



(12) **EUROPEAN PATENT APPLICATION**

(43) Date of publication:
17.04.2013 Bulletin 2013/16

(21) Application number: **11186862.6**

(22) Date of filing: **27.10.2011**

(51) Int Cl.:
F24C 15/08 ^(2006.01) **F24C 15/18** ^(2006.01)
A47B 88/08 ^(2006.01) **A47B 88/14** ^(2006.01)
A47B 91/00 ^(2006.01) **F24C 15/16** ^(2006.01)

(84) Designated Contracting States:
**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**
Designated Extension States:
BA ME

(30) Priority: **14.10.2011 EP 11185217**

(71) Applicant: **Electrolux Home Products Corporation
N.V.**
1130 Brussel (BE)

(72) Inventors:
• **Blüml, Christoph**
91541 Rothenburg o. d. Tauber (DE)
• **Huget, Frank**
91541 Rothenburg o. d. Tauber (DE)
• **Krug, Herbert**
91541 Rothenburg o. d. Tauber (DE)

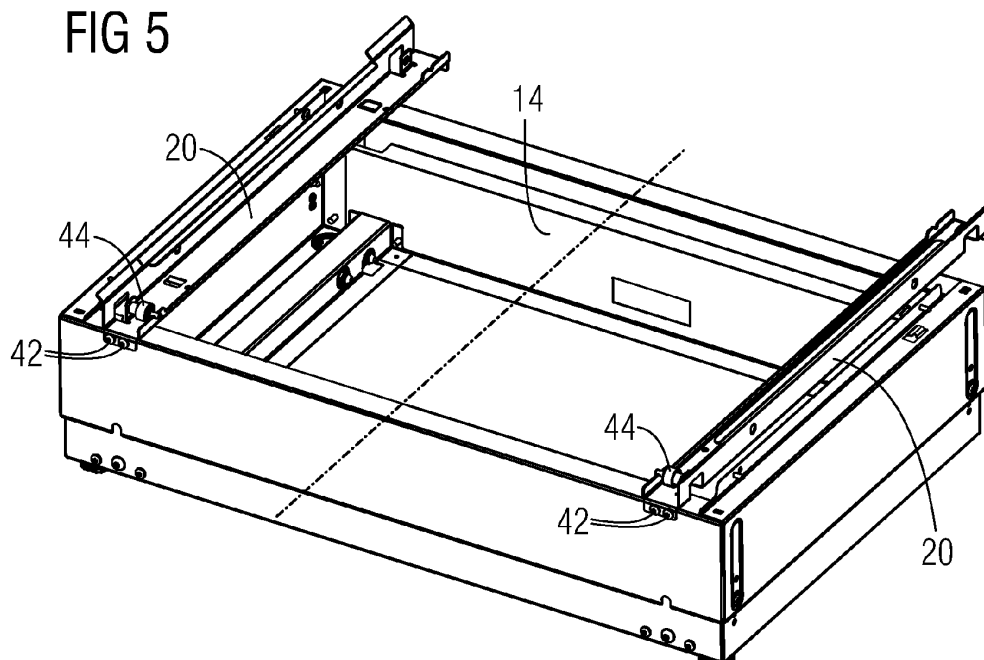
(74) Representative: **Baumgartl, Gerhard Willi**
Electrolux Dienstleistungs GmbH
Group Intellectual Property
90327 Nürnberg (DE)

(54) **A cooking appliance including a plinth and a drawer**

(57) The present invention relates to a cooking appliance (10) including a plinth (14) and a drawer (16). The cooking appliance (10) includes a corpus (12) arranged or arrangeable above the plinth (14). The drawer (16) is arranged or arrangeable in a lower portion of the corpus (12) and above the plinth (14). The plinth (14) is connected or connectable to the corpus (12) by a set of screws (26) and a corresponding set of screw holes (38),

40). The cooking appliance (10) includes a pair of elongated drawer rails (20) for moving the drawer (16) into and out of the corpus (12). The plinth (14) is selectively connected or connectable to the corpus (12) either at a predetermined front position or at a predetermined back position. Each of the drawer rails (20) is symmetric in respect of an axis and/or plane perpendicular to the longitudinal axis of said drawer rail (20). Further, the present invention relates to a corresponding drawer rail (20).

FIG 5



Description

[0001] The present invention relates to a cooking appliance including a plinth and a drawer according to the preamble of claim 1. Further, the present invention relates to a drawer rail according to the preamble of claim 10.

[0002] A usual cooking appliance includes a plinth and a drawer. The plinth forms the basement of the cooking appliance. A corpus of the cooking appliance is arranged above the plinth in a predetermined position. The drawer is arranged in a lower portion of the corpus and arranged above the plinth. A cooking hob is often arranged on the top of the corpus. An oven cavity is typically arranged in a central portion of the corpus, i.e. between the cooking hob and the drawer.

[0003] However, the position of the corpus relative to the plinth is defined, so that the user cannot change said position. Further, the drawer requires two different drawer rails for the left hand side and right hand side, which increase the complexity of the cooking appliance.

[0004] It is an object of the present invention to provide a cooking appliance, wherein the position of the plinth in view of the corpus can be changed by the user and the complexity is reduced.

[0005] The object of the present invention is achieved by the cooking appliance according to claim 1.

[0006] According to the present invention the plinth is selectively connected or connectable to the corpus either at a predetermined front position or at a predetermined back position, and each of the drawer rails is symmetric in respect of an axis and/or plane perpendicular to the longitudinal axis of said drawer rail.

[0007] The main idea of the present invention is that the plinth is connectable to the corpus at two different predetermined positions on the one hand and the symmetric drawer rails on the one hand. The user can select and easily change the position of the plinth at the corpus, wherein the symmetric drawer rails allows a simple structure of the components by low complexity.

[0008] Preferably, the drawer rails are connected or connectable to the plinth by screws. Screws are easy to handle by the user.

[0009] Further, the drawer rails may be connected or connectable to a front wall of the plinth in the front position and to a rear wall of the plinth in the back position. In this way, the position of drawer rails can be adapted to the position of the corpus.

[0010] In particular, the drawer rails of the pair of drawer rails are identical to each other.

[0011] Moreover, the corpus may comprise set of screw holes for connecting the plinth at the front position and another set of screw holes for connecting the plinth (14) at the back position.

[0012] Preferably, the drawer rail comprises a fixation flange in each end portion, wherein the fixation flange in the front end portion is provided for fixing a front wheel and the identical fixation flange in the rear end portion is

provided as a wheel stop for a rear wheel mounted at the rear portion of the drawer.

[0013] Further, the drawer rail may comprise two clamp fixations corresponding to one fixation flange in each case.

[0014] Moreover, the drawer rail may comprise an entry flange at each portion.

[0015] For example, the entry flange is a prolongation of a vertical part of the drawer rail, wherein the entry flanges are inclined outwardly.

[0016] The object of the present invention is further achieved by the drawer rail according to claim 10.

[0017] According to the present invention the drawer rail is symmetric in respect of an axis and/or plane perpendicular to the longitudinal axis of said drawer rail.

