

(19) **DANMARK**

(10) **DK/EP 3545512 T3**



(12) **Oversættelse af
europæisk patentskrift**

Patent- og
Varemærkestyrelsen

-
- (51) Int.Cl.: **G 09 F 7/08 (2006.01)** **G 09 F 7/20 (2006.01)** **G 09 F 23/06 (2006.01)**
- (45) Oversættelsen bekendtgjort den: **2025-02-03**
- (80) Dato for Den Europæiske Patentmyndigheds bekendtgørelse om meddelelse af patentet: **2024-11-06**
- (86) Europæisk ansøgning nr.: **17801048.4**
- (86) Europæisk indleveringsdag: **2017-11-21**
- (87) Den europæiske ansøgnings publiceringsdag: **2019-10-02**
- (86) International ansøgning nr.: **EP2017079965**
- (87) Internationalt publikationsnr.: **WO2018095927**
- (30) Prioritet: **2016-11-25 GB 201619963**
- (84) Designerede stater: **AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR**
- (73) Patenthaver: **Shaw-Smith, Mark, Glyme House , Cleveley, Chipping Norton OX7 4DY, Storbritannien**
- (72) Opfinder: **Shaw-Smith, Mark, Glyme House , Cleveley, Chipping Norton OX7 4DY, Storbritannien**
- (74) Fuldmægtig i Danmark: **Zacco Denmark A/S, Arne Jacobsens Allé 15, 2300 København S, Danmark**
- (54) Benævnelse: **DISPLAY-SKILT**
- (56) Fremdragne publikationer:
US-A- 5 657 566
US-B1- 8 733 000
US-B2- 8 808 006

DESCRIPTION

Description

[0001] The present invention relates to a display sign, such as for an office or built environment, and especially in identifying rooms within buildings.

[0002] US8733000 relates to an advertisement display and method of use. The document discloses a display having two side columns and at least one advertisement module provided therebetween. The module consists of a top unit and a pivoting lower unit. The top unit is slidable within the side columns. A longitudinal wall is spaced from a bottom wall of the top unit defining a utility space therebetween. The lower unit is locked and prevented from pivoting when the top unit with the longitudinal wall is slid into a downward position, and is allowed to pivot when the top unit with the longitudinal wall is slid upwardly unlocking the bottom unit.

[0003] US8808006 relates to a multiplanar display system. The document discloses a display system that combines a dry-erase surface with an interchangeable background made to specific individual requirements so that information and/ or fields over which dry-erase markings are made become integrated with the background. In addition, the document discloses a picture frame, referred to as a snap frame, having spring-loaded movable clamps hinged to fixed frame members, which are further attached to a rigid backer board to form a composite four sided rigid member. The document further illustrates a snap frame where movable members are rotated outwardly to facilitate removal of a transparent cover member, from the front, in order to access a background. A replacement background may be positioned within the fixed frame, interposed between the backer board, and the clear cover, which protects the background once it is secured in place by snapping movable members to a closed position.

[0004] US5657566 relates to rapid mount advertising panels. The document discloses advertising panels for motor vehicles, such as lorries, wherein a plurality of panels are removably attached in such a manner, that as a group they form a large bill board surface. The display panels are constructed and designed to resist sagging and distortion due to the effect of heat, wind, etc. when the truck is moving.

[0005] Various display signs for office use exist, and the present inventor has developed an improved sign which allows conveniently for removal and/or replacement of a display insert.

[0006] In one aspect the present invention provides a display sign according to claim 1, comprising: a main body; a display section; and a movable body, which is movable in relation to the main body and configured to provide for locking and release of the display section so as to allow for removal and/or replacement of at least part of the display section wherein the main

body includes a cavity and the movable body comprises a slider which is slideably disposed in the cavity of the main body characterised in that the slider includes at least one recess which is disposed adjacent at least one first engagement element of the slider, the recesses each having a width which is greater than the width of first engagement elements of the main body, such that, when the slider is moved in a first direction, the recesses in the slider can be aligned with the first engagement elements of the main body, which allows the movable body to be moved in a second direction, orthogonal to the first direction, with the first engagement elements of the main body being received in the recesses in the slider.

[0007] Preferred embodiments of the present invention will now be described hereinbelow by way of example only with reference to the accompanying drawings, in which:

Figure 1 illustrates a front perspective view of a display sign in accordance with one embodiment of the present invention;

Figure 2 illustrates a rear perspective view of the display sign of Figure 1;

Figure 3 illustrates a front view of the display sign of Figure 1;

Figure 4 illustrates a rear view of the display sign of Figure 1;

Figure 5 illustrates a side view of the display sign of Figure 1;

Figure 6 illustrates an exploded perspective view of the display sign of Figure 1;

Figures 7(a) and (b) illustrate front and rear perspective views of the display sign of Figure 1 in which the movable body is moved from a closed position to an intermediate position;

Figures 8(a) and (b) illustrate front and rear perspective views of the display sign of Figure 1 in which the movable body is in a latched, open position and the display section is in a closed position;

Figures 9(a) and (b) illustrate front and rear perspective views of the display sign of Figure 1 in which the movable body is in the latched, open position and the display section is opened to allow for removal and/or replacement of at least part thereof;

Figures 10(a) and (b) illustrate front and rear perspective views of the display sign of Figure 1 in which the movable body is in the latched, open position and the display section is returned to the closed position;

Figures 11(a) and (b) illustrate front and rear perspective views of the display sign of Figure 1 in which the movable body is returned to the intermediate position; and

Figures 12(a) and (b) illustrate front and rear perspective views of the display sign of Figure 1 in which the movable body is returned to the closed position.

[0008] The display sign comprises a main body 3, a display section 5 and a movable body 7, which is movable in relation to the main body 3 and configured to provide for locking and release of the display section 5 so as to allow for removal and/or replacement of at least part of the display section 5; wherein the main body 3 includes a cavity 17 and the movable body 7 comprises a slider 41 which is slideably disposed in the cavity 17 of the main body 3 characterised in that the slider 41 includes at least one recess 65 which is disposed adjacent at least one first engagement element 51 of the slider 41, the recesses 65 each having a width which is greater than the width of first engagement elements 20 of the main body 3, such that, when the slider 41 is moved in a first direction, the recesses 65 in the slider 41 can be aligned with the first engagement elements 20 of the main body 3, which allows the movable body 7 to be moved in a second direction, orthogonal to the first direction, with the first engagement elements 20 of the main body 3 being received in the recesses 65 in the slider 4.

[0009] In this embodiment the main body 3 is formed of sheets or panels, here of plastics material, which are bonded, such as by adhesive.

[0010] In this embodiment the main body 3 comprises a rear section 8, which is mounted to a wall or other building structure, a spacer 9 which is disposed to one, front face of the rear section 8 and spaces a face panel 43 of the movable body 7 from the rear section 8, and an engagement section 10 to which the display section 5 is engaged.

[0011] In this embodiment the spacer 9 and the engagement section 10 define a recess 11 therebetween, in which the display section 5 is disposed.

[0012] In this embodiment the spacer 9, as particularly illustrated in Figure 6, includes an aperture 12 which is shaped captively to retain a slider 41 of the movable body 7, but allow movement of the movable body 7 in first and second orthogonal directions X, Y.

[0013] In this embodiment the engagement section 10 comprises an engagement element 14, which is attached to the front face of the rear section 8 and includes at least one recess, here a plurality of recesses 15, for receiving the display section 5, and a face panel 16, which is attached to the engagement element 14.

[0014] In this embodiment the engagement section 10 provides a lower, footer to the display sign.

[0015] In this embodiment the main body 3 includes a cavity 17, in which the slider 41 of the movable body 7 is slideable.

[0016] In this embodiment the cavity 17 is substantially rectangular in profile and has opposed longitudinal sides 18 and opposed ends 19.

[0017] In this embodiment the main body 3 includes at least one, here a plurality of first engagement elements 20, which are arranged in spaced relation.

[0018] In this embodiment the first engagement elements 20 are disposed to one, here the upper, of the longitudinal sides 18 of the cavity 17 and the other, here the lower, of the longitudinal sides 18 of the cavity 17 defines a sliding surface on which the slider 41 of the movable body 7 is slideable in the first direction X.

[0019] In this embodiment the first engagement elements 20 each include a detent 21, here at the distal end thereof.

[0020] In this embodiment the first engagement elements 20 comprise projections which have a width d_1 and extend in the second direction Y.

[0021] In this embodiment the main body 3 includes at least one, here a plurality of second engagement elements 22, which act to hold the slider 41 of the movable body 7 in a latched, open position, as will be described in more detail hereinbelow.

[0022] In this embodiment the second engagement elements 22 are disposed to respective ends 19 of the cavity 17.

[0023] In this embodiment the second engagement elements 22 are resilient elements, which engage corresponding engagement elements 52 on the slider 41 of the movable body 7.

[0024] In this embodiment the second engagement elements 22 each include a detent 23, here in the form of a recess.

[0025] In this embodiment the main body 3 includes at least one, here a plurality of openings 25, which receive hinge elements 35, 37 of the display section 5, as will be described in more detail hereinbelow.

[0026] In this embodiment the display section 5 comprises a display insert 31 which bears information, and a display panel 33 which covers the display insert 31 to enclose the same.

[0027] In this embodiment the display insert 31 includes at least one, here a plurality of tab elements 35, here at a lower edge thereof, which locate in the recesses 15 in the engagement section 10, and, with the movable body 7 in the unlocked position, the display section 5 allows for hinging of the display panel 33 and removal and/or replacement of the display insert 31.

[0028] In this embodiment the display insert 31 is formed of paper, but could be formed of other materials, such as card or plastics sheet.

[0029] In this embodiment the display panel 33 is at least partially transparent so as to allow information on the display insert 31 to be viewed.

[0030] In this embodiment the display panel 33 includes at least one, here a plurality of tab

elements 37, here at a lower edge thereof, which locate in the recesses 15 in the engagement section 10.

[0031] In an alternative embodiment the display section 5 could comprise only the display panel 33 which bears information.

[0032] In this embodiment the movable body 7 comprises a slider 41 which is captively disposed within the cavity 17 in the main body 3 and a face panel 43 which is attached to slider 41, such that the slider 41 is moved by movement of the face panel 43.

