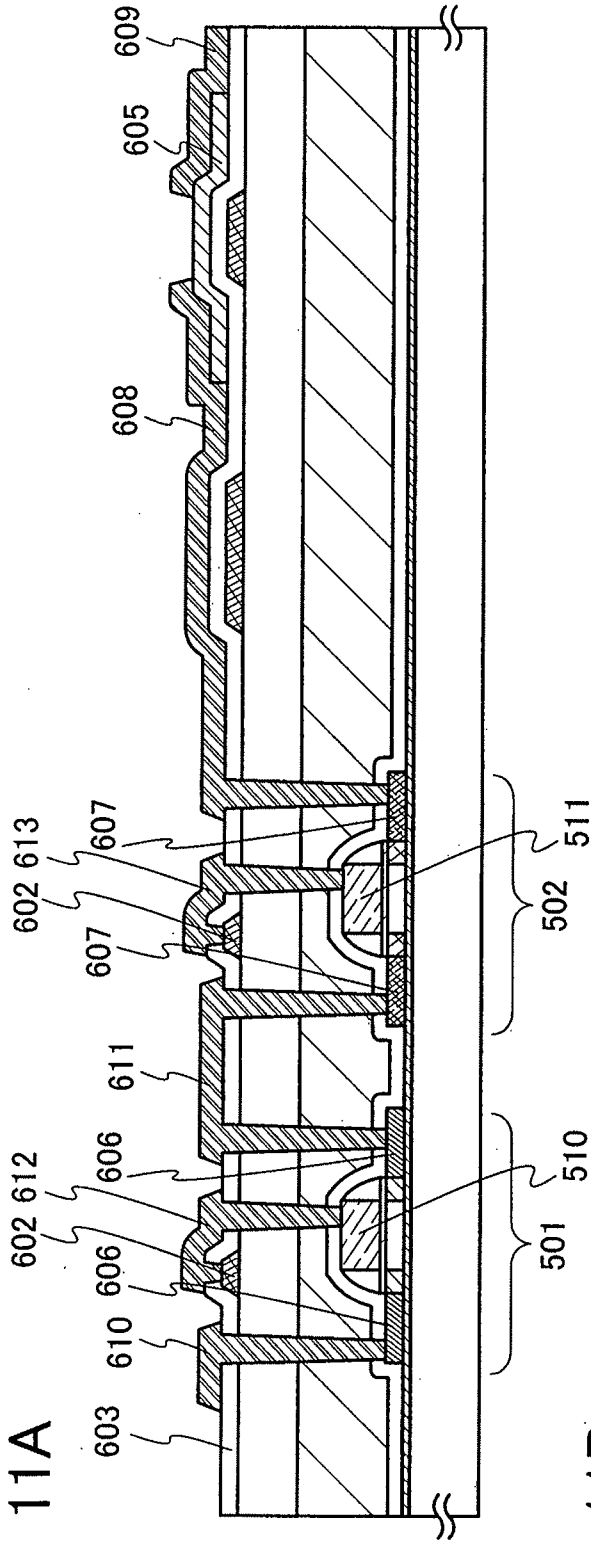


FIG. 11B

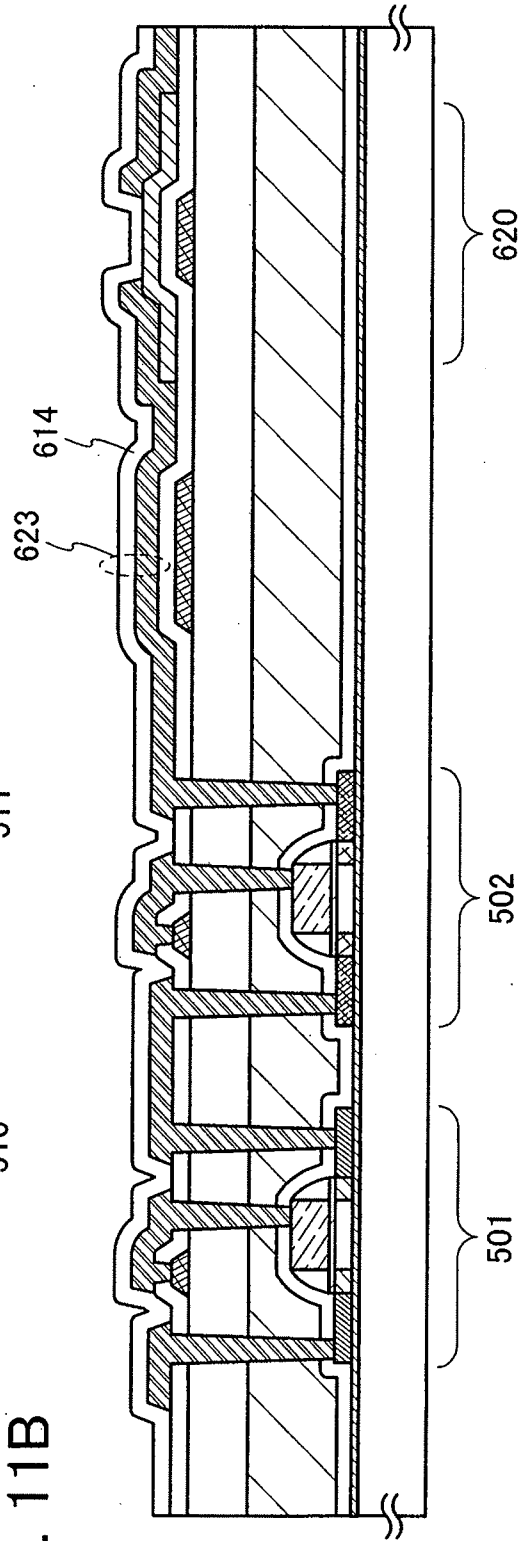


FIG. 12A