[0018] Preferably, the drawer rail comprises a fixation flange in each end portion, wherein the fixation flange in the front end portion is provided for fixing a front wheel and the identical fixation flange in the rear end portion is provided as a wheel stop for a rear wheel mounted at the rear portion of the drawer.

[0019] Further, the drawer rail may comprise two clamp fixations corresponding to one fixation flange in each case.

[0020] In particular, the drawer rail may comprise an entry flange at each portion.

[0021] For example, the entry flange is a prolongation of a vertical part of the drawer rail, wherein the entry flanges are inclined outwardly.

[0022] In particular, the drawer rail may be provided for a cooking appliance.

[0023] Novel and inventive features of the present invention are set forth in the appended claims.

[0024] The present invention will be described in further detail with reference to the drawings, in which

FIG 1 illustrates a perspective view of a cooking appliance with a plinth in a front position according to a preferred embodiment of the present invention,

FIG 2 illustrates a perspective view of the cooking appliance with the plinth in a back position according to the preferred embodiment of the present invention,

FIG 3 illustrates a perspective view of the plinth according to the preferred embodiment of the present invention,

FIG 4 illustrates a perspective view at a lower portion of a corpus of the cooking appliance according to the preferred embodiment of the present invention,

FIG 5 illustrates a perspective view of the plinth with drawer rails installed for the front position according to the preferred embodiment of the

present invention,

FIG 6 illustrates a perspective front view of the plinth with a drawer for the front position according to the preferred embodiment of the present invention,

FIG 7 illustrates a perspective front view of the plinth with drawer rails installed for the back position according to the preferred embodiment of the present invention,

FIG 8 illustrates a perspective rear view of the plinth with drawer rails installed for the back position according to the preferred embodiment of the present invention,

FIG 9 illustrates a perspective rear view of the plinth with the drawer for the front position according to the preferred embodiment of the present invention,

FIG 10 illustrates a perspective view at an inner side of the drawer rail according to the preferred embodiment of the present invention,

FIG 11 illustrates a perspective view at an outer side of a portion of the drawer rail according to the preferred embodiment of the present invention,

FIG 12 illustrates a front view of two symmetric drawer rails according to the preferred embodiment of the present invention, and

FIG 13 illustrates a left view of the two symmetric drawer rails according to the preferred embodiment of the present invention.

[0025] FIG 1 illustrates a perspective view of a cooking appliance 10 with a plinth 14 in a front position according to a preferred embodiment of the present invention. The cooking appliance 10 is a freestanding cooking appliance.

[0026] The cooking appliance 10 includes a corpus 12, a plinth 14 and a drawer 16. Further, the cooking appliance 10 includes a cooking hob 22 and an oven cavity 24. The plinth 14 forms the basement of the cooking appliance 10. The corpus 12 is arranged above the plinth 14. The drawer 16 is arranged in a lower portion of the corpus 12. The drawer 16 is arranged directly above the plinth 12. The cooking hob 22 is arranged on the top of the corpus 12. The oven cavity 24 is arranged in a central portion of the corpus 12, i.e. between the cooking hob 22 and the drawer 16.

[0027] In the delivery condition of the cooking appliance 10 the plinth 12 has a predetermined front position. In this example, a front edge of the plinth 14 in the first

position is about 24 mm behind a front edge of the corpus 12. The cooking appliance can be reconstructed by the user, so that the plinth 14 is a back position by the user.

[0028] FIG 2 illustrates a perspective view of the cooking appliance 10 with the plinth 12 in a back position according to the preferred embodiment of the present invention. In this example, a front edge of the plinth 14 in the back position is about 94 mm behind a front edge of the corpus 12. The back position of the plinth 14 allows the use of a wooden plinth bar without cutting or sewing it, for example.

[0029] The plinth 14 comprises two lateral flanges 18 for connecting said plinth 14 to the corpus 12. Further, the cooking appliance 10 comprises two lateral drawer rails 20, on which the drawer 16 is moveable. The drawer rails 20 are fixed on the plinth 12.

[0030] FIG 3 illustrates a perspective view of the plinth 14 according to the preferred embodiment of the present invention. The plinth 14 comprises a front wall, two side walls and a rear wall.

[0031] The flange 18 forms the top part of each side wall of the plinth 14. Two screws 26 are inserted in corresponding screw holes of each flange 18. The four screws 26 are provided for fixing the plinth 14 at the corpus 12.

[0032] The front wall and the rear wall of the plinth 14 comprise two cut-outs 28 in each case. Said cut-outs 28 are formed in vertical flanges of the front wall and rear wall, respectively. The cut-outs 28 are provided for fastening the drawer rails 20.

[0033] Further, each side wall of the plinth 14 comprises a hook 30. The hooks 30 are arranged on horizontal portions of said side walls. The hooks 30 are further arranged beside and outside of the flanges 18. The hooks 30 correspond with slots 32 and 34 at the bottom of the corpus 12.

[0034] FIG 4 illustrates a perspective view at a lower portion of the corpus 12 of the cooking appliance 10 according to the preferred embodiment of the present invention. The corpus 12 includes two side panels 36.

[0035] The slots 32 and 34 are arranged in horizontal portions of the side panels 36. The one pair of slots 32 is provided for the front position of the plinth 14. The other pair of slots 34 is provided for the back position of the plinth 14.

[0036] The side panels 36 comprise screw holes 38 and 40. Said screw holes 38 and 40 correspond with the screws 26 of the plinth 14. Four screw holes 38 are provided for the front position of the plinth 14. Four other screw holes 40 are provided for the back position of the plinth 14. The screw holes 38 and 40 are arranged in inner vertical flanges at the bottom of the side panels 36.

[0037] FIG 5 illustrates a perspective view of the plinth 14 with a pair of drawer rails 20 installed for the front position according to the preferred embodiment of the present invention.

[0038] The drawer rails 20 are arranged above the cut-outs 28 and substantially above the side walls of the

plinth 14. The drawer rails 20 are arranged between the two flanges 18. The drawer rails 20 are arranged in parallel to the flanges 18. The drawer rails 20 are fixed by four screws 42 at the front wall of the plinth 14. The drawer rails 20 protrude behind the rear wall of the plinth 14. Each drawer rail 20 comprises a front wheel 44 in its front portion.

[0039] FIG 6 illustrates a perspective front view of the plinth 14 with the drawer 16 for the front position according to the preferred embodiment of the present invention. In FIG 6 the drawer 16 is set on the plinth 14 according to FIG 5.

[0040] FIG 7 illustrates a perspective front view of the plinth 14 with drawer rails 20 installed for the back position according to the preferred embodiment of the present invention.

[0041] The drawer rails 20 are arranged above the cut-outs 28 and substantially above the side walls of the plinth 14. The drawer rails 20 are arranged between the two flanges 18. The drawer rails 20 are arranged in parallel to the flanges 18. The drawer rails 20 are fixed by four screws 42 at the rear wall of the plinth 14 in the same way as in FIG 5, in which the drawer rails 20 are fixed by the four screws 42 at the front wall of the plinth 14. The drawer rails 20 protrude in front of the front wall of the plinth 14. Each drawer rail 20 comprises a front wheel 44 in its front portion.