[0033] In this embodiment the slider 41 is substantially rectangular in profile and has longitudinal sides 45 and ends 47.

[0034] In this embodiment the slider 41 includes at least one, here a plurality of first engagement elements 51, which are arranged in spaced and counterpart relation to the first engagement elements 20 of the main body 3, and at least one, here a plurality of second engagement elements 52, which are arranged in spaced and counterpart relation to the second engagement elements 22 of the main body 3.

[0035] In this embodiment the first engagement elements 51 of the slider 41 are disposed to one of the longitudinal sides 45 of the slider 41 and the other of the longitudinal sides 47 of the slider 41 defines a sliding surface which engages the sliding surface of the other, lower longitudinal side 18 of the cavity 17 in the main body 3.

[0036] In this embodiment the first engagement elements 51 of the slider 41 each include a detent 61, here in the form of a recess, which engages the respective detent 21 on the counterpart first engagement element 20 of the main body 3.

[0037] In this embodiment the first engagement elements 51 of the slider 41 are resilient elements, which allow the detents 21, 61 to be engaged and disengaged with movement of the movable body 7 in the first direction X.

[0038] In this embodiment the second engagement elements 52 of the slider 41 each include a detent 62.

[0039] In this embodiment the slider 41 includes at least one, here a plurality of recesses 65, which are disposed adjacent the at least one, here plurality of first engagement elements 51 of the slider 41.

[0040] In this embodiment the recesses 65 each have a width d_2 which is greater than the width d_1 of the first engagement elements 20 of the main body 3, such that, when the slider 41 is moved in the first direction X, the recesses 65 in the slider 41 can be aligned with the first engagement elements 20 of the main body 3, which allows the movable body 7 to be moved in a second direction Y, orthogonal to the first direction X, with the first engagement elements 20

of the main body 3 being received in the recesses 65 in the slider 41, as will be described in more detail hereinbelow.

[0041] In this embodiment the face panel 43 of the movable body 7 provides an upper, header of the display sign.

[0042] Operation of the display sign will now be described with reference to Figures 7 to 12 of the accompanying drawings.

[0043] In a first step, as illustrated in Figures 7(a) and (b), the face panel 43 of the movable body 7 is slid in the first direction X, here laterally to the right, which causes the slider 41 to be moved in the first direction X from a locked position, releasing the detents 61 of the first engagement elements 51 of the slider 41 from the detents 21 of the first engagement elements 20 of the main body 3, to an intermediate position, in which the first engagement elements 20 of the main body 3 are aligned with the recesses 65 in the slider 41. In this intermediate position, the display section 5 remains locked in a locked position by engagement of the display panel 33 of the display section 5 behind the face panel 43 of the movable body 7.

[0044] Subsequently, as illustrated in Figures 8(a) and (b), the face panel 43 of the movable body 7 is slid in the second direction Y, here upwardly, which causes the slider 41 to be moved in the second direction Y from the intermediate position to an open position, in which the movable body 7 is latched open and the display panel 33 of the display section 5 is disengaged from the face panel 43 of the movable body 7, allowing the display section 5 to be opened for removal and replacement.

[0045] In moving the face panel 43 of the movable body 7 in the second direction Y, the first engagement elements 20 of the main body 3 are received in the recesses 65 in the slider 41 of the movable body 7, and the detents 62 of the second engagement elements 52 of the slider 41 engage the detents 23 of the second engagement elements 22 of the main body 3 and latch the slider 41, and hence the movable body 7, in the open position.

[0046] With the movable body 7 in the open position, the display section 5 can be opened to allow for removal and/or replacement of at least part thereof, as illustrated in Figures 9(a) and (b). In this embodiment the display sheet 31, which bears information, is removed and/or replaced.

[0047] Following removal and/or replacement of the display section 5, the display section 5 is closed, as illustrated in Figures 10(a) and (b)

[0048] Then, as illustrated in Figures 11(a) and (b), the face panel 43 of the movable body 7 is slid in the second direction Y, here downwardly, which causes the slider 41 to be moved in the second direction Y from the open position to the intermediate position, in which the detents 62 of the second engagement elements 52 of the slider 41 are disengaged from the detents 23 of the second engagement elements 22 of the main body 3 and the first engagement elements

20 of the main body 3 are withdrawn from the recesses 65 in the slider 41 of the movable body 7.

[0049] Finally, as illustrated in Figures 12(a) and (b), the face panel 43 of the movable body 7 is slid in the first direction X, here laterally to the left, which causes the slider 41 to be moved in the first direction X from the intermediate position to the locked position, in which the detents 61 of the first engagement elements 51 of the slider 41 are engaged with the detents 21 of the first engagement elements 20 of the main body 3.

REFERENCES CITED IN THE DESCRIPTION

Cited references

This list of references cited by the applicant is for the reader's convenience only. It does not form part of the European patent document. Even though great care has been taken in compiling the references, errors or omissions cannot be excluded and the EPO disclaims all liability in this regard.

Patent documents cited in the description

- [US8733000B](#) **[0002]**
- [US8808006B](#) **[0003]**
- [US5657566A](#) **[0004]**

Patentkrav

1. Udstillingskilt, der omfatter:

et hovedlegeme (3);

5 en udstillingssektion (5); og

et bevægeligt legeme (7), som er bevægeligt i forhold til hovedlegemet (3) og konfigureret til at sørge for låsning og frigivelse af udstillingssektionen (5) for at gøre det muligt at fjerne og/eller udskifte i det mindste en del af udstillingssektionen (5);

10 hvor hovedlegemet (3) omfatter et hulrum (17), og det bevægelige legeme (7) omfatter en skyder (41), som er forskydeligt anbragt i hulrummet (17) af hovedlegemet (3),

kendetegnet ved, at

hovedlegemet omfatter mindst ét første indgrebselement (20),

15 skyderen (41) omfatter mindst en fordybning (65), hvor den mindst ene fordybning (65) har en bredde, der er større end bredden af det mindst ene første indgrebselement (20) af hovedlegemet (3), således at når skyderen (41) bevæges i en første retning, kan den mindst ene udsparring (65) i skyderen (41) komme på linje med det mindst ene første indgrebselement (20) af hovedlegemet (3), hvilket gør det muligt at bevæge det bevægelige legeme (7) i en
20 anden retning, vinkelret på den første retning, hvor det mindst ene første indgrebselement (20) af hovedlegemet (3) modtages i mindst én udsparring (65) i skyderen (4).

25 **2.** Skilt ifølge krav 1, hvor hovedlegemet (3) er dannet af plader eller paneler.

3. Skilt ifølge krav 1 eller 2, hvor hovedlegemet (3) omfatter en bageste sektion (8), som kan monteres på en væg eller anden bygningskonstruktion, og en indgrebssektion (10), hvormed udstillingssektionen (5) er i indgreb, hvor indgrebssektionen (10) omfatter et indgrebselement (14), som omfatter mindst en
30 fordybning til modtagelse af mindst en funktion af udstillingssektionen (5), og

et frontpanel (16).

5 **4.** Skilt ifølge krav 3, hvor indgrebselementet (14) er fastgjort til en forside af den bageste sektion (8), og frontpanelet (16) er fastgjort til indgrebselementet (14).

5. Skilt ifølge et hvilket som helst af de foregående krav, hvor hulrummet (17) er aflangt i profil.

10 **6.** Skilt ifølge et hvilket som helst af de foregående krav, hvor hovedlegemet (3) og skyderen (41) af det bevægelige legeme (7) hver især omfatter mindst ét første indgrebselement (20), og de første indgrebselementer (20) er i indgreb, når det bevægelige legeme (7) er i den lukkede position for at låse det bevægelige legeme (7) på plads.

15

7. Skilt ifølge krav 6, hvor de første indgrebselementer (20) hver især omfatter en pal (21), og palerne (21) er i indgreb, når det bevægelige legeme (7) er i den lukkede position.

20

8. Skilt ifølge krav 6, hvor det mindst ene første indgrebselement (20) af hovedlegemet (3) er anbragt på en langsgående side (18) af hulrummet (17), og den anden langsgående side (18) af hulrummet (17) definerer en glideflade, på hvilken skyderen (41) af det bevægelige legeme (7) kan glide.

25

9. Skilt ifølge et hvilket som helst af kravene 6, 7 eller 8, hvor det mindst ene første indgrebselement (20) af mindst en af hovedlegemet (3) og skyderen (41) af det bevægelige legeme (7) er et elastisk forspændt element.

30

10. Skilt ifølge et hvilket som helst af kravene 6 til 9, hvor hovedlegemet (3) og skyderen (41) af det bevægelige legeme (7) hver især omfatter en flerhed af

første indgrebselementer (20), som er anbragt i indbyrdes afstand.

5 **11.** Skilt ifølge et hvilket som helst af kravene 6 til 10, hvor hovedlegemet (3) og skyderen (41) af det bevægelige legeme (7) hver især omfatter mindst ét
10 andet indgrebselement (22), og de andre indgrebselementer (22) er i indgreb, når det bevægelige legeme (7) er i åben stilling for at låse det bevægelige legeme (7) i den åbne stilling, eventuelt omfatter de andre indgrebselementer (22) hver en pal (23), og palerne (23) er i fast indgreb, når det bevægelige legeme (7) er i den åbne position, eventuelt er de andre indgrebselementer (22) anbragt til tilstødende ender af hulrummet (17) af hovedlegemet (3) og skyderen (41) af den bevægelige krop (7).

15 **12.** Skilt ifølge krav 11, hvor det mindst ene andet indgrebselement (22) af mindst en af hovedlegemet (3) og skyderen (41) af det bevægelige legeme (7) er et elastisk forspændt element.

20 **13.** Skilt ifølge krav 11 eller 12, hvor hovedlegemet (3) og skyderen (4) af det bevægelige legeme (7) hver især omfatter en flerhed af andre indgrebselementer (22).

