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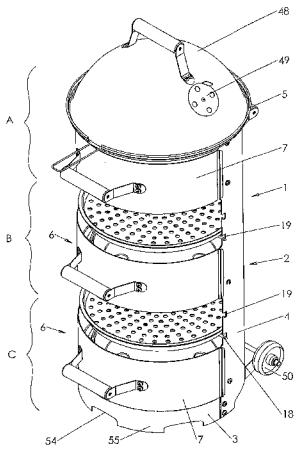

Fig 1

(57) **Abstract**: An outdoor barbecue has a plurality of cooking stations located vertically one above the other in a stacked arrangement. Each cooking station is provided with an independent source of heat therebeneath. Each cooking station is provided with means for locating one of a conventional barbecue grill and a removable plate at a predetermined position above the respective source of heat for that station. As a result, either conventional grilled barbecue food may be grilled on a grill at the station or an individual pizza may be cooked on a plate at the station. The barbecue may be provided in a unitary form with a preset number of stations in the stack, or alternatively in a modular form in which each modulus effectively provides a single cooking station, enabling a user to create a stack of cooking stations located one above another with a selected number of cooking stations in the stack.

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OUTDOOR BARBECUES

Background

This disclosure relates to outdoor barbecues.

Barbecues commonly comprise a fire box for charcoal or wood with an ash pan beneath, and with a cooking station above the fire box typically on a grill surface or on a horizontal spit.

Pizzas are traditionally cooked in a wood or charcoal fired oven with a heated stone surface.

More recently, barbecues have been adapted to use gas or even electricity as the fuel, often with lava rocks to give a similar impression to a charcoal grill, and may have both one or more grills at lower levels and a horizontal spit at a higher level. A so-called patio fireplace/grill/smoker has also been marketed, and comprises a firebox at its base with a chimney above the firebox with a number of cooking stations one above the other in the chimney. The chimney has a plurality of openable doors so that food can be located at widely different heights above the fire box. By closing all the doors, the product operates as a smoker. By removing grills for food and opening doors near the base, the product operates as a fire with a chimney.

Gas fired and electrical pizza ovens are also supplied for commercial pizza restaurants, and these may be stacked one above the other. Each oven commonly has a heated lower surface to mimic the effect of the stone surface of a traditional pizza oven. Each oven may take several individual pizzas, which may be in individual pizza dishes typically fed into and out of the oven on a wooden paddle.

So far as the present Inventors are aware, no satisfactory arrangement has previously been proposed for cooking pizzas in an outdoor barbecue. One problem is that pizzas are typically cooked in pizza ovens at a temperature that would cook traditional grilled barbecue

food so fast that its exterior would be burned and inedible before the interior was cooked. The present Inventors are not aware of any outdoor barbecue that will allow the satisfactory simultaneous cooking of conventional grilled barbecue food and of a pizza.

Summary

According to a first aspect of the present disclosure, there is provided an outdoor barbecue, comprising a plurality of cooking stations located vertically one above the other in a stacked arrangement; each cooking station being provided with an independent source of heat therebeneath; and each said cooking station being provided with means for locating one of a conventional barbecue grill and a removable plate at a predetermined position above the respective source of heat for that station whereby to allow cooking of at least one of grilled barbecue food and an individual pizza on a plate at said station.

The independent sources of heat may comprise individual electrical heating elements or individual gas burners, optionally with lava rocks, but preferably each said source of heat comprises a firebox with a surface for burning solid fuel, preferably charcoal or wood thereon, and collecting ash and cinders. Each said firebox may have an openable front for access thereto, and a removable tray for solid fuel and ash and cinders.

Preferably, the locating means allow a said plate and a said grill to be located interchangeably at a said cooking station. The locating means may allow them to be positioned at one of a number of selected heights above the respective source of heat.

The barbecue may be provided in a unitary form, or alternatively in a modular form in which each modulus effectively provides a single cooking station, enabling a user to create a stack of cooking stations located one above another with a selected number of cooking stations in the stack.

The uppermost cooking station is preferably provided with a domed lid, preferably a vented domed lid, suitably provided with a handle.

The uppermost cooking station in the unitary arrangement is suitably provided with a rim structure comprising a generally flat ledge on which the domed lid may be supported and a circumextending upstanding wall preventing the lid from slipping off the ledge in use. In the modular arrangement, each cooking station may be provided with a similar rim structure so that either a further cooking station could be stacked above it with its base standing on the ledge and being prevented from slipping off the ledge by the upstanding wall, or it could serve as the uppermost cooking station, optionally making use of a domed lid.

The upstanding wall may be provided with a plurality of grooves therein adapted to support opposite end portions of the skewers of kebabs.

The barbecue may be provided with at least one pair of wheels enabling the barbecue as a whole to be wheeled into a selected position for use.

Brief Description of the Drawings

A number of embodiments are described in more detail hereinbelow by way of example only with reference to the accompanying drawings in which:-

Fig. 1 is an overall perspective view of an outdoor barbecue;

Fig. 2 is a side elevational view of the barbecue of Fig. 1;

Fig. 3 is a front elevational view of the barbecue of Figs. 1 and 2;

Fig. 4 is a view similar to Fig. 2 showing the barbecue being wheeled into position for use;

Fig. 5 is an exploded view of the barbecue of Figs. 1 to 4;

Fig. 6 is a view similar to Fig. 1 but with the domed lid removed to allow conventional barbecue grilling on the uppermost cooking station, and with respective removable handles coupled to one removable plate and to a tray for solid fuel;

Fig. 7 is an enlarged sectional view illustrating coupling of the handle to a said tray;

Fig. 8 illustrates opening of the fronts of each firebox;

Fig. 9 is an enlarged partially cut away rear view of a firebox front door illustrating how it is mounted to its fixed firebox platform;