[0042] FIG 8 illustrates a perspective rear view of the plinth 14 with drawer rails 20 installed for the back position according to the preferred embodiment of the present invention. FIG 8 clarifies that the drawer rails 20 are fixed by four screws 42 at the rear wall of the plinth 14 in the same way as in FIG 5. For the front position the four screws 42 are fixed at the front wall of the plinth 14, while the four screws 42 for the back position are fixed at the rear wall of the plinth 14.

[0043] FIG 9 illustrates a perspective rear view of the plinth 14 with the drawer 16 for the front position according to the preferred embodiment of the present invention. FIG 9 shows that the drawer 16 comprises a pair of rear wheels 46. The rear wheels 46 are provided for rolling on the drawer rail 20. While the rear wheels 46 are fastened at the rear portion of the drawer 16, the front wheels 44 are fastened at the front portion of the drawer rail 20.

[0044] FIG 10 illustrates a perspective view at an inner side of the drawer rail 20 according to the preferred embodiment of the present invention.

[0045] The drawer rail 20 comprises a fixation flange 48 in each end portion. The fixation flange 48 has two different functions. The front wheel 44 is fixable at the fixation flange 48 by using an axle 50. Further, the fixation flange 48 acts as a wheel stop for the rear wheels 46. The front portion and the rear portion of the drawer wheel 20 are symmetric. Thus, the same drawer wheel 20 can be used for the left hand side and right hand side.

[0046] In FIG 10 the front wheel 44 is fixed at the fixation flange 48 at the right hand side, while the other fixation flange 48 at the left hand side acts as the wheel

stop for the rear wheel 46 at the drawer 16. Thus, the drawer rail 20 in FIG 10 is provided for the right side of the cooking appliance 10. The same drawer rail 20 can be used for the left side of the cooking appliance 10, when the front wheel 44 is removed from the fixation flange 48 on the right hand side and fixed at the fixation flange 48 on the left hand side. Thus, a set of two identical drawer rails 20 can be used as a pair of drawer rail 20 for the left hand side and right hand side.

[0047] Further, an entry flange 60 is arranged at both end portions of the drawer rail 20. The entry flanges 60 are prolongations of a vertical part of the drawer rail 20. The entry flanges 60 are inclined outwardly. The insertion of the drawer into the drawer rail 20 is simplified by the entry flanges 60.

[0048] FIG 11 illustrates a perspective view at an outer side of a portion of the drawer rail 20 according to the preferred embodiment of the present invention. An axle screw 58 is provided for fixing the axle 50. The axle screw 58 is inserted from the outer side of the drawer rail 20, while the axle is inserted from the inner side of the drawer rail 20.

[0049] FIG 12 illustrates a front view of two symmetric drawer rails 20 according to the preferred embodiment of the present invention. FIG 13 illustrates a left view of said two symmetric drawer rails 20 according to the preferred embodiment of the present invention.

[0050] A symmetry axis 52 characterizes the symmetry between the both drawer rails 20 in FIG 12. A symmetry axis 54 characterizes the symmetry between the front portion and rear portion of each drawer rail 20 in FIG 12.

[0051] Further, the drawer rail 20 comprises two clamp fixations 56. Each clamp fixation 56 corresponds with one of the fixation flanges 48. The clamp fixation 56 retains the rear wheel 46 of the drawer 16, when the corresponding fixation flange 48 acts as wheel stop. The entry flange 60 is arranged at both end portions of the drawer rail 20. The entry flanges 60 are inclined outwardly.

[0052] The change of the position of the plinth 14 can be performed by the user. In the delivery condition of the cooking appliance 10 the plinth 12 has the front position shown in FIG 1. Sometimes, the user wants to have the back position shown in FIG 2. In order to change the position, the user has to remove the drawer 16 out of the drawer rails 20. Then, the screws 42 have to be disconnected from the front wall of the plinth 14, and the drawer rail 20 can be removed. Next, the screws 26 connecting the corpus 12 to the plinth 14 are removed, so that the corpus 12 and the plinth 14 can be disjoint. Then, the plinth 14 is placed at the corpus 12 in the back position. As next, the screws 26 connecting the corpus 12 to the plinth 14 are reinserted again. Then, the drawer rails 20 are inserted, and the screws 42 are screwed into the front wall of the plinth 14. At last, the drawer is reinserted again.

[0053] Although an illustrative embodiment of the present invention has been described herein with reference to the accompanying drawings, it is to be under-

stood that the present invention is not limited to that precise embodiment, and that various other changes and modifications may be affected therein by one skilled in the art without departing from the scope or spirit of the invention. All such changes and modifications are intended to be included within the scope of the invention as defined by the appended claims.

List of reference numerals

[0054]

10	cooking appliance
12	corpus
14	plinth
16	drawer
18	flange
20	drawer rail
22	cooking hob
24	oven cavity
26	screw
28	cut-out
30	hook
32	slot
34	slot
36	side panel
38	screw holes
40	screw holes
42	screw
44	front wheel
46	rear wheel
48	fixation flange
50	axle
52	symmetry axis
54	symmetry axis

56	clamp fixation
58	axle screw
60	entry flange

Claims

- 10 1. A cooking appliance (10) including a plinth (14) and a drawer (16), wherein:
 - the cooking appliance (10) includes a corpus (12) arranged or arrangeable above the plinth (14),
 - the drawer (16) is arranged or arrangeable in a lower portion of the corpus (12) and above the plinth (14),
 - the plinth (14) is connected or connectable to the corpus (12) by a set of screws (26) and a corresponding set of screw holes (38, 40), and
 - the cooking appliance (10) includes a pair of elongated drawer rails (20) for moving the drawer (16) into and out of the corpus (12),
- 25 **characterized in, that** the plinth (14) is selectively connected or connectable to the corpus (12) either at a predetermined front position or at a predetermined back position, and each of the drawer rails (20) is symmetric in respect of an axis and/or plane perpendicular to the longitudinal axis of said drawer rail (20).
- 30 2. The cooking appliance according to claim 1, **characterized in, that** the drawer rails (20) are connected or connectable to the plinth (14) by screws (42).
- 35 3. The cooking appliance according to claim 1 or 2, **characterized in, that** the drawer rails (20) are connected or connectable to a front wall of the plinth (14) in the front position and to a rear wall of the plinth (14) in the back position.
- 40 4. The cooking appliance according to any one of the preceding claims, **characterized in, that** the drawer rails (20) of the pair of drawer rails (20) are identical to each other.
- 45 5. The cooking appliance according to any one of the preceding claims, **characterized in, that** the corpus (12) comprises set of screw holes (38) for connecting the plinth (14) at the front position and another set of screw holes (40) for connecting the plinth (14) at the back position.
- 50 55