25 **14.** Skilt ifølge et hvilket som helst af de foregående krav, hvor det mindst ene indgrebselement af en af hovedlegemet (3) og skyderen (41) af det bevægelige legeme (7) omfatter et fremspring, der strækker sig i den anden retning, og det andet af hovedlegemet (7) og skyderen (41) af det bevægelige legeme (7) omfatter mindst en fordybning, som kun modtager fremspringet af den ene af hovedlegemet (3) og skyderen (41) af det bevægelige legeme (7), når skyderen (41) af det bevægelige legeme (7) bevæges i den anden retning fra den mellemliggende position, hvorved bevægelse af skyderen (41) af det bevægelige legeme (7) forhindres i anden retning, når skyderen (41) af det bevægelige legeme (7) er i en anden position end den mellemliggende position, eventuelt
30 er den mindst ene fordybning i den anden af hovedlegemet (3) og skyderen

(41) af det bevægelige legeme (7) anbragt ved siden af det mindst ene første indgrebselement i den ene af hovedlegemet (3) og skyderen (4) af det bevægelige legeme (7), eventuelt omfatter den anden af hovedlegemet (3) og skyderen (41) af det bevægelige legeme (7) en flerhed af fordybninger, som er anbragt i indbyrdes adskilte forhold til de første indgrebselementer på den ene af hovedlegemet (3) og skyderen (41) af det bevægelige legeme (7).

15. Skilt ifølge et hvilket som helst af de foregående krav, hvor det bevægelige legeme (7) yderligere omfatter et frontpanel (43), som er fastgjort til skyderen (41) deraf, således at skyderen (41) bevæges ved bevægelse af frontpanelet (43), eventuelt er frontpanelet (43) af det bevægelige legeme (7) et øvre hoved, eventuelt omfatter hoveddelen (3) en bageste sektion og en afstandsholder, som er anbragt på den ene forside af den bageste sektion og adskiller frontpanelet (43) af den bevægelige krop (7) fra den bageste sektion, eventuelt definerer afstandsholderen og indgrebssektionen en fordybning derimellem, hvori udstillingssektionen (5) er anbragt, eventuelt omfatter afstandsholderen en åbning, som er formet således, at skyderen (41) af det bevægelige legeme (7) fastholdes i hulrummet i hovedlegemet (3), men tillader bevægelse af det bevægelige legeme (7) i første og anden retning.

16. Skilt ifølge et hvilket som helst af de foregående krav, hvor udstillingssektionen (5) omfatter en udstillingsindsats, som bærer information, og et udstillingspanel (33), som er i det mindste delvist gennemsigtig og dækker udstillingsindsatsen (31) for at omslutte denne, hvor dækpanelet kan bevæges til en åben position, når det bevægelige legeme (7) er i åben position for at tillade fjernelse og/eller udskiftning af udstillingsindsatsen (31), valgfrit kan udstillingspanelet (33) hængsles til hoveddelen (3).

17. Skilt ifølge et hvilket som helst af de foregående krav, hvor udstillingssektionen (5) omfatter et udstillingspanel (33), som bærer information og kan bevæges til en åben position, når det bevægelige legeme (7) er i åben position

for at tillade til fjernelse og/eller udskiftning af udstillingspanelet (33).

DRAWINGS

Drawing

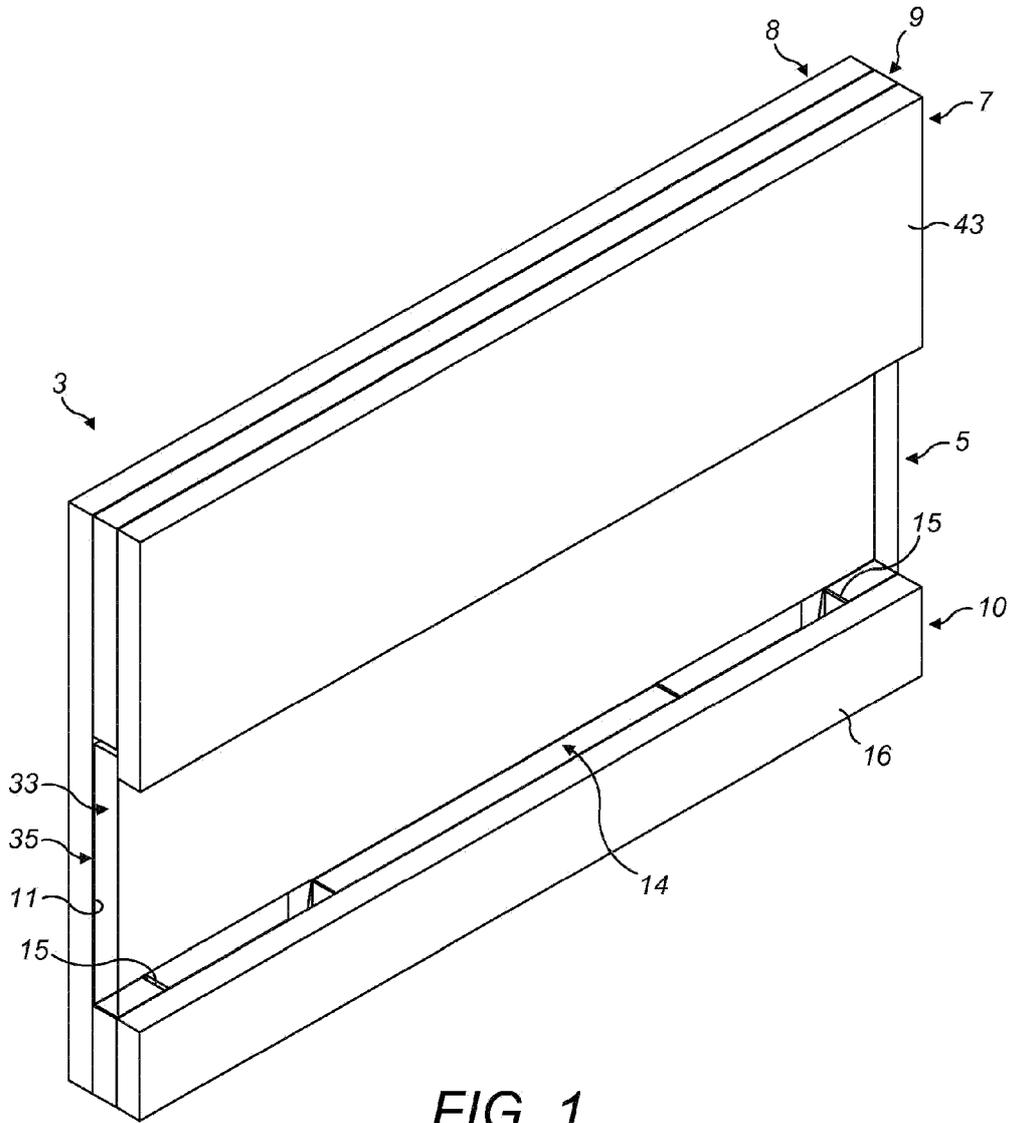


FIG. 1

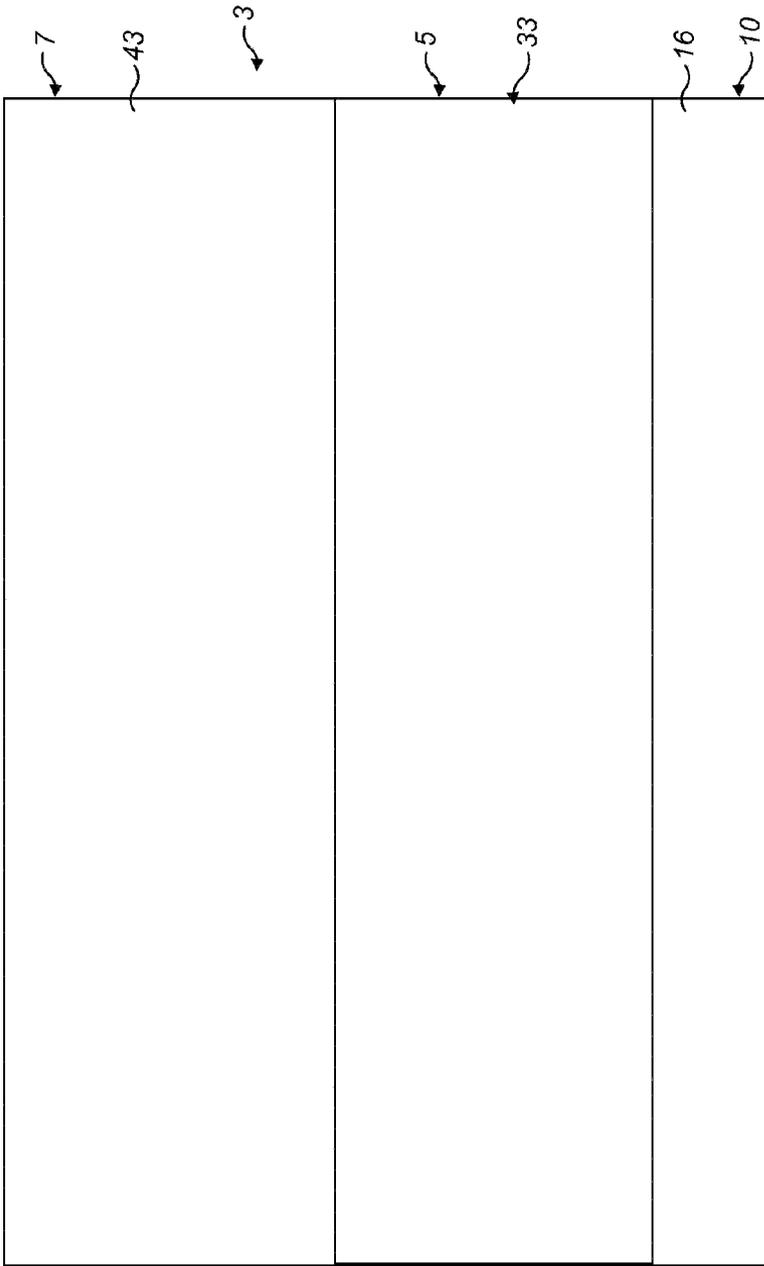
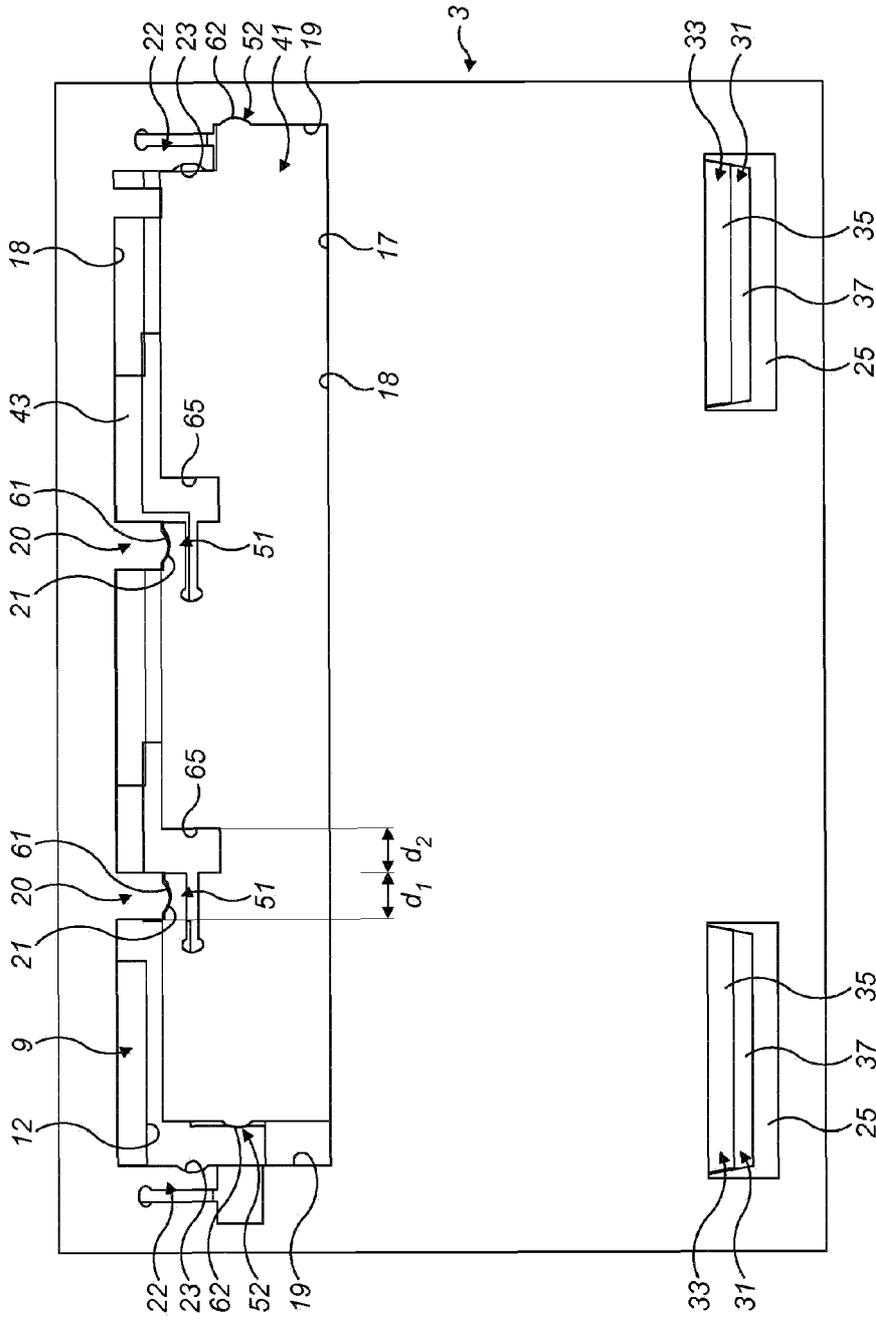