Fig. 10 is a partial sectional view taken along the line X-X in Fig. 9;

Fig. 11 is an enlarged scrap view illustrating location slots for pins associated with a pizza plate on side portions of the barbecue;

Fig. 12 shows removal of a pizza plate using a removable handle therefor;

Fig. 13 shows a firebox tray removed for filling with solid fuel;

Fig. 14 shows the filled firebox tray replaced;

Figs. 15 and 16 are enlarged scrap views illustrating location means for a grill for conventional barbecuing at the uppermost cooking station;

Fig. 17 is an enlarged view of a removable handle for a pizza plate;

Fig. 18 is a vertical sectional view through the barbecue showing pizzas being cooked;

Fig. 19 is a front elevational view of a modular barbecue comprising a stack of cooking station modules;

Fig. 20 is a side elevational view of the barbecue of Fig. 19;

Fig. 21 is a perspective view of the modular barbecue of Figs. 19 and 20, but with the modules and the domed lid shown separated in the vertical direction;

Fig. 22 is a view illustrating how modules may be combined to provide stacks of different heights;

Fig. 23 shows how a base module may be used by itself;

Fig. 24 is an overall perspective view of a further embodiment of outdoor barbecue; and

Fig. 25 is a perspective view of the uppermost cooking station of the barbecue of Fig. 24 with the lid removed.

Description of Preferred Embodiments

The apparatus shown in Figs. 1 to 18 comprises an outdoor barbecue adapted, as shown in Fig. 4, to be wheeled into a desired position for use. The barbecue 1 is of generally cylindrical over all form, having a plurality (here: three) of cooking stations A, B and C

positioned vertically one above the other to form a stack within a housing 2 formed by a base 3, a curved back panel 4 that closes the rear half of the housing, and a top band 5, as best shown in the exploded view of Fig. 5. The lower cooking stations B and C are adapted for cooking pizzas, while the uppermost cooking station A comprises a conventional barbecue grill. It will be self-evident that there may be more than, or fewer than, three cooking stations.

Each cooking station has its own independent source of heat. The illustrated embodiment is adapted for burning solid fuel such as charcoal, but alternative embodiments may have other sources of heat: for example individually controllable electric heating elements or individual gas burners, each provided with their own gas tap and fueled from a single gas canister (which may be a separate free-standing gas canister coupled to the barbecue by a gas hose).

In the illustrated embodiment, each cooking station is provided with a firebox 6, formed at its rear half by a portion of back panel 4 and closed at its front half by a front door assembly 7, within which firebox a removable tray 8 for solid fuel 9, and any ash and cinders, is located, the tray 8 being supported in the housing 2 on a platform 10 fixed to the back panel 4. The details of the firebox front door assembly 7 and how it is mounted to the housing are best shown in Figs. 9 and 10. A firebox front door 7 is formed from a panel 11 with a similar curve to that of back panel 4, to which a handle 12 is mounted by fixings 13. The fixings also mount angled locating tongues 14 on the inner side of the firebox front door, these tongues 14 being adapted to be received in respective openings 15 formed in upper edge 16 of each platform 10 to locate the door assembly. Edges of panel 11 are displaced outwardly to overlap corresponding edges of the back panel 4 when the firebox front door is correctly located by the tongues 14.

A removable perforated plate 17 suitable for cooking a pizza thereon is shown mounted above the firebox at each of cooking stations B and C. The pizza plate 17 is located by means of diametrically opposed side pins 18 that locate in corresponding notches 19 formed in the respective edges 20 of back panel 4, and by a projection 21 (as best shown in

the side views of Figs 2 and 4 and the sectional view of Fig. 18, that is located in a corresponding slot 22 in back panel 4. There may be more than one notch 19 (preferably two) in each edge 20 above a firebox, with corresponding slots 22, to allow the height of the pizza plate above the source of heat to be selected.

In order to allow the respective trays 8 for solid fuel and the respective pizza plates 17 to be removed from their positions respectively on a platform 10 and located by pins 18 and projection 21 in notches 19 and slot 22, removable handles 23 and 24 are provided. These handles are of generally similar form, but differently sized to take account of the shallow depth of a pizza plate 17 and the deeper depth of a solid fuel tray 8. A handle 24 is shown in section in cooperation with a tray 8 in Fig. 7, while a handle 23 is shown in perspective in Fig. 17. Each handle is formed of sheet metal bent into shape, and has a manual grip portion 25 formed by two complementary members 26 that sandwich a flat strip 27 of the sheet metal and are held together by fastenings 28. Extending forwardly of the grip portion, the handles 23, 24 are generally of trident form, comprising a central projection 29 displaced from the plane of flat strip 27 by being bent through two angles to underlie, in use, base 30 of pizza plate 17 or base 31 of tray 8, and two similar side projections 32 with overturned distal ends 33, that in use hook over edge 34 of pizza plate 17 or edge 35 of tray 8. The overturned distal ends 33 are overturned at a slight angle inwardly towards the central projection, to allow for the curvature of pizza plate 17 and tray 8, respectively. The only difference between the handles 23 and 24 is the length of the piece 36 joining the displaced central projection 29 to the remainder of the handle.