6. The cooking appliance according to any one of the preceding claims,
characterized in, that
the drawer rail (20) comprises a fixation flange (48) in each end portion, wherein the fixation flange (48) in the front end portion is provided for fixing a front wheel (44) and the identical fixation flange (48) in the rear end portion is provided as a wheel stop for a rear wheel (46) mounted at the rear portion of the drawer (16). 5
7. The cooking appliance according to claim 6,
characterized in, that
the drawer rail (20) comprises two clamp fixations (56) corresponding to one fixation flange (48) in each case. 15
8. The cooking appliance according to any one of the preceding claims,
characterized in, that
the drawer rail (20) comprises an entry flange at each portion. 20
9. The cooking appliance according to claim 8,
characterized in, that
the entry flanges (60) are prolongation of a vertical part of the drawer rail (20), wherein the entry flanges (60) are inclined outwardly. 25
10. An elongated drawer rail (20) for a cooking appliance (10) including a plinth (14) and a drawer (16), wherein a pair of said drawer rails (20) are provided for moving the drawer (16) into and out of the corpus (12),
characterized in, that
the drawer rail (20) is symmetric in respect of an axis and/or plane perpendicular to the longitudinal axis of said drawer rail (20). 30 35
11. The drawer rail according to claim 10 or 11, **characterized in, that**
the drawer rail (20) comprises a fixation flange (48) in each end portion, wherein the fixation flange (48) in the front end portion is provided for fixing a front wheel (44) and the identical fixation flange (48) in the rear end portion is provided as a wheel stop for a rear wheel (46) mounted at the rear portion of the drawer (16). 40 45
12. The drawer rail according to claim 10 or 11, **characterized in, that**
the drawer rail (20) comprises two clamp fixations (56) corresponding to one fixation flange (48) in each case. 50
13. The drawer rail according to any one of the claims 10 to 12,
characterized in, that
the drawer rail (20) comprises an entry flange at each portion. 55
14. The drawer rail according to claim 13,
characterized in, that
the entry flanges (60) are prolongation of a vertical part of the drawer rail (20), wherein the entry flanges (60) are inclined outwardly.
15. The drawer rail according to any one of the claims 10 to 14,
characterized in, that
the drawer rail (20) is provided for a cooking appliance according to any one of the claims 1 to 9.