FIG. 3



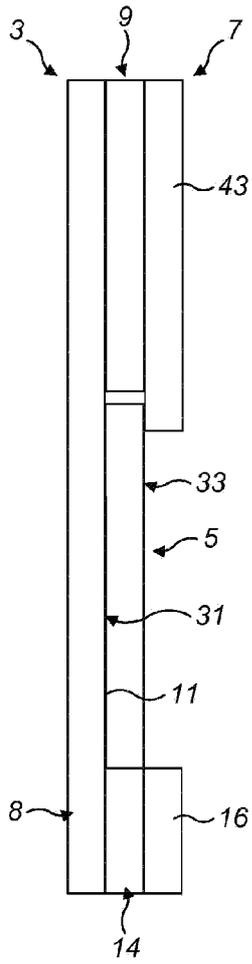


FIG. 5

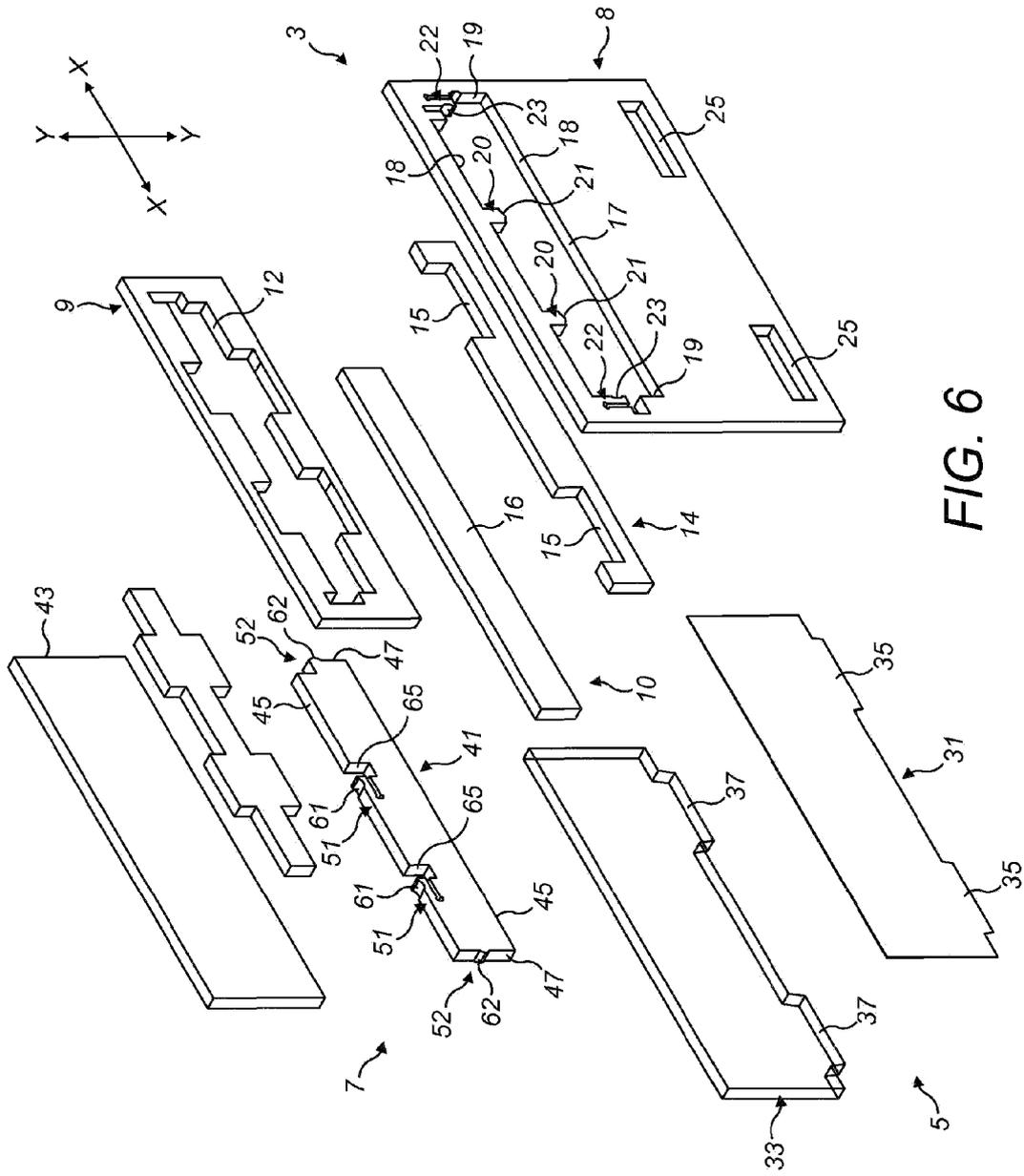


FIG. 6

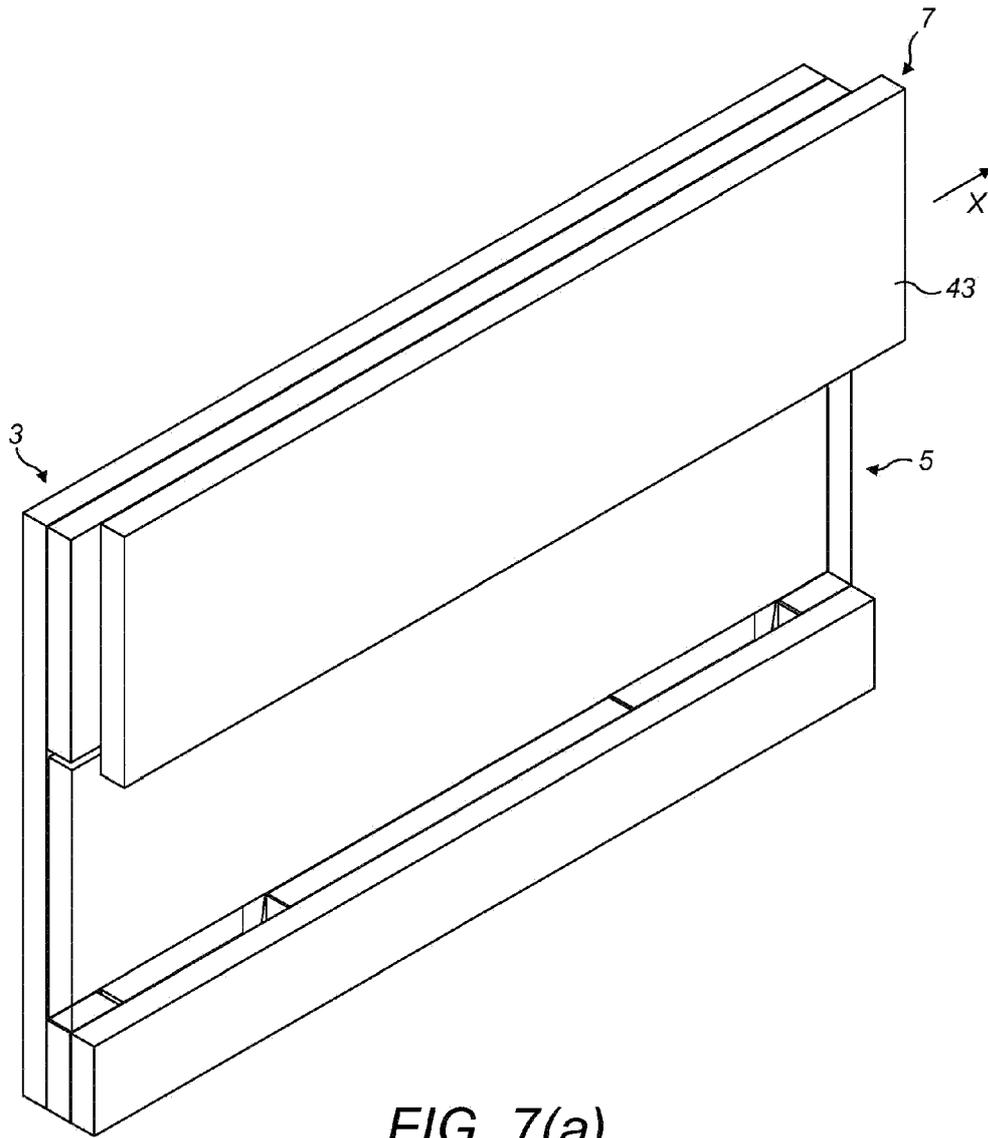


FIG. 7(a)