To ready the barbecue for use, each cooking station selected for use has its firebox front door 7 removed, its tray 8 removed using a handle, filled with solid fuel and replaced. The fuel is lit. The amount of air that reaches the solid fuel, and thus the rate at which it burns may be controlled by opening or closing its firebox door. In general, when the solid fuel has settled down to glowing coals, the door will be replaced and pizzas cooked on one of the lower stations by being placed on a pizza plate 17 and that pizza plate located by means of pins 18 and projection 21 in notches 19 and slot 22, using a handle therfor, or steaks, sausages, etc, cooked on a grill 37 located at the uppermost cooking station A. As best

shown in Figs. 6, 15 and 16, grill 37 is a conventional wire form barbecue grill with parallel crosswires 38 mounted to a ringwire 39, with one or more supporting crosswires 40 (here just one) extending at right angles beneath the main crosswires 38 that support food for cooking in use. The grill 37 sits on a ledge 41 formed by a rim 42 formed on top band 5, and is located by extensions 43 of crosswire 40 locating in diametrically opposed slots 44 in ledge 41, by a projection 45 formed by two crosswires 38 extending beyond ringwire 39 to extend into a slot 46 also formed in the ledge 41, and by a wire handle 45 positioned diametrically opposite projection 45, and located in a cut-out portion 47 of rim 42. As shown in Figs. 1 to 5, the conventional barbecue grill of the uppermost cooking station A is suitably provided with a domed lid 48, provided with an adjustable vent 49. The dome allows the grill to be used for smoking, or to keep cooked food warm, and rests in use on ledge 41 of rim 42 of top band 5.

Although the uppermost cooking station is best adapted for conventional grilling of barbecue food on a wire grill 37, given the open nature of the uppermost cooking station when the dome is removed, while the lower cooking stations, being more closed in nature, are better suited for cooking pizzas, since the pins 18 and projection 21 of a pizza plate 17 may be located in slots 44 and 46, respectively, while the extensions 43 and projection 45 of a wire grill 37 maybe located in notches 19 and slot 22, respectively, pizzas and conventional grilled barbecue food can in theory be cooked at any of the cooking stations.

Although this is not the intention of Applicant, because each of the cooking stations has location means at two different heights above the source of heat, a single cooking station could in theory be used to cook food simultaneously at two different heights above the same source of heat.

Wheels 50 for the barbecue 1 are mounted on an axle 51 fixed to the lower rear of back panel 4 by a bracket 52 curved to correspond with the curve of back panel 4. As best illustrated by Figs, 2 and 4, the wheels 50 are mounted so that when the barbecue stands upright on a substantially level generally horizontal surface, the wheels are just free of the surface. Tilting the barbecue backwards using a handle 53 mounted to an upper region of

back panel 4, which should never be done while any food is still being cooked or before the fires at each cooking station have been completely extinguished and the respective trays 8 emptied, results in wheels 50 making contact with the surface so that the barbecue can be wheeled around as a whole. Having the wheels just proud of the surface when the barbecue is upright and in use, reduces the possibility that it may inadvertently be moved while in use.

Lower surface 54 of base 3 is partially cut away to define legs 55 that allow circulation of air beneath the barbecue reducing the possibility that the surface below the barbecue may get too hot while the barbecue is in use.

Whereas the embodiment of outdoor barbecue described above has a fixed number of ccoking stations in its stack one above the other, the barbecue may also be provided in modular form, as explained below, with reference to Figs. 19 to 23. This has the advantage that one barbecue set with (say) a total of three cooking stations (corresponding to the three station embodiment of Figs. 1 to 18) can be adapted to form a three station, two station or single station barbecue, as shown in Fig. 22, by simply stacking a selected number of modules.

Turning first to Fig. 21, the illustrated modular barbecue set comprises a base module 56, and one or more further modules 57, superimposed in a stack above the base module 56, and provides a three cooking station barbecue that is the equivalent in modular form of the barbecue of Figs. 1 to 18. Where appropriate like reference numerals are used to refer to like parts. Base module 56 includes a base 3 and back panel 4, and includes a firebox 6 with front door 7, a platform 10 (not visible in any of the views) and a removable tray 8 for solid fuel, all as in the embodiment of Figs. 1 to 18. Its lower surface is cut away at 54. However, at its upper edge, it incorporates a top band 5.

A module 57 may be placed on base module 56, and sits on the ledge 41 within rim 42 of top band 5. Module 57 has a curved back panel 4, which in this arrangement is joined to a base band 58 extending around the lower part of the front of module 57. Module 57 also includes a firebox with a removable tray resting on a platform, and a top band 5 at its upper

surface. Between the fire box and the base band 58 are provided notches 19 for locating a removable pizza plate 17 above the firebox of the base module 56. The provision of the top band 5 means that a further module 57 may be stacked upon the first module 57. As in the first described embodiment, a pizza plate or a wire grill may in theory be supported at any of the cooking stations in the stack. Thus, although an uppermost cooking station is preferably used as a conventional barbecue grill supporting a conventional grill 37 on top band 5 provided by the uppermost module 57 with its firebox immediately therebeneath, while each of the cooking stations therebeneath are used to cook pizzas, and comprise the pizza plate locating means on a module 57 and the firebox of the module (whether a module 56 or another module 57) beneath that module 57, in theory any of the cooking stations may be used with a pizza plate or a conventional wire grill.

Although this disclosure is primarily concerned with the provision of a barbecue with a plurality of cooking stations, a base module may be used by itself in isolation as a conventional grill with optional dome, as shown in Fig. 23, or even used with a pizza plate and the dome closed to cook a pizza.

The uppermost cooking station in the unitary arrangement of Figs. 1 to 18 was provided with a rim structure comprising a generally flat ledge on which a domed lid could be supported and a circumextending upstanding wall preventing the lid from slipping off the ledge in use. In the modular arrangement of Figs. 19 to 23, each cooking station was provided with a similar rim structure so that either a further cooking station could be stacked above it with its base standing on the ledge and being prevented from slipping off the ledge by the upstanding wall, or it could serve as the uppermost cooking station, optionally making use of a domed lid.

Kebabs, namely meat, fish and/or vegetables mounted on a skewer, are frequently cooked on a barbecue. Usually the skewered food is marinated with or has an oil-including sauce applied to it to prevent it sticking to and burning on the barbecue grill. This is never entirely successful, and some of the kebab inevitably sticks to the grill, requiring the user to remove burnt food from the grill after use.