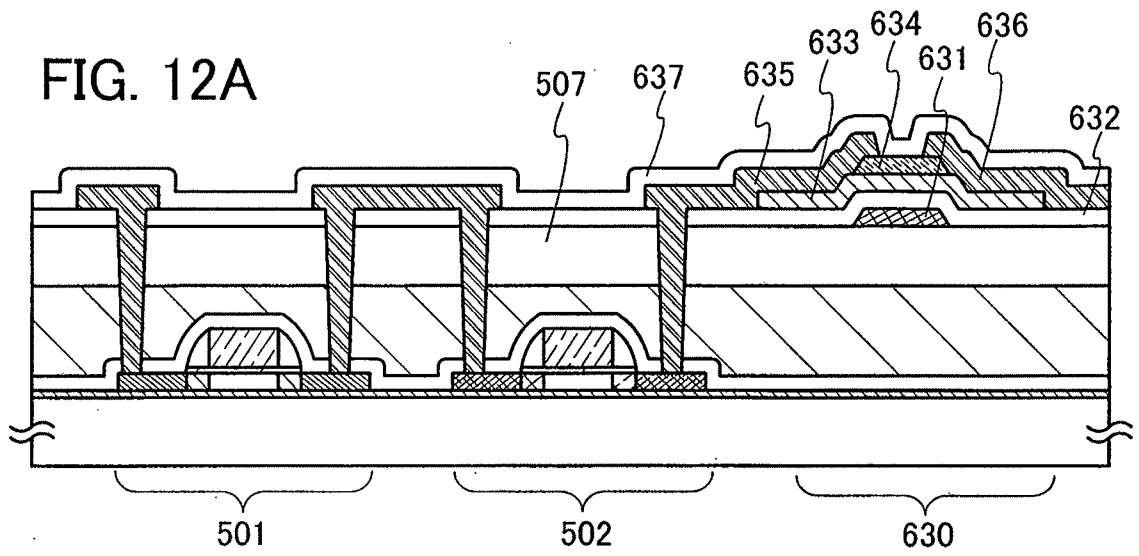


FIG. 12B

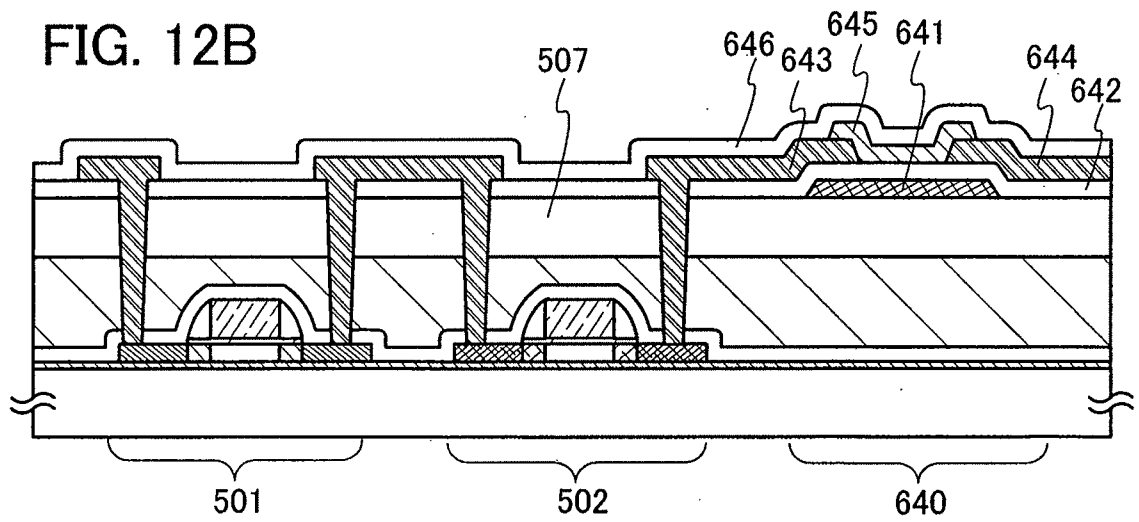


FIG. 12C

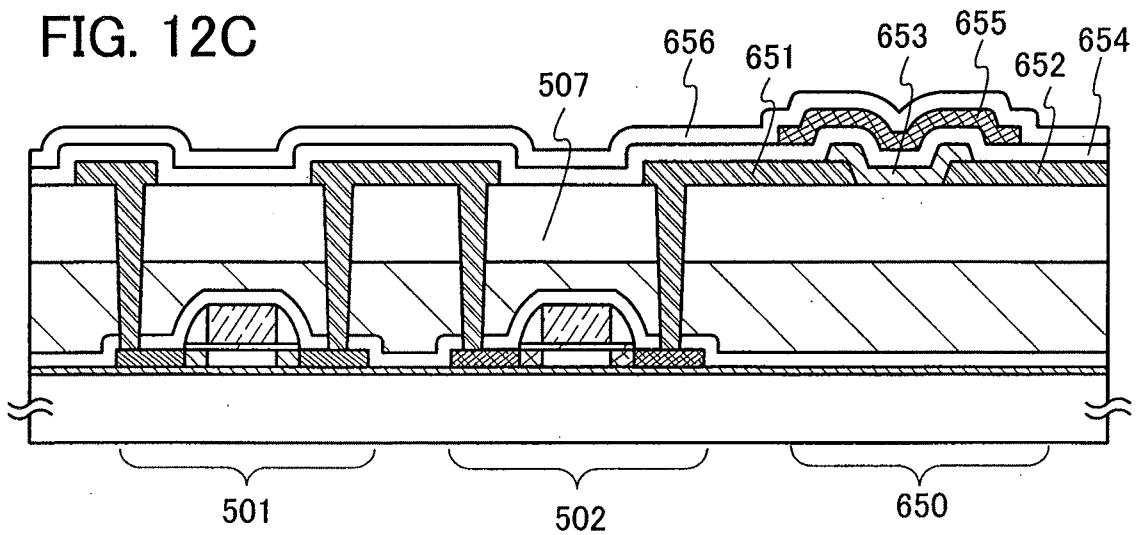