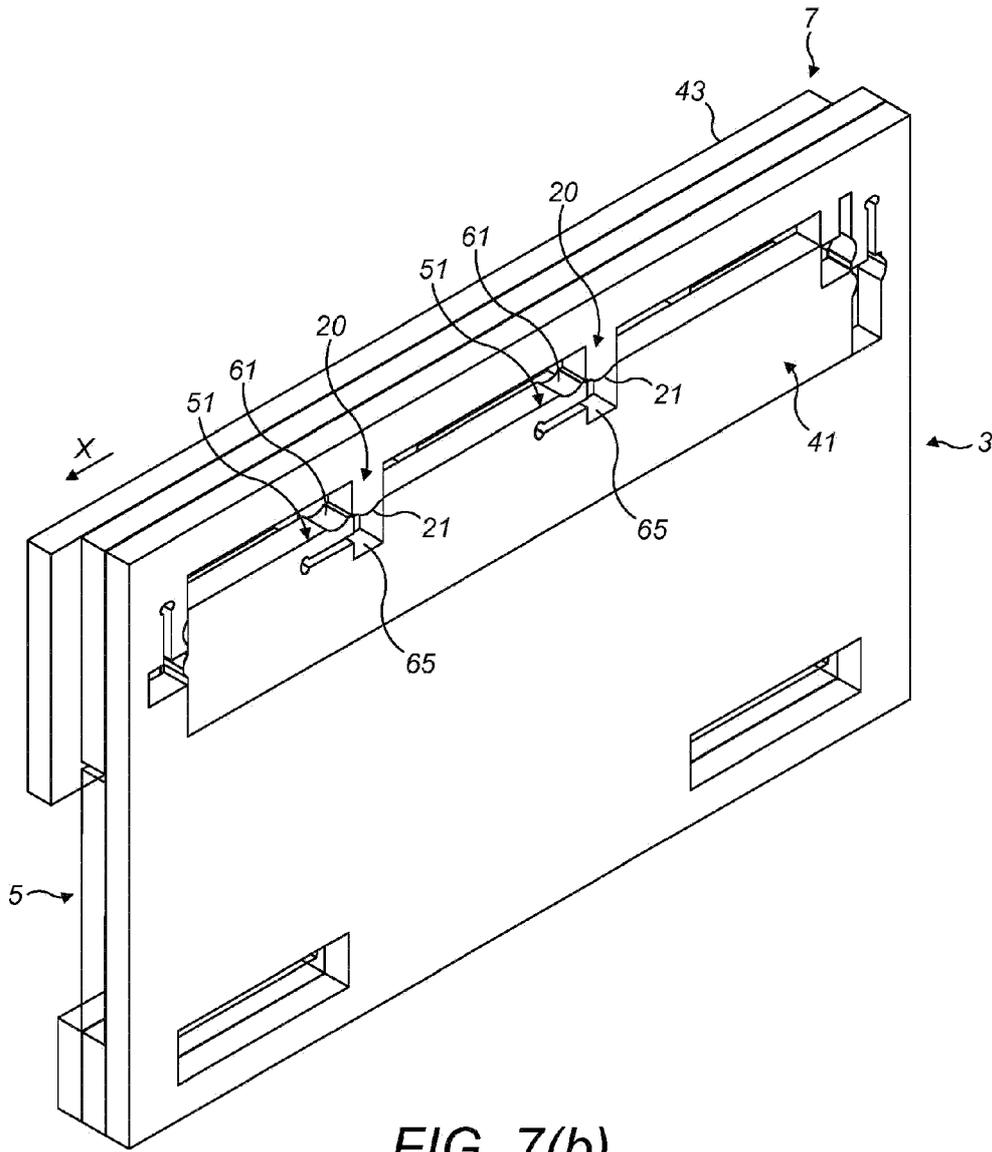


FIG. 7(b)

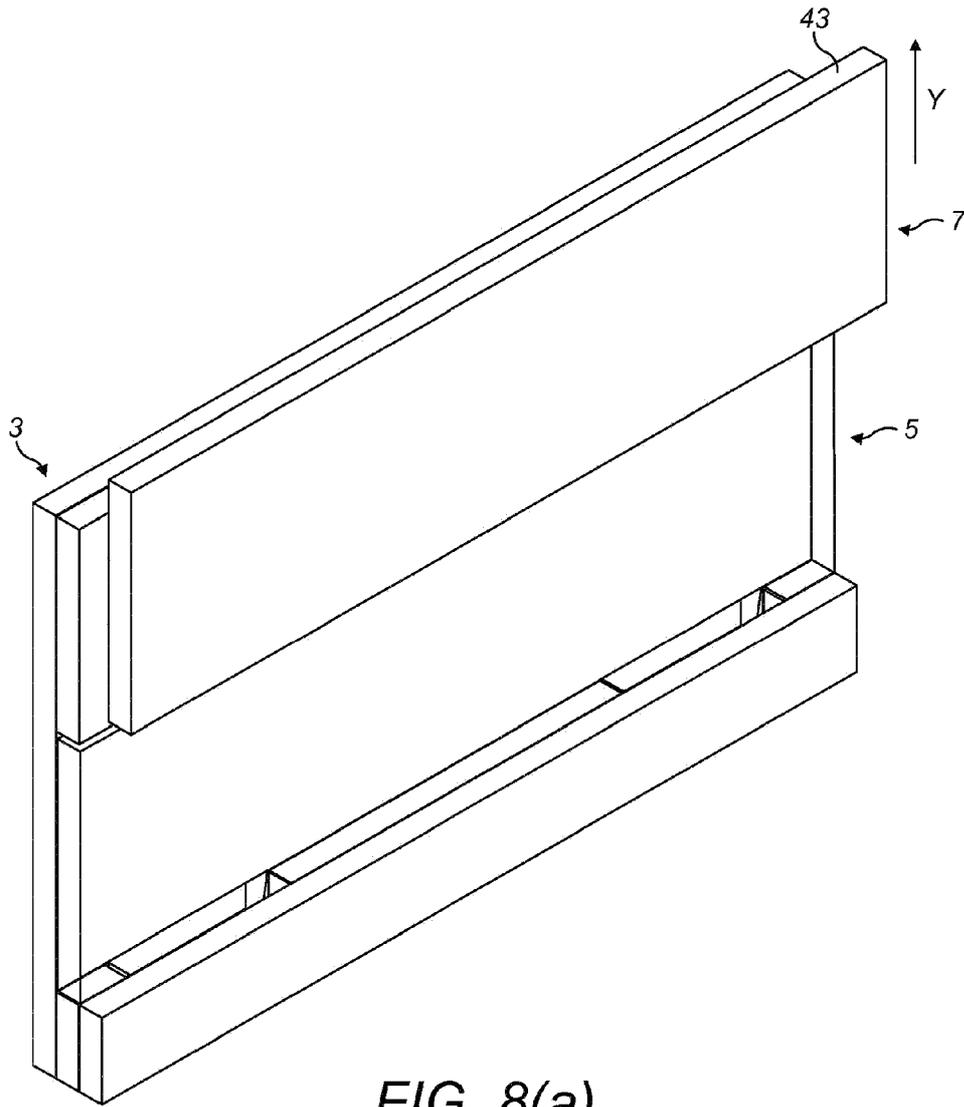


FIG. 8(a)