As we shall now explain, with reference to Figs. 24 and 25, the provision of a rim structure as described above modified by the provision of a plurality of grooves in the wall enables opposite end portions of skewers mounting kebabs to be supported above the source of heat without the need for a barbecue grill, which may be removed while the kebabs are cooked. Because there is nothing for the food to stick to, the amount of oil in the marinade may be reduced providing for healthier food.

Like parts are identified by the same reference numerals as in previously described embodiments.

The apparatus shown in Fig. 24 comprises an outdoor barbecue adapted to be wheeled into a desired position for use. The barbecue 1 is of generally cylindrical over all form, having a plurality (here: three) of cooking stations A, B and C positioned vertically one above the other to form a stack within a housing 2 formed by a base 3, a curved back panel 4 that closes the rear half of the housing, and a top band 5. Each cooking station is provided with means for supporting a conventional barbecue grill 37 (Fig. 25) or a plate 17 for cooking a pizza thereon. However, in the stacked arrangement shown, the lower cooking stations B and C are best adapted for cooking pizzas, while the uppermost cooking station A is best adapted for cooking barbecue food on a conventional barbecue grill. It will be self-evident that there may be more than, or fewer than, three cooking stations.

Each cooking station has its own independent source of heat, as explained for the previous embodiments. As before, while the presently illustrated apparatus is adapted for burning solid fuel such as charcoal, alternative embodiments may have other sources of heat: for example individually controllable electric heating elements or individual gas burners, each provided with their own gas tap and fueled from a single gas canister (which may be a separate free-standing gas canister coupled to the barbecue by a gas hose).

Each cooking station is provided with a firebox 6, formed at its rear half by a portion of back panel 4 and closed at its front half by a front door assembly 7, within which firebox a

removable tray 8 for solid fuel, and any ash and cinders, is located, the tray 8 being supported in the housing 2 on a platform 10 fixed to the back panel 4.

In this embodiment, the firebox front door assembly 7 has a removable handle (not shown) that has prongs insertable through openings 59. With this arrangement, there is less likelihood of the handle getting too hot to hold than in the previously described embodiments with a fixed handle.

As can be seen from Fig. 24, the lower cooking stations B and C have notches 19 formed in the edges 20 of back panel 4 for locating projections 18 on the pizza plates 17. When supporting a conventional wire barbecue grill in place of a pizza plate, wire projections 43 may be similarly supported in notches 19.

Grill 37 is a conventional wire form barbecue grill with parallel crosswires 38 mounted to a ringwire 39, with one or more supporting crosswires 40 (here just one) extending at right angles beneath the main crosswires 38 that support food for cooking in use. As shown in Fig. 25, at the uppermost cooking station A, the grill 37 is supported by a rim structure 42 formed on top band 5. The rim structure comprises a ledge 41 and an upstanding circumextending wall 60. The grill is located by extensions 43 of crosswire 40 locating in diametrically opposed cutaway portions 44 of ledge 41, by a projection 45 formed by two crosswires 38 extending into a slot 46 also formed in the ledge 41, and by a wire handle 61 positioned diametrically opposite projection 45, and located in a cut-out portion 47 of rim structure 42. The conventional barbecue grill of the uppermost cooking station A is suitably provided with a domed lid 48, provided with an adjustable vent 49 and a thermometer 62. The dome allows the grill to be used for smoking, or to keep cooked food warm, and rests in use on ledge 41 of rim structure 42 of top band 5. The upstanding wall 60 prevents the lid from simply slipping off the ledge 41.

Wall 60 is provided with grooves 63, here eight such grooves, for supporting opposite end portions of the skewers of respective kebabs. Preferably the grooves are sufficiently wide to allow several skewers to be supported parallel to each other across the barbecue. If

the grill 37 is removed before the skewers are located in the grooves, food mounted on the skewers will be suspended above the source of heat without being in contact with a barbecue grill as in conventional cooking of kebabs on a barbecue grill, and so cannot stick to the grill and become burned thereon. A further advantage of having the skewers supported in grooves in the wall 60, rather than (say) being placed across the grill supported on the lip of the wall, is that the lid can be closed over the kebabs without risking it slipping off and without leaving too much of a gap around the periphery of the lid.

Although the embodiment of barbecue shown in Figs. 24 and 25 is of unitary form with three cooking stations, the skewer grooves feature illustrated therein may equally well be applied to a stacked barbecue of modular form. In that case, each cooking station may be provided with a similar rim structure 42. It will be appreciated that when the stations are stacked, the next higher modular station will sit upon the ledge 41 of the next lower modular station in the stack. The upstanding wall 60 serves to prevent the higher station slipping off the lower station. Each upstanding wall may be provided with similar grooves 63, so that when that station is the uppermost station of a stack or is used in isolation, it may support skewers of kebabs without need for a barbecue grill.

Claims

1. An outdoor barbecue, comprising a plurality of cooking stations located vertically one above the other in a stacked arrangement; each cooking station being provided with an independent source of heat therebeneath; and each said cooking station being provided with means for locating one of a conventional barbecue grill and a removable plate at a predetermined position above the respective source of heat for that station whereby to allow cooking of at least one of grilled barbecue food on said grill an individual pizza on a plate at said station.

2. An outdoor barbecue according to Claim 1, wherein the independent sources of heat comprise individual electrical heating elements or individual gas burners, optionally with lava rocks.

3. An outdoor barbecue according to Claim 1, wherein each said source of heat comprises a firebox with a surface for burning solid fuel, preferably charcoal or wood, thereon, and collecting ash and cinders.

4. An outdoor barbecue according to Claim 3, wherein each said firebox has an openable front for access thereto, and a removable tray for solid fuel and ash and cinders.