FIG. 13

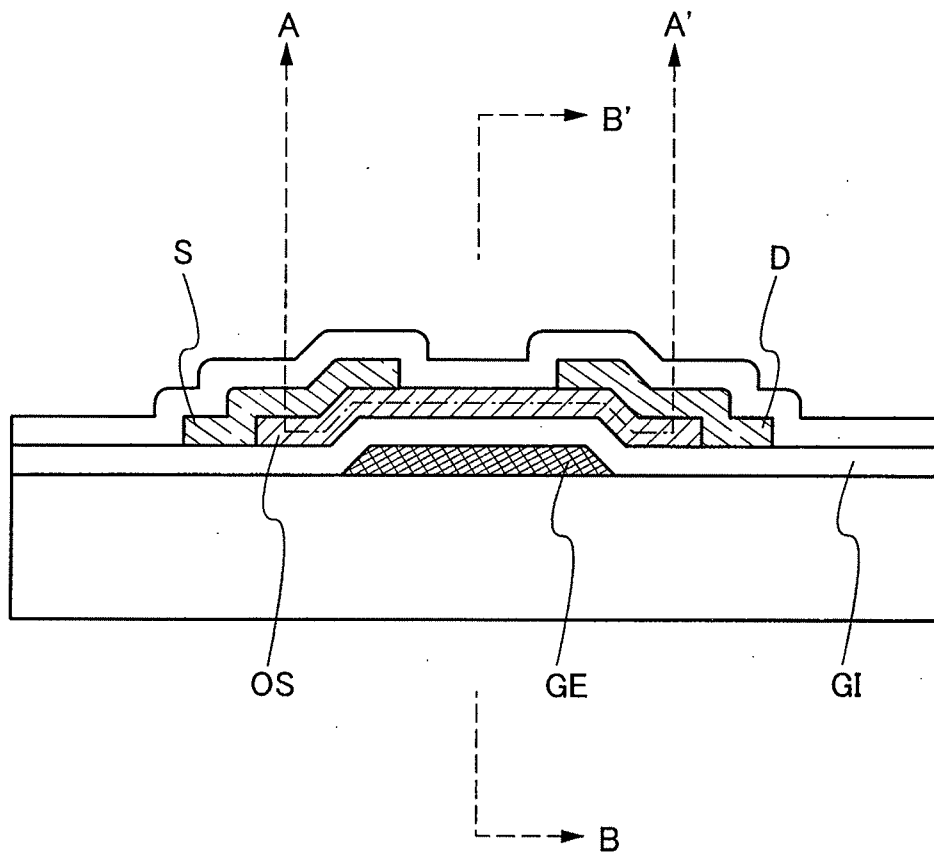


FIG. 14

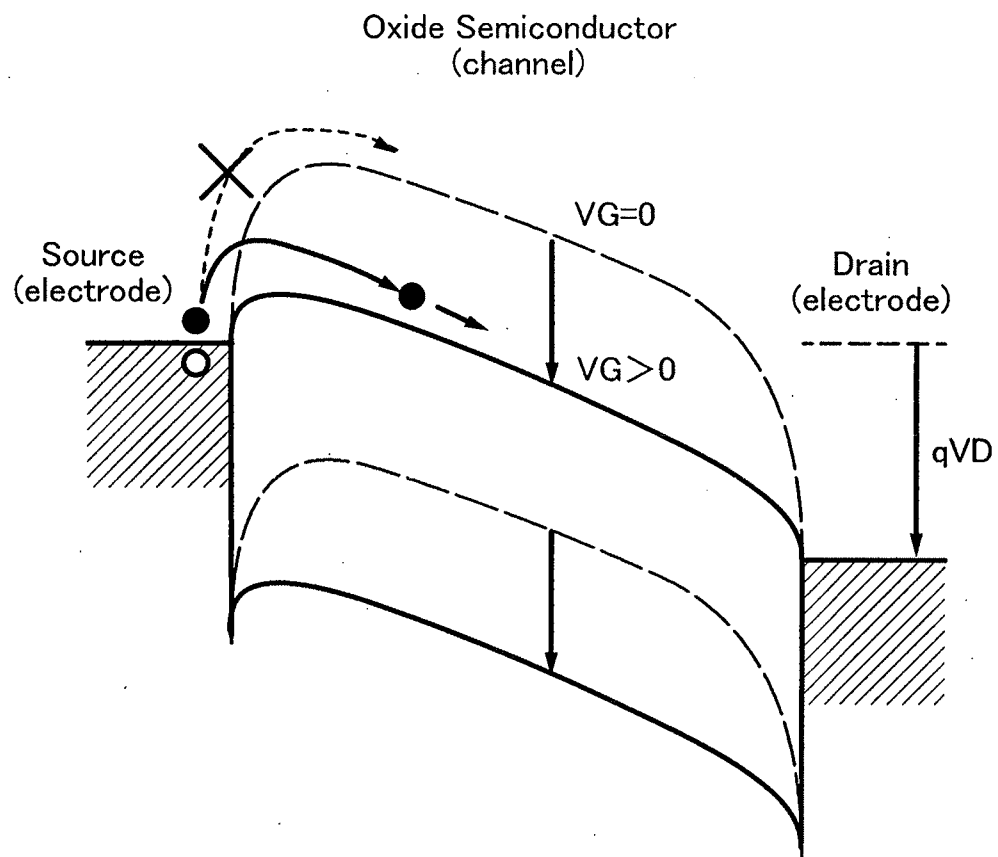