FIG 1

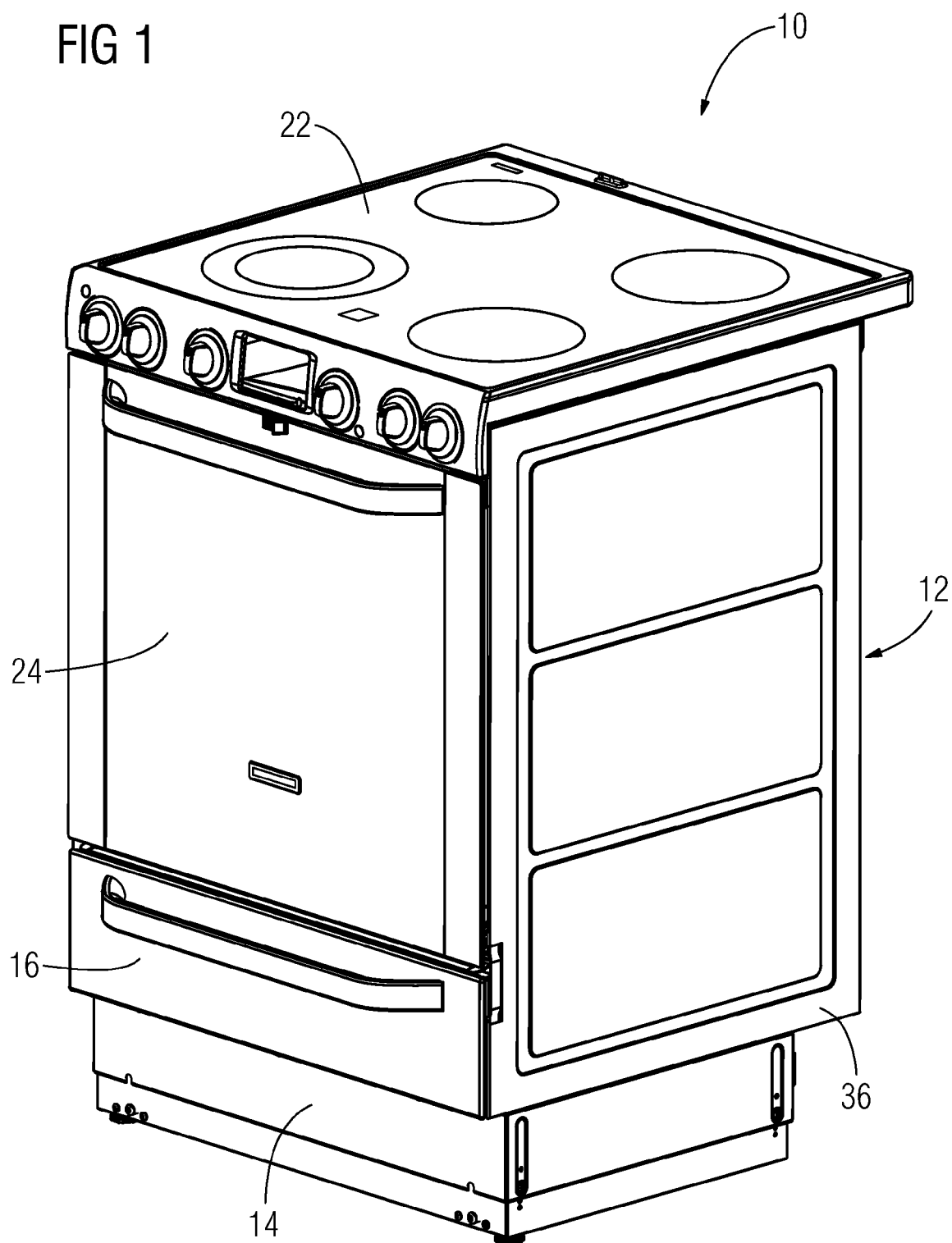


FIG 2

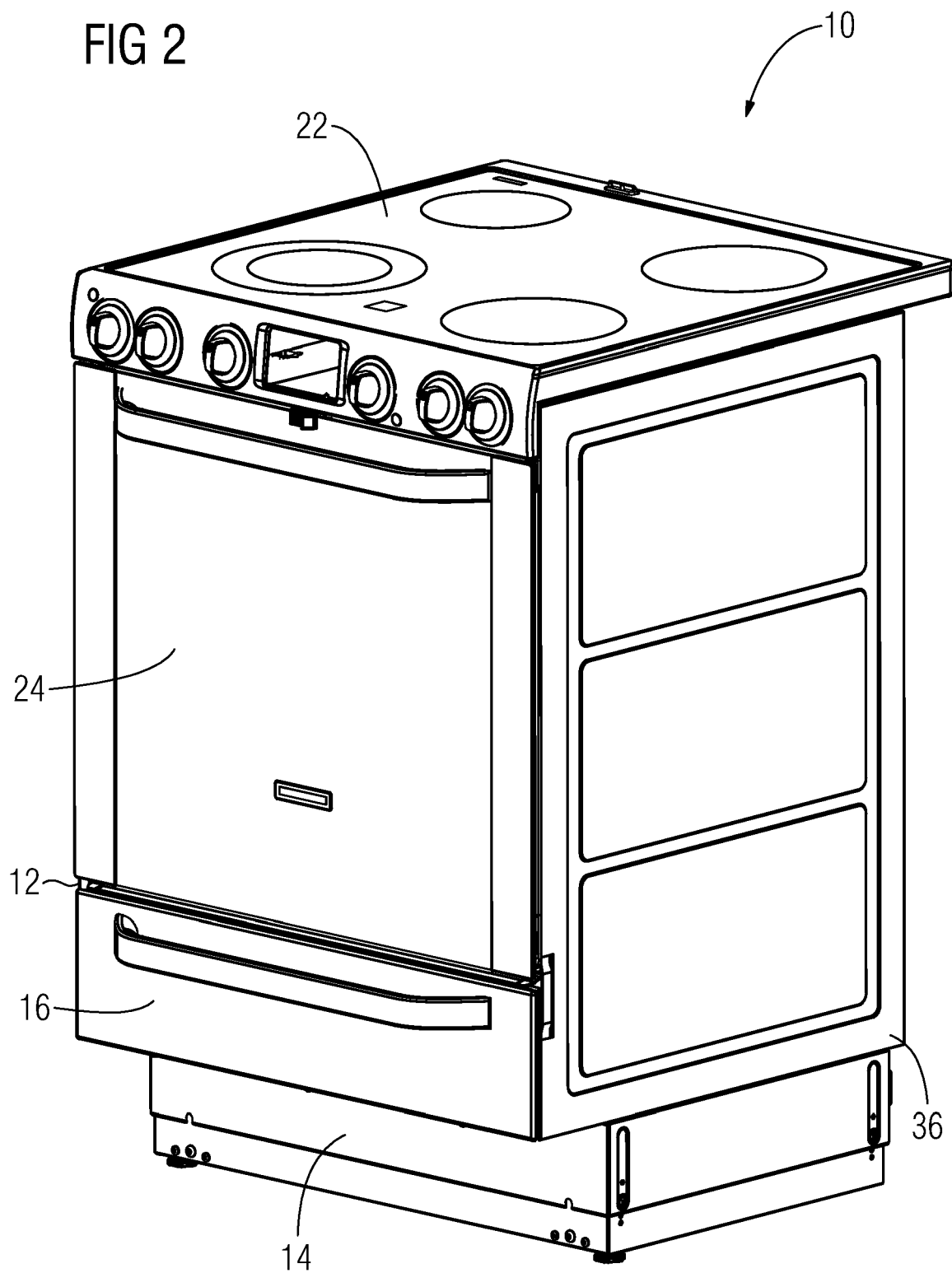


FIG 3

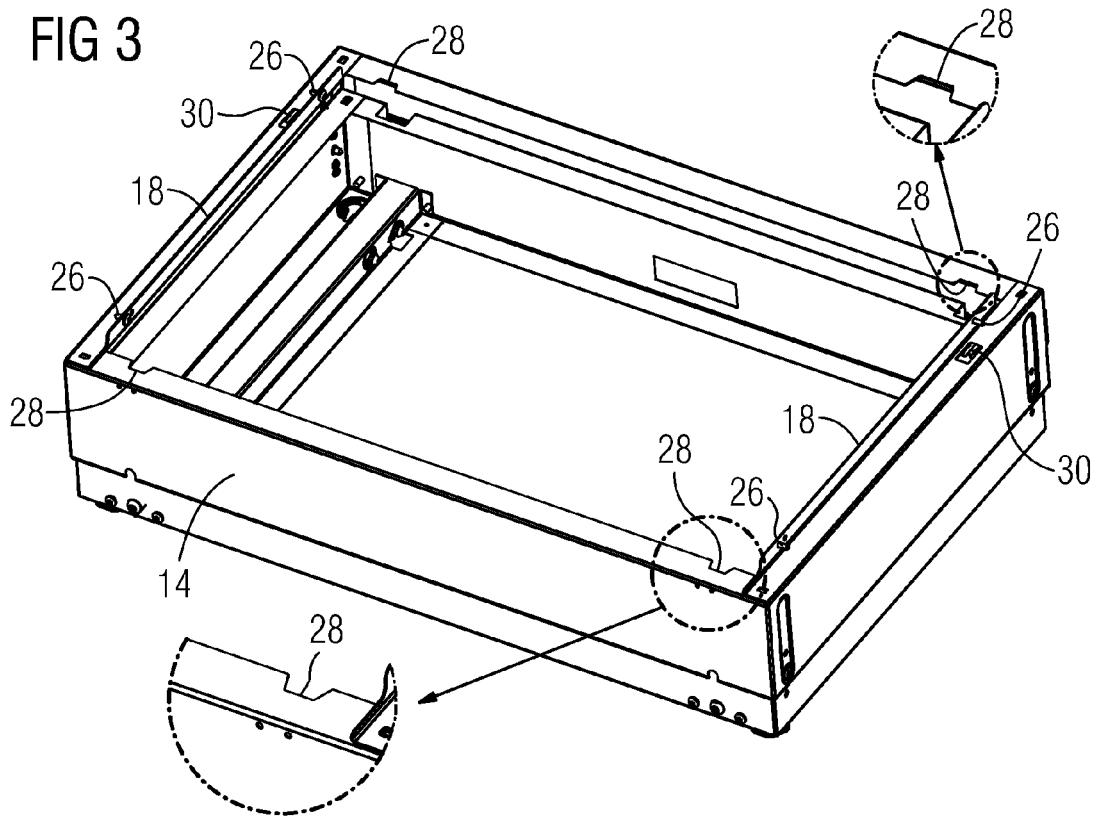