5. An outdoor barbecue according to Claim 1, wherein the locating means allow a said plate and a said grill to be located interchangeably at a said cooking station.

6. An outdoor barbecue according to Claim 5, wherein the locating means allow a said plate or a said grill to be positioned at one of a number of selected heights above the respective source of heat.

7. An outdoor barbecue according to Claim 1, and provided in a unitary form with a predetermined number of cooking stations in a single structure, the said single structure being

provided with at least two wheels enabling the structure as a whole to be wheeled to a selected position for use.

8. An outdoor barbecue according to Claim 1, wherein the uppermost cooking station is provided with a rim structure comprising a generally flat ledge on which a domed lid may be supported and a circumextending upstanding wall preventing the lid from slipping off the ledge in use.

9. An outdoor barbecue according to Claim 8, wherein the upstanding wall is provided with a plurality of grooves therein adapted to support opposite end portions of the skewers of kebabs.

10. An outdoor barbecue according to Claim 1, and provided in a modular form in which each modulus effectively provides a single cooking station, enabling a user to create a stack of cooking stations located one above another with a selected number of cooking stations in the stack.

11. An outdoor barbecue according to Claim 10, wherein each cooking station is provided with a rim structure comprising a generally flat ledge, on which a domed lid may be supported when the said cooking station is employed in isolation or when the said cooking station is employed as the uppermost cooking station of a stack, and a circumextending upstanding wall preventing the lid from slipping off the ledge in use.

12. An outdoor barbecue according to Claim 11, wherein the upstanding wall is provided with a plurality of grooves therein adapted to support opposite end portions of the skewers of kebabs.