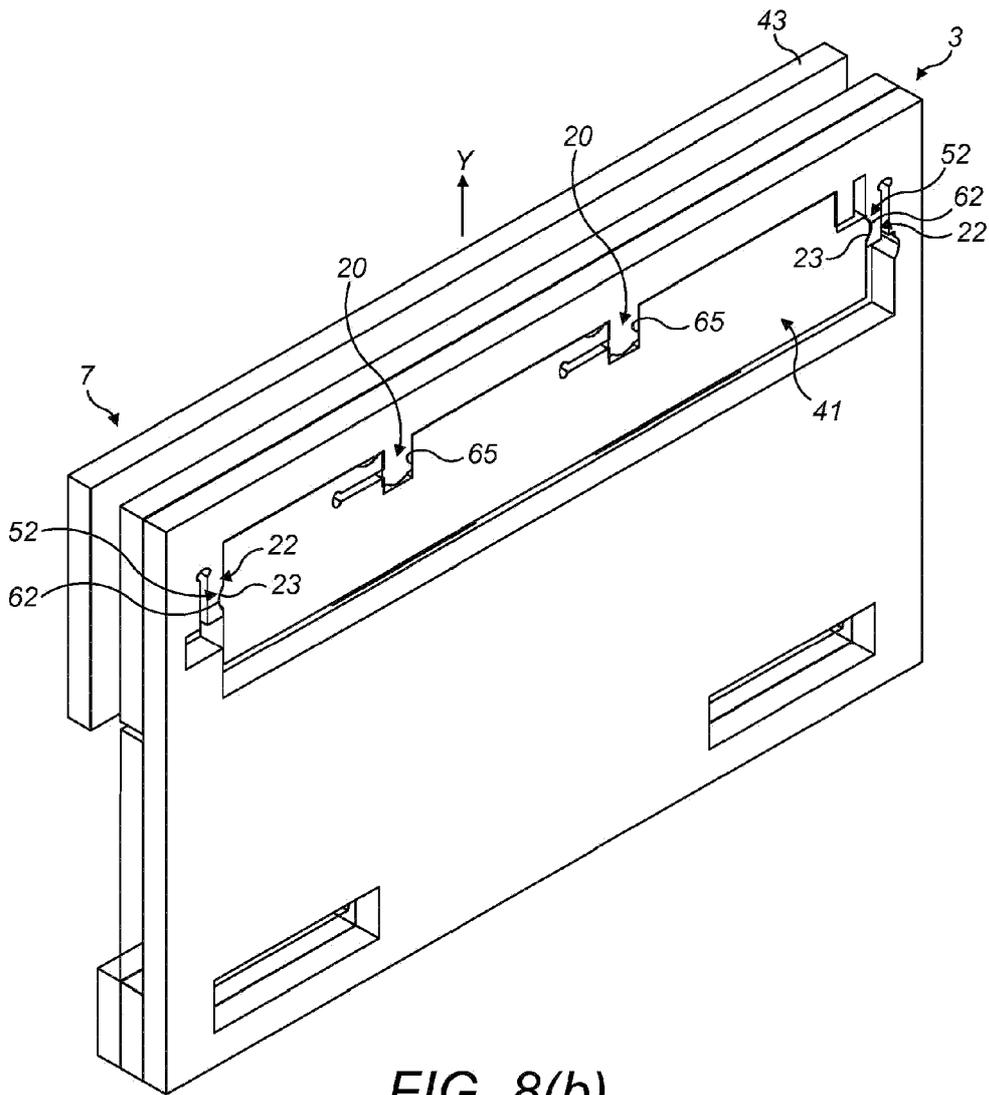


FIG. 8(b)

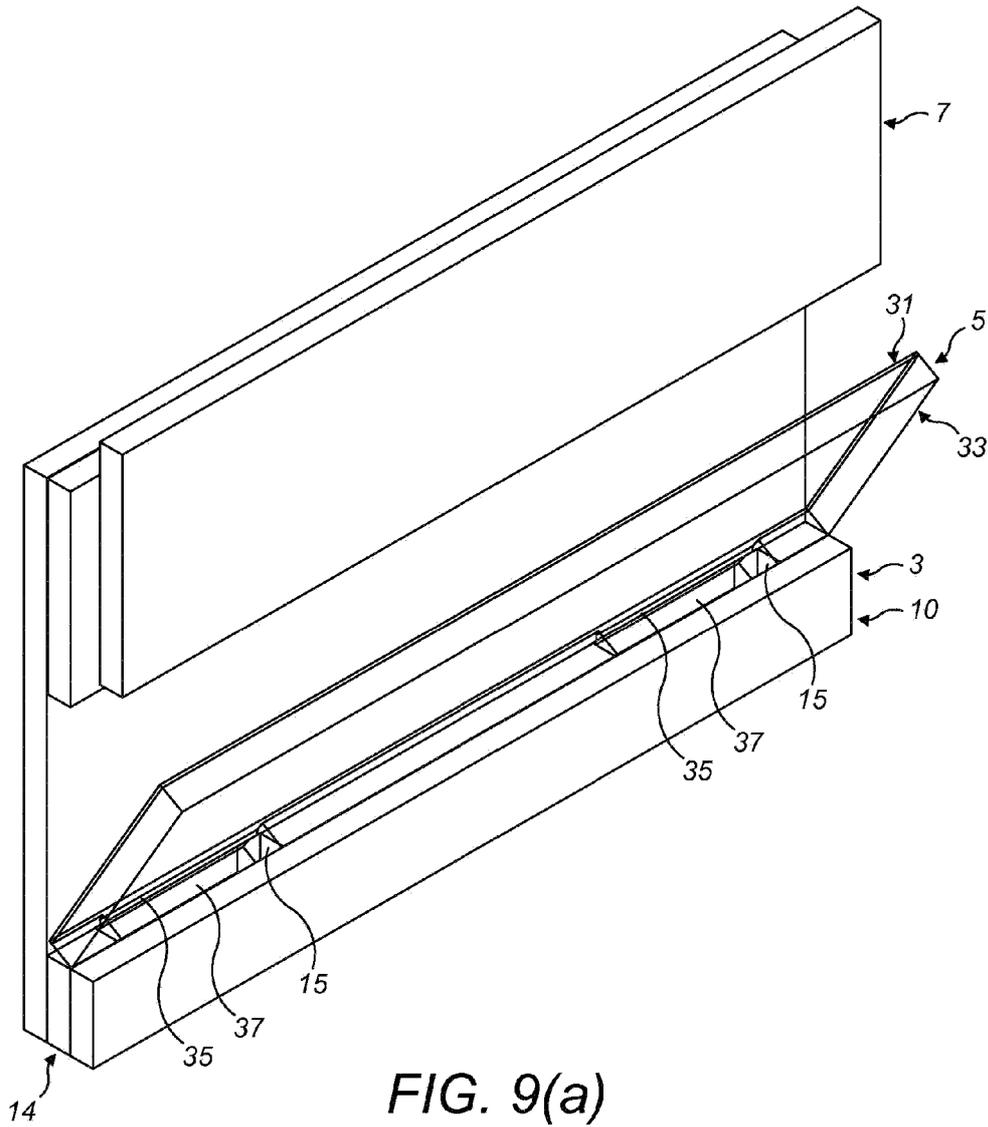


FIG. 9(a)

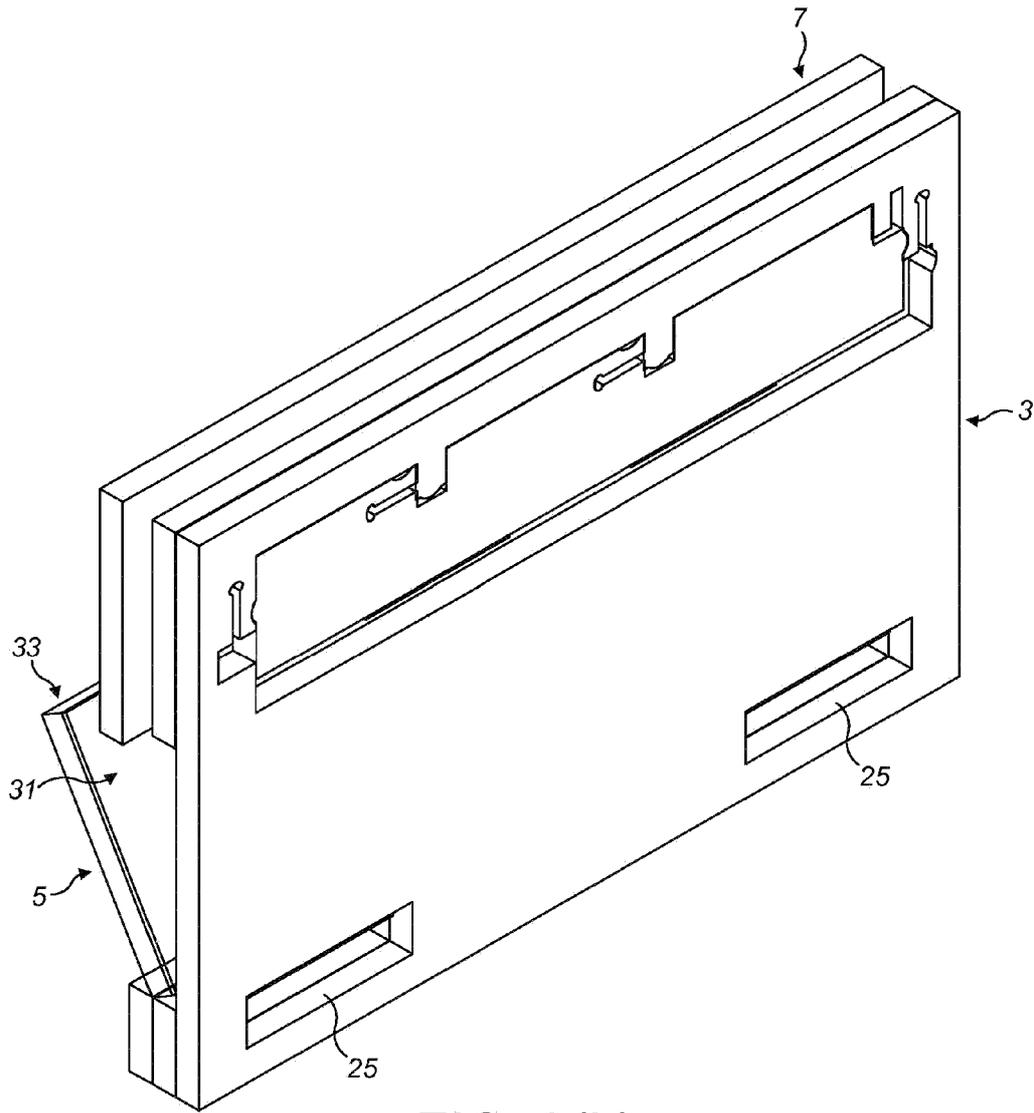


FIG. 9(b)