FIG 4

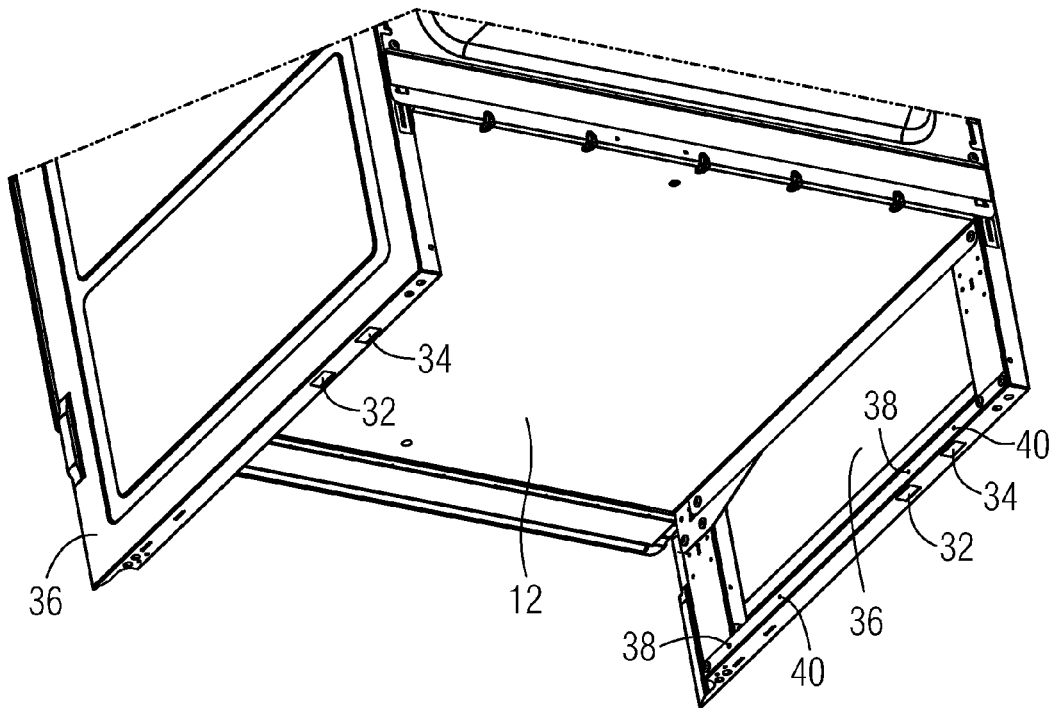


FIG 5

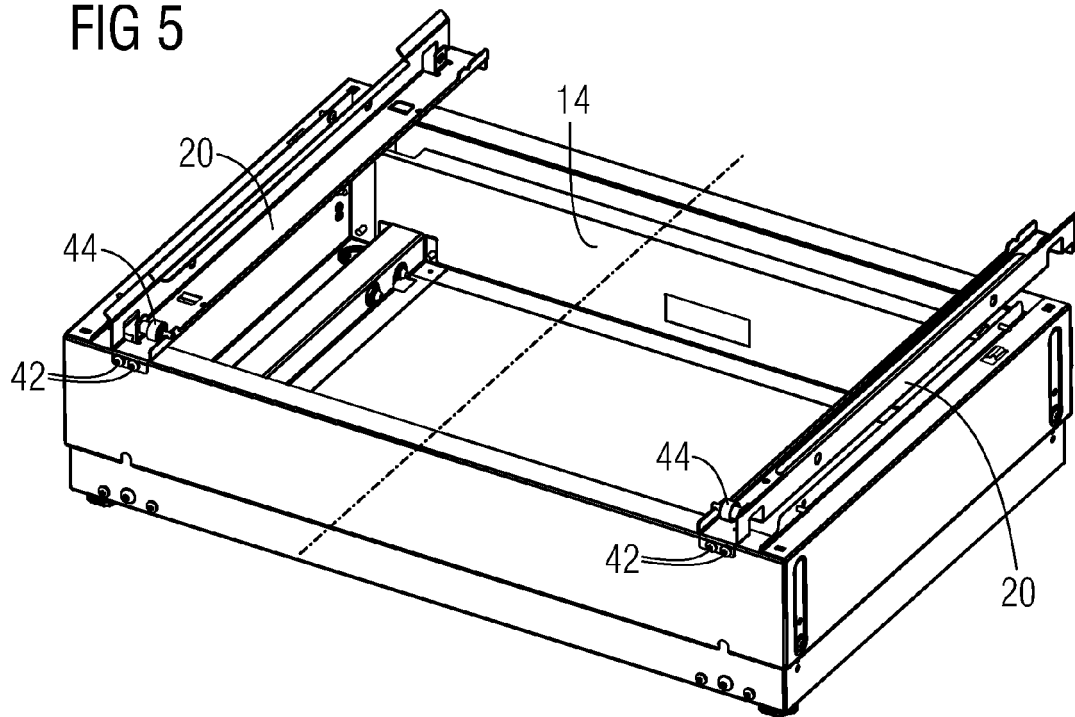


FIG 6

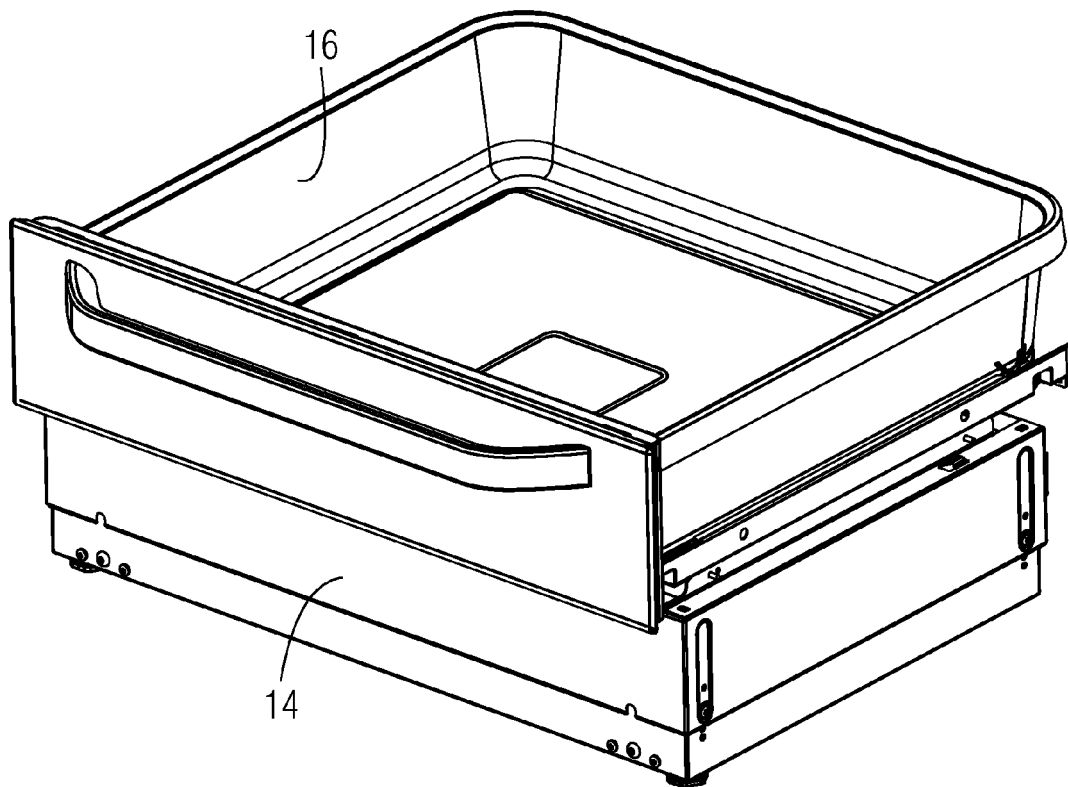


FIG 7