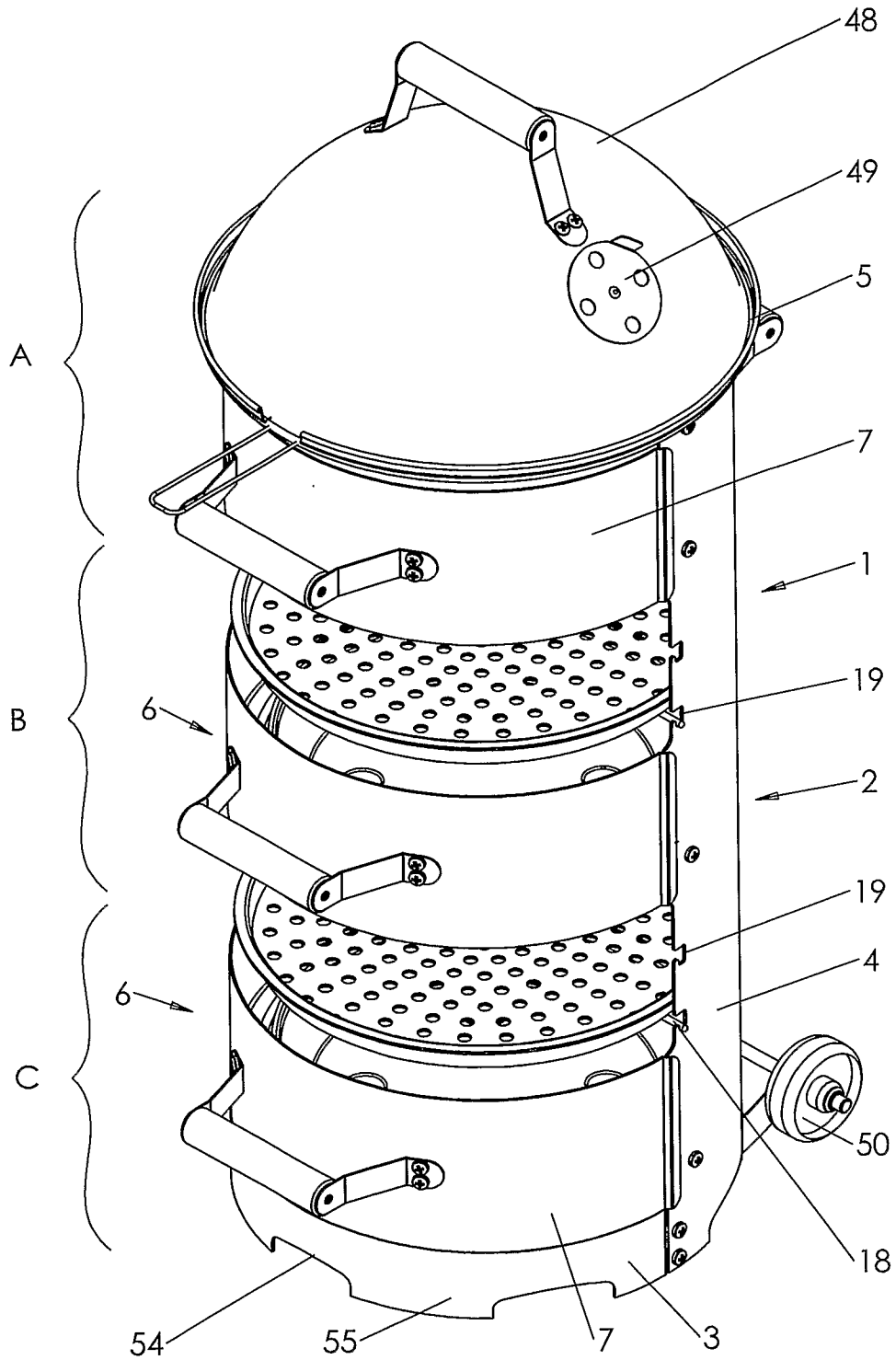

Fig 1

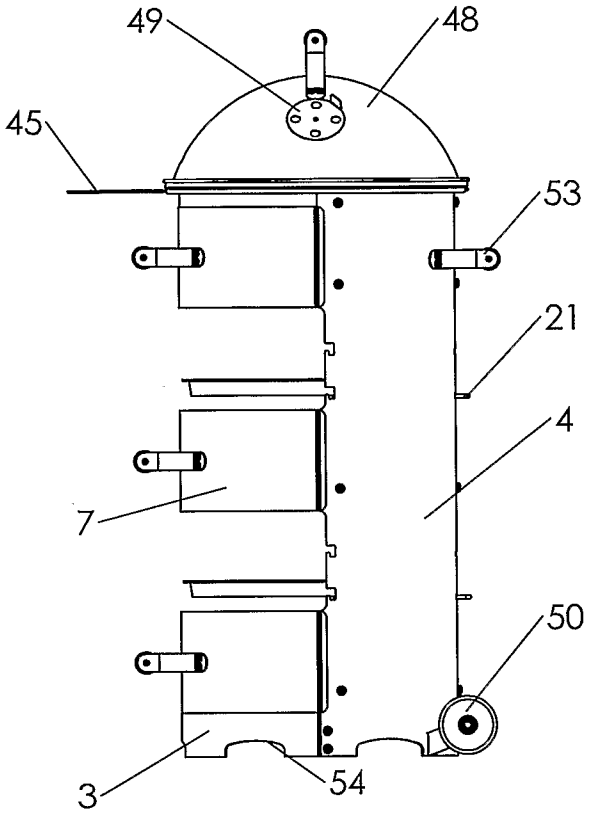

Fig 2

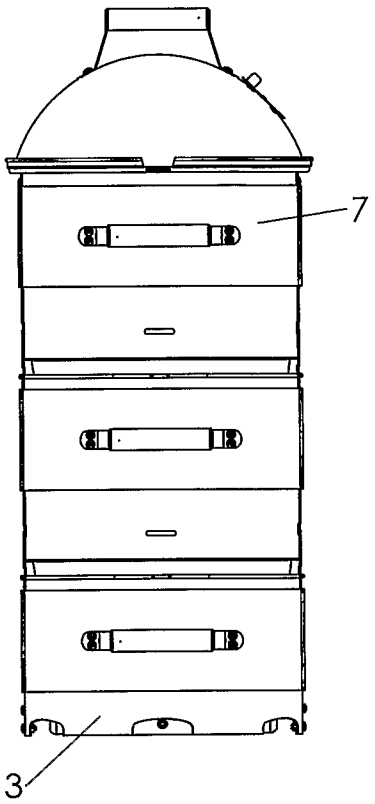

Fig 3

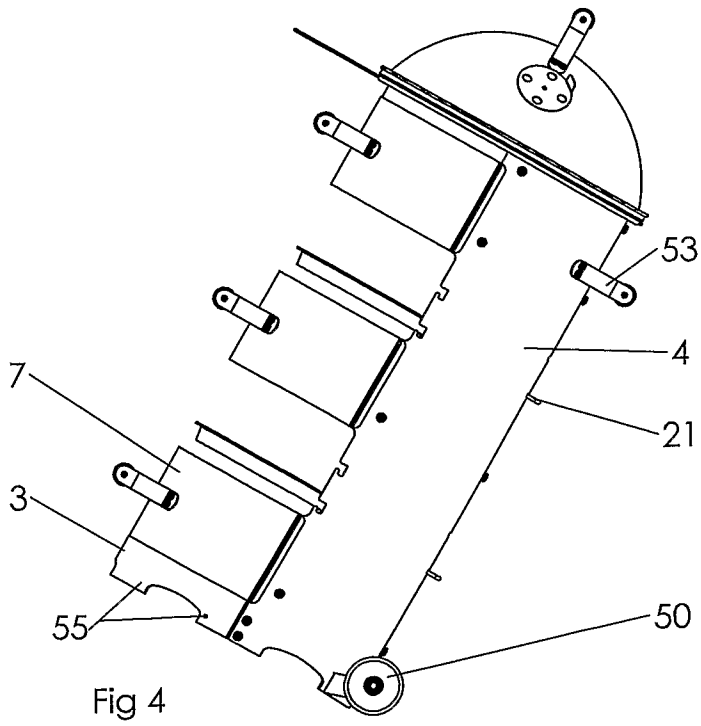

Fig 4