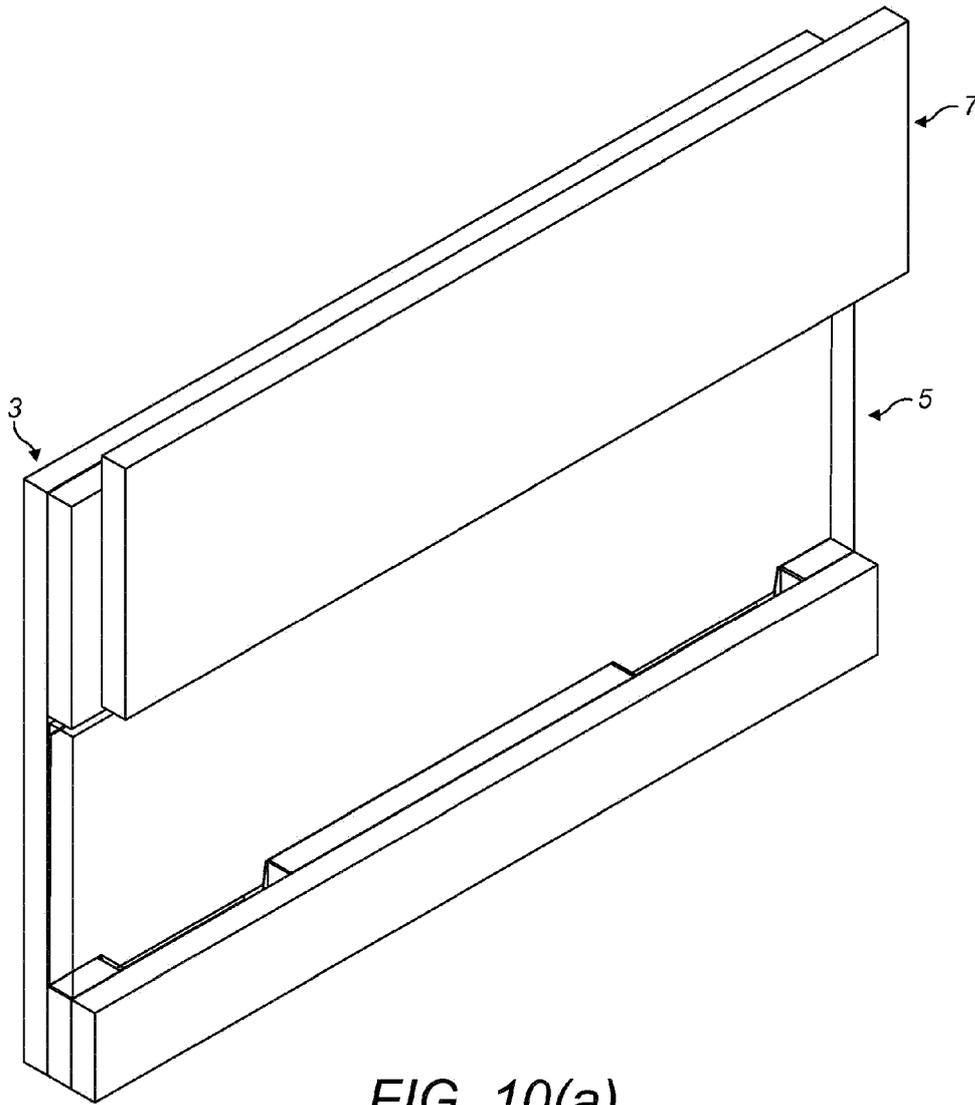


FIG. 10(a)

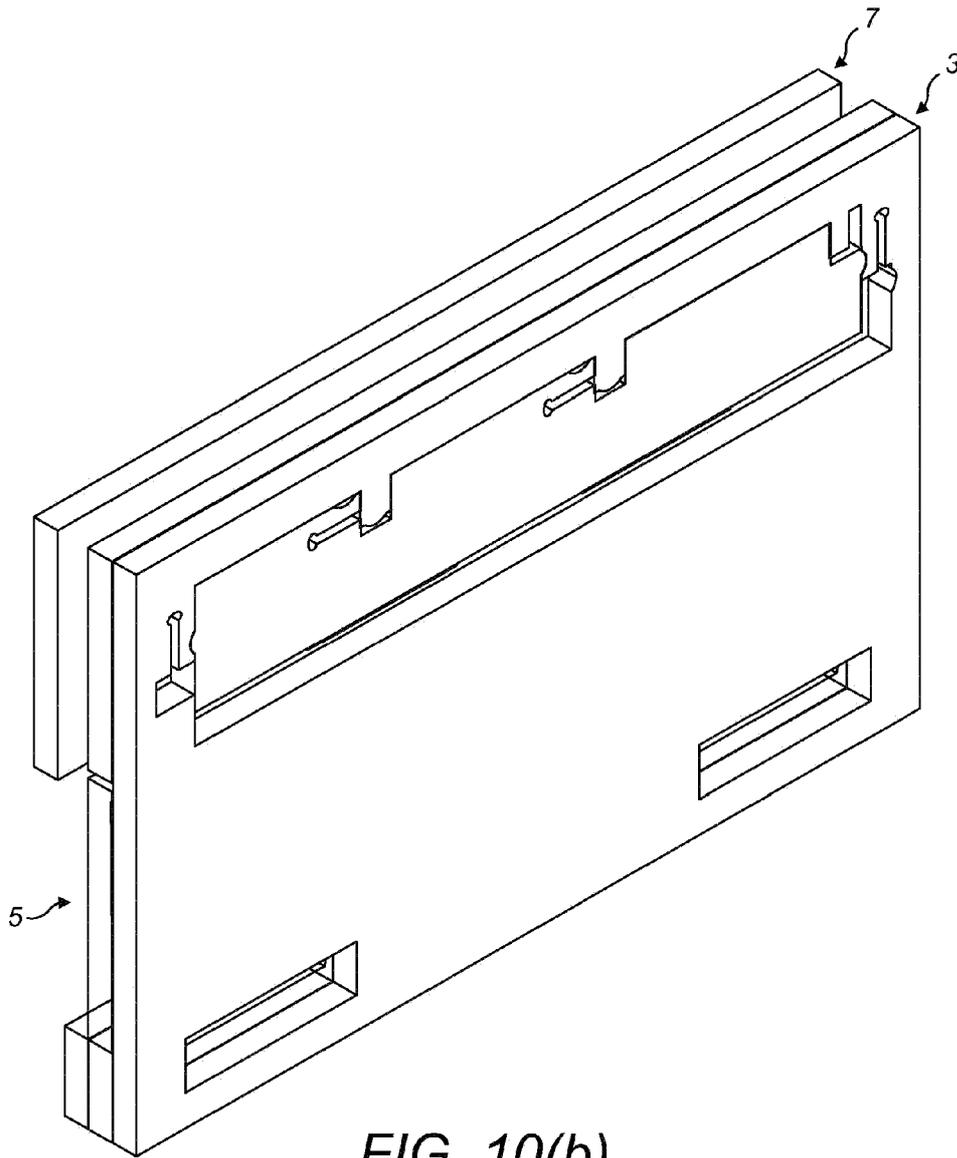


FIG. 10(b)

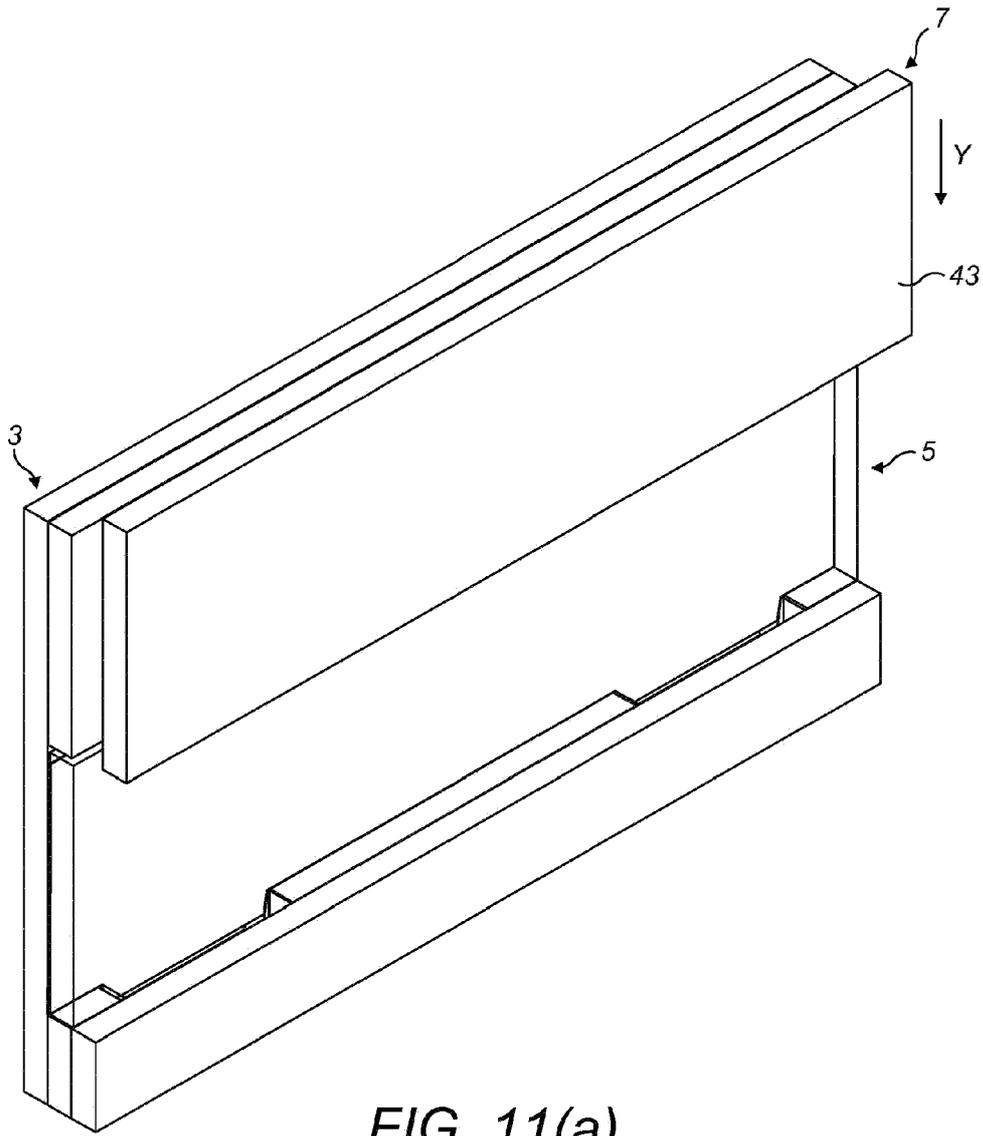


FIG. 11(a)