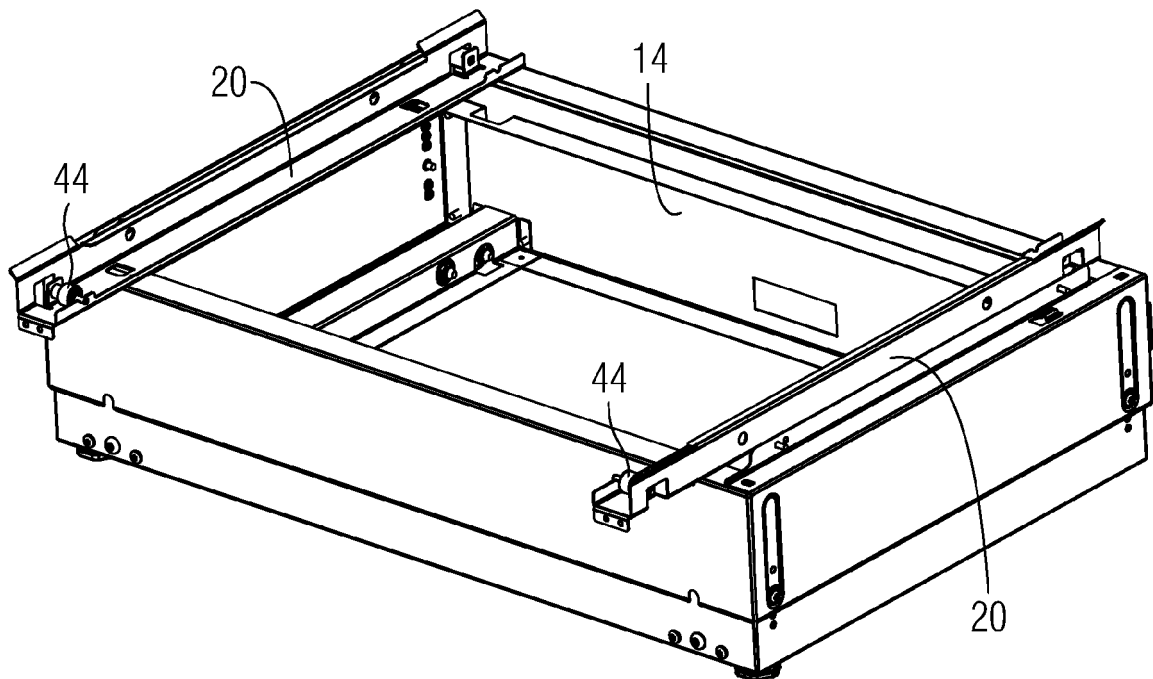


FIG 8

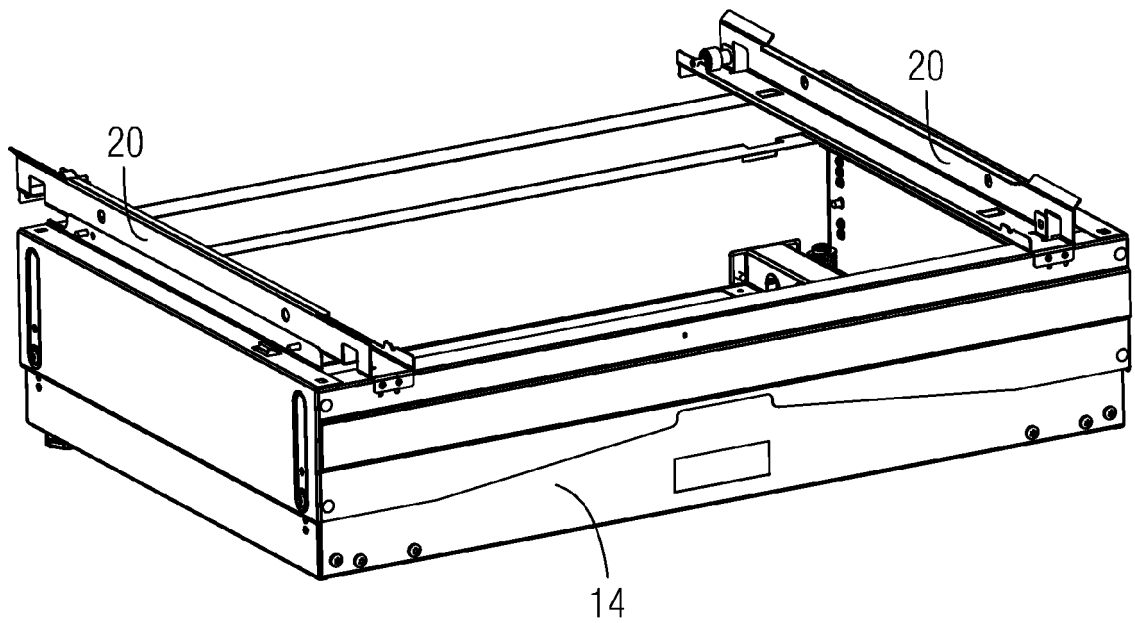


FIG 9

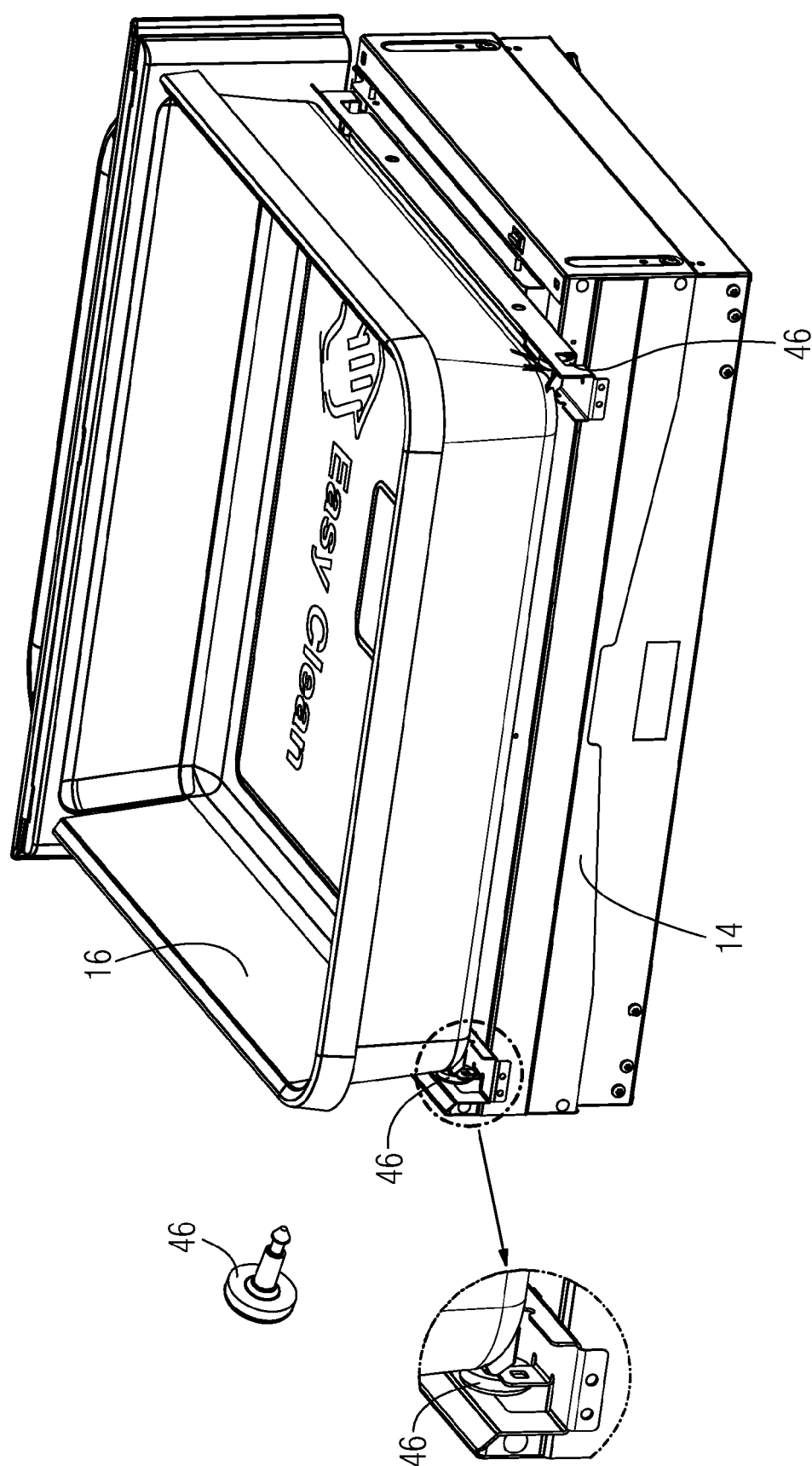


FIG 10