FIG. 15A

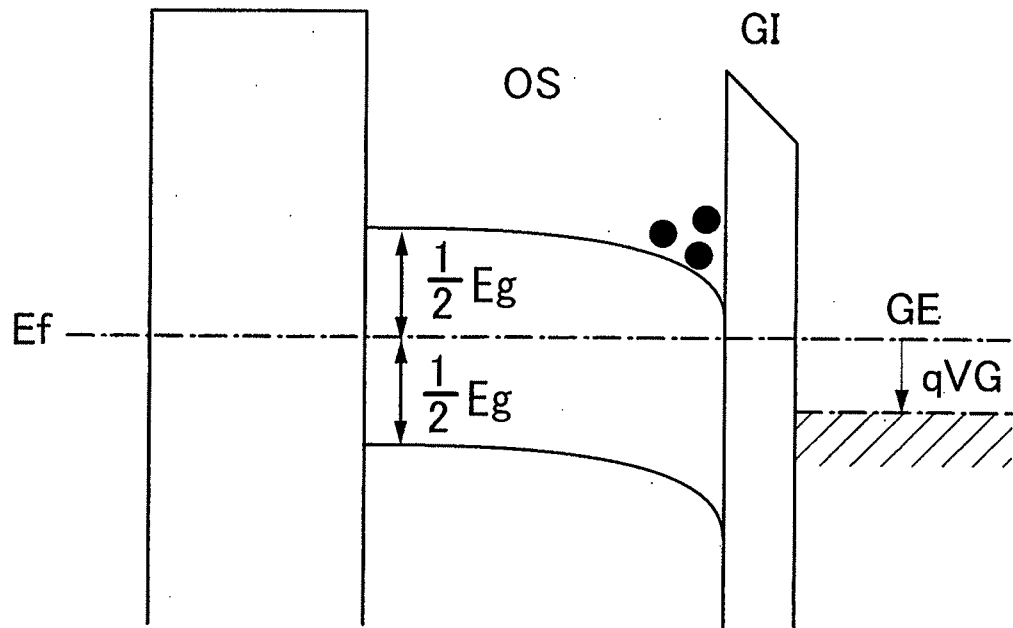
Energy band diagram along the cross section B-B' ($V_G > 0$)