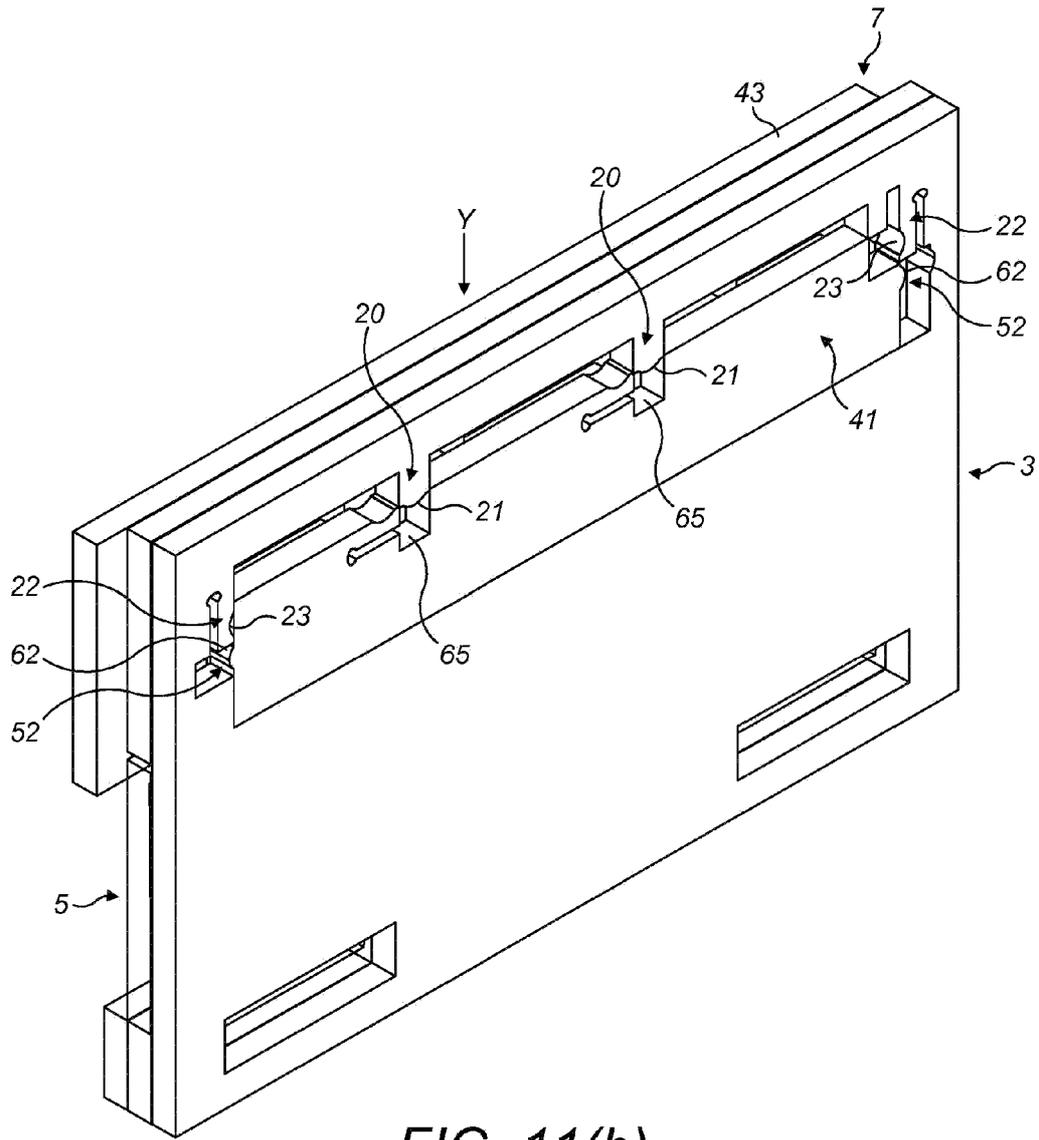


FIG. 11(b)

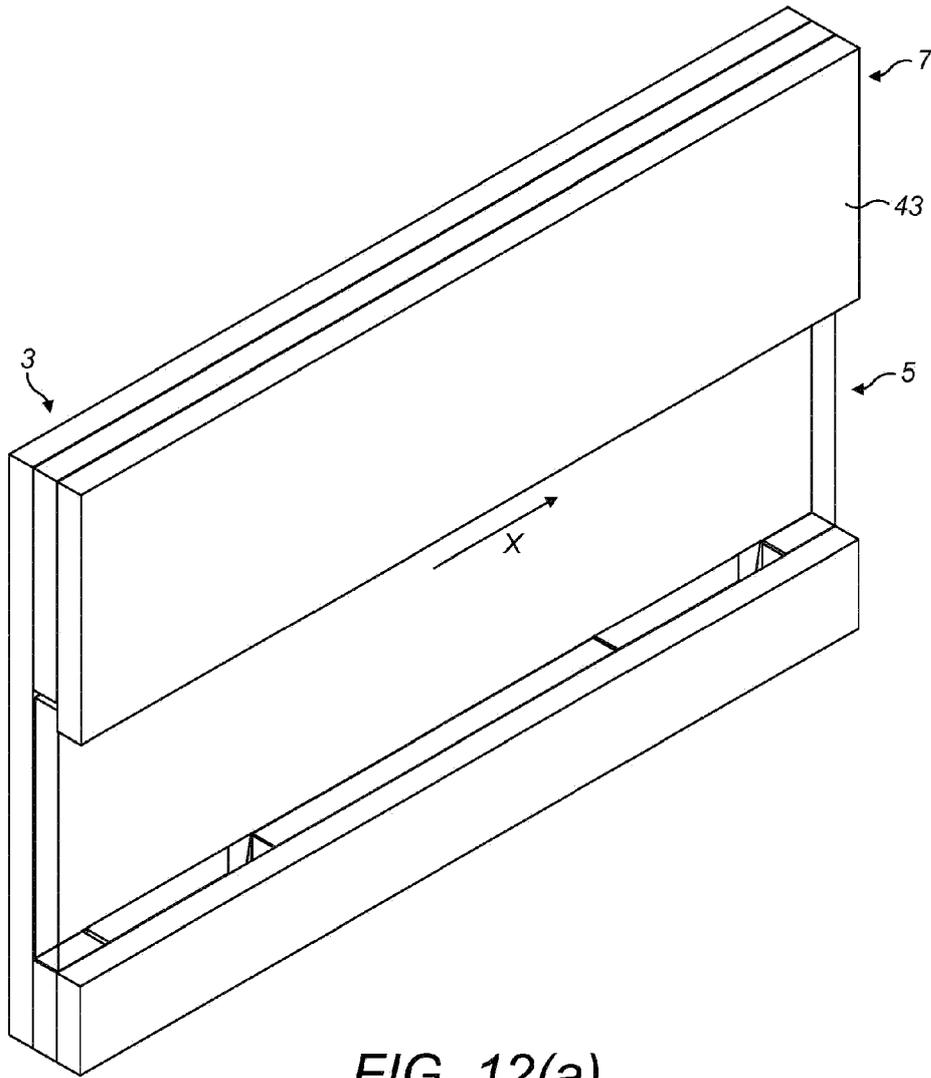


FIG. 12(a)

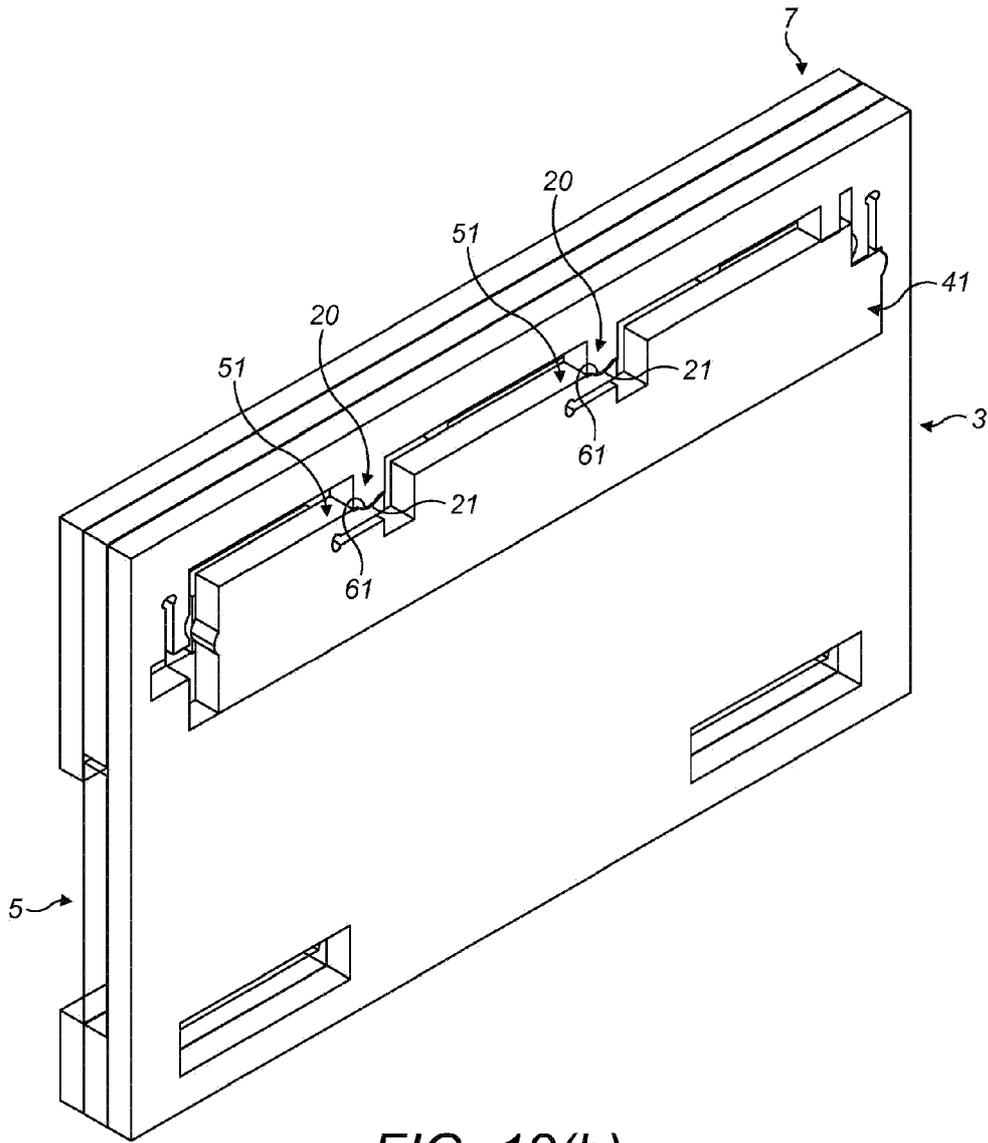


FIG. 12(b)