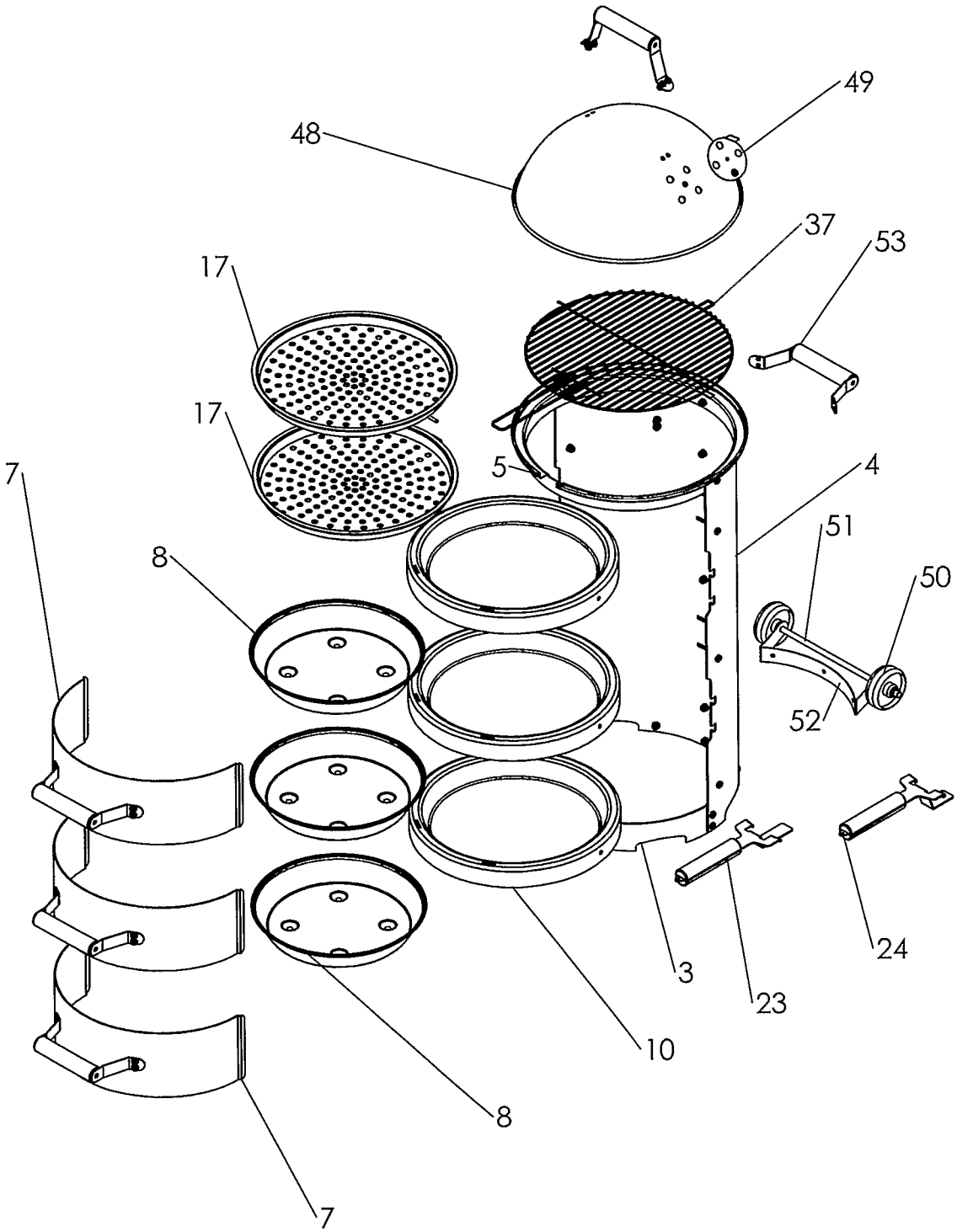

Fig 5

Fig 7

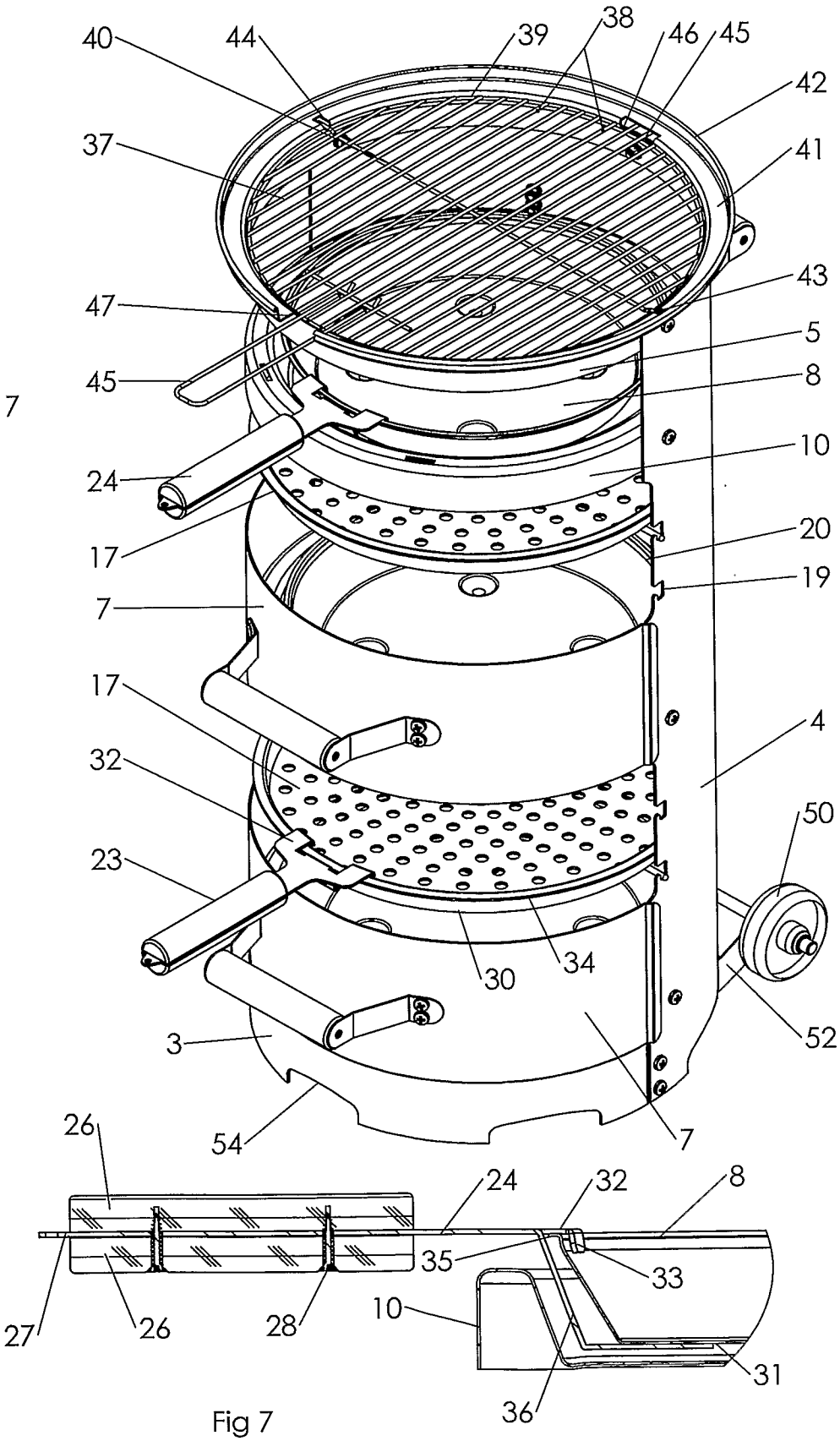
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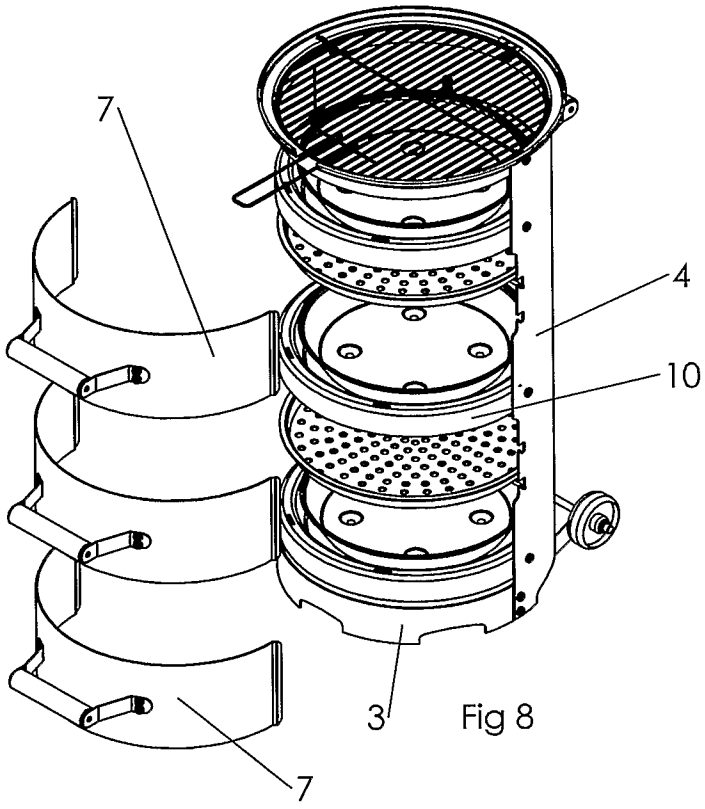
Fig 7