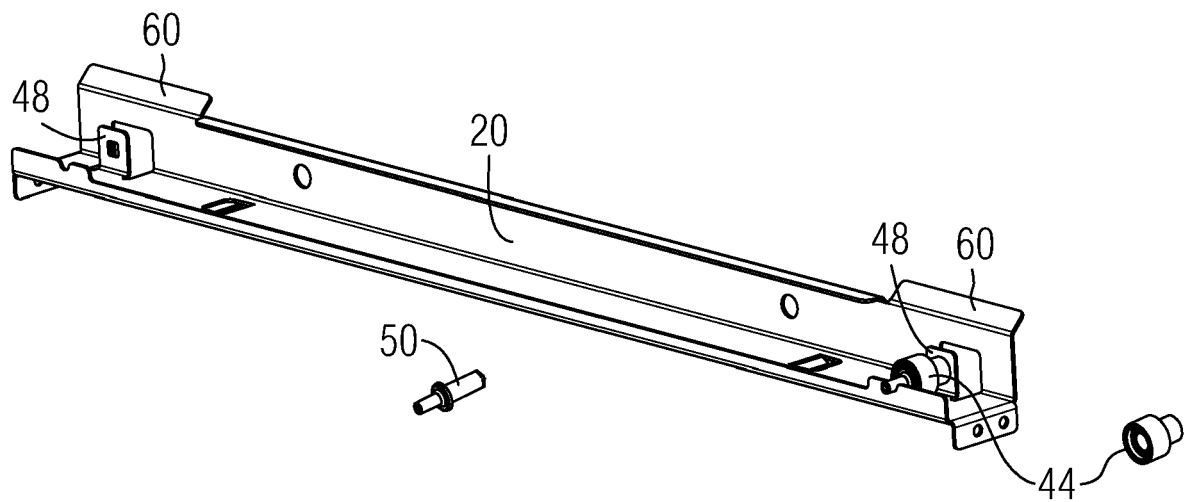


FIG 11

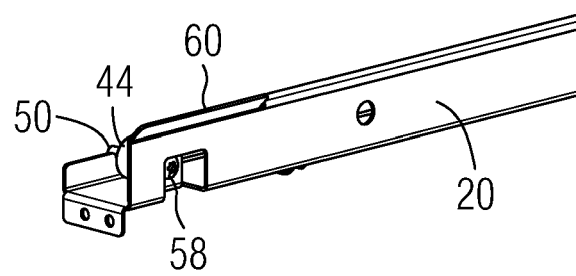


FIG 12

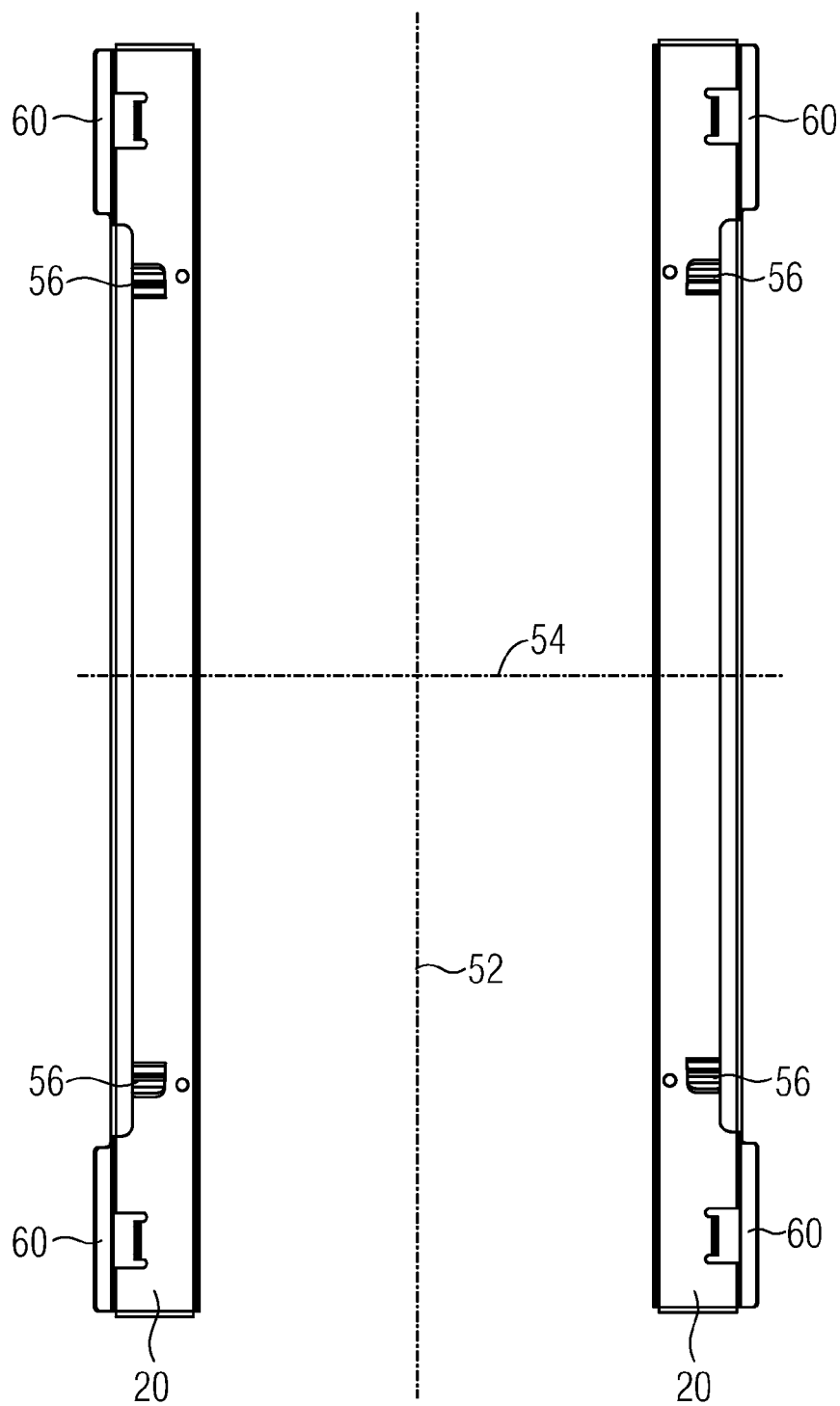


FIG 13