FIG. 15B

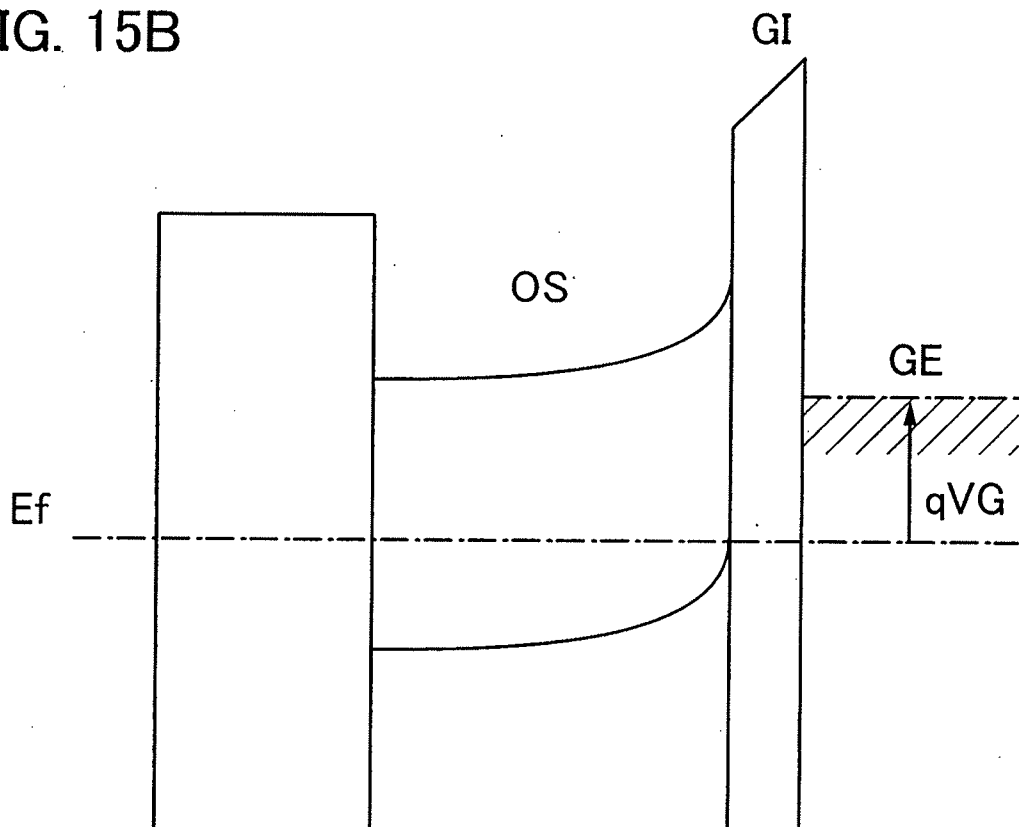
Energy band diagram along the cross section B-B' ($V_G < 0$)

FIG. 16

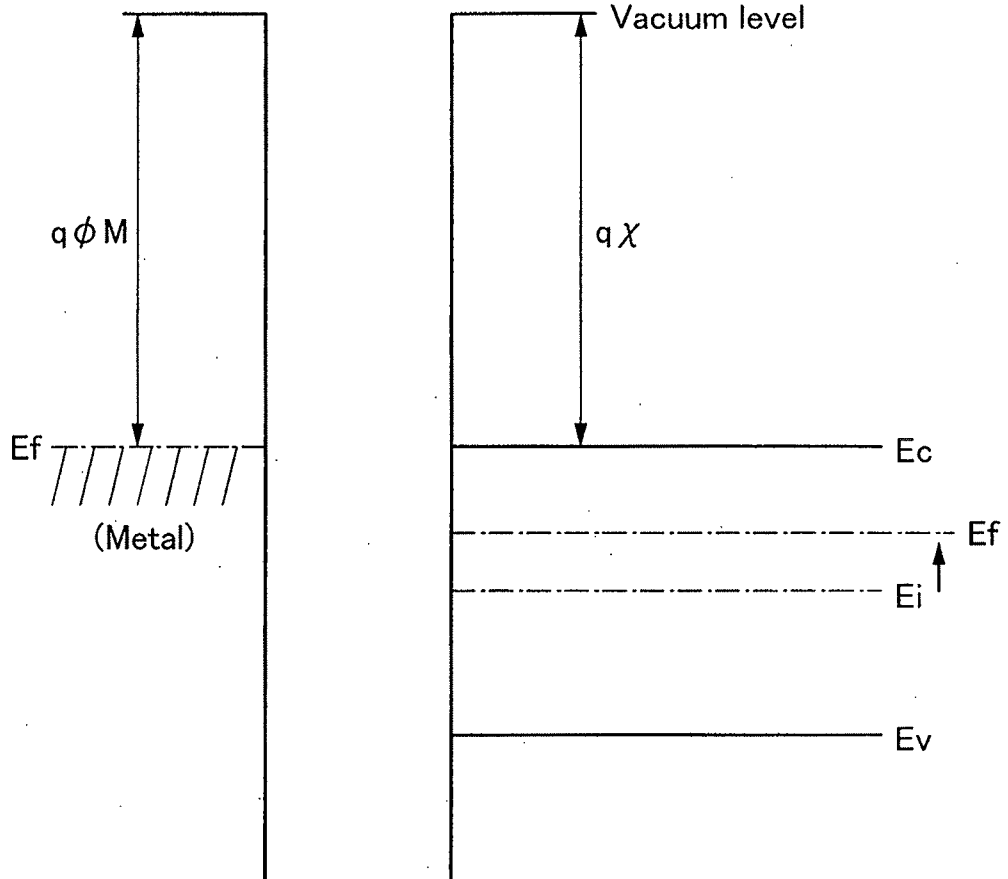


FIG. 17A

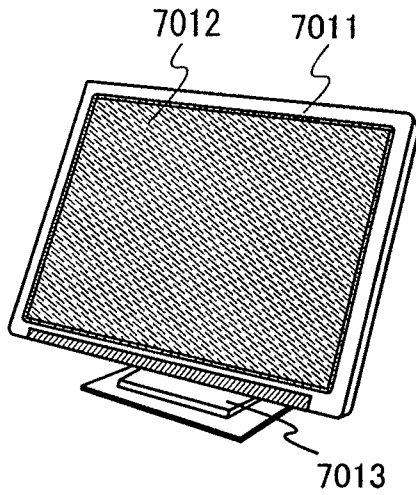


FIG. 17B

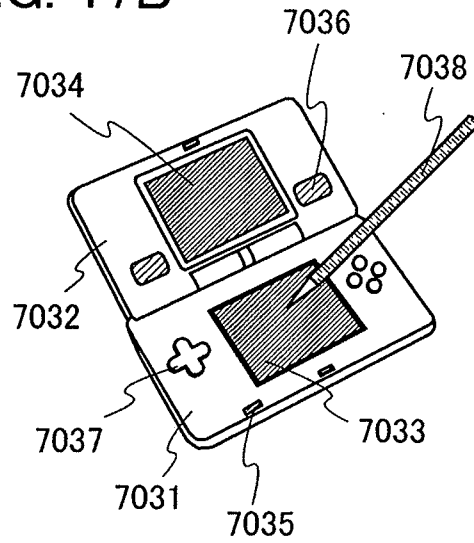


FIG. 17C

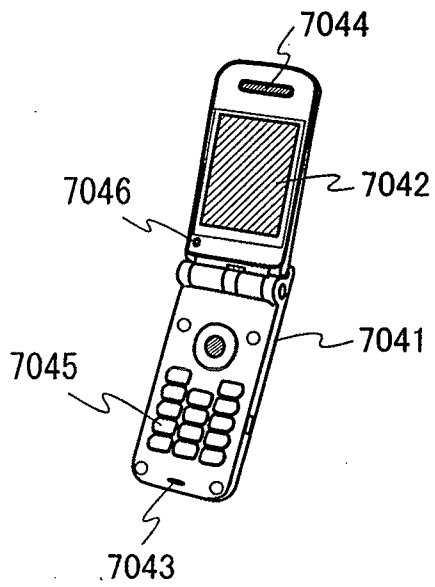
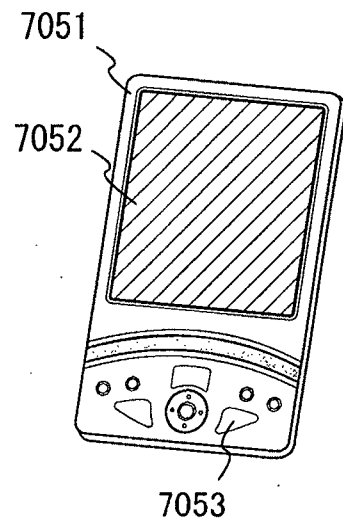


FIG. 17D



EXPLANATION OF REFERENCES

500: substrate, 501: first transistor, 502: third transistor, 503: single crystal silicon film, 504: single crystal silicon film, 505: insulating film, 506: insulating film, 507: insulating film, 510: gate electrode, 511: gate electrode, 601: gate electrode, 602: electrode, 603: gate insulating film, 605: oxide semiconductor film, 606: impurity region, 607: impurity region, 608: source electrode, 609: drain electrode, 610: wiring, 611: wiring, 612: wiring, 613: wiring, 614: insulating film, 620: second transistor, 623: capacitor, 630: second transistor, 631: gate electrode, 632: gate insulating film, 633: oxide semiconductor film, 634: channel protective film, 635: source electrode, 636: drain electrode, 637: insulating film, 640: second transistor, 641: gate electrode, 642: gate insulating film, 643: source electrode, 644: drain electrode, 645: oxide semiconductor film, 646: insulating film, 650: second transistor, 651: source electrode, 652: drain electrode, 653: oxide semiconductor film, 654: gate insulating film, 655: gate electrode, 656: insulating film, 801: first transistor, 7011: housing, 7012: display portion, 7013: supporting base, 7031: housing, 7032: housing, 7033: display portion, 7034: display portion, 7035: microphone, 7036: speaker, 7037: operation key, 7038: stylus, 7041: housing, 7042: display portion, 7043: audio-input portion, 7044: audio-output portion, 7045: operation key, 7046: light-receiving portion, 7051: housing, 7052: display portion, and 7053: operation key