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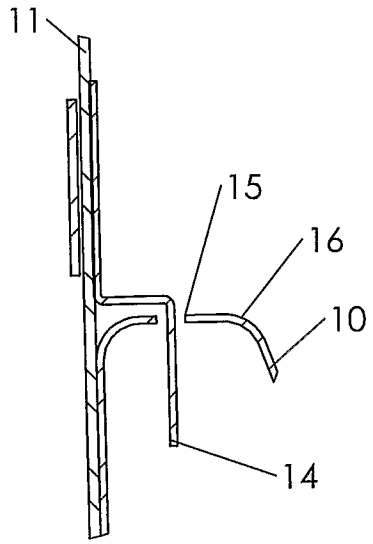


Fig 9

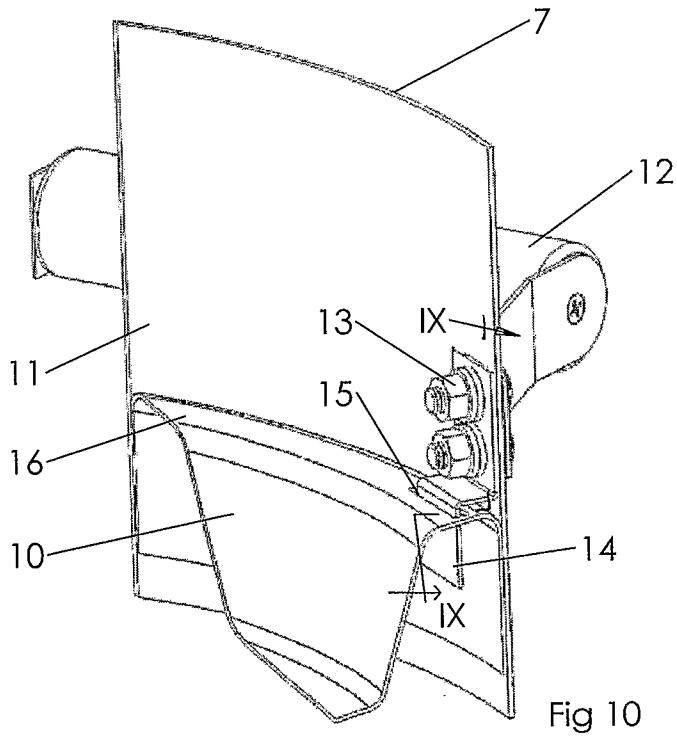
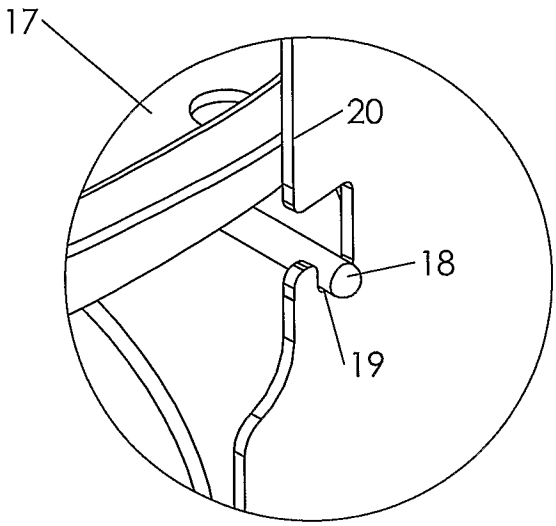


Fig 10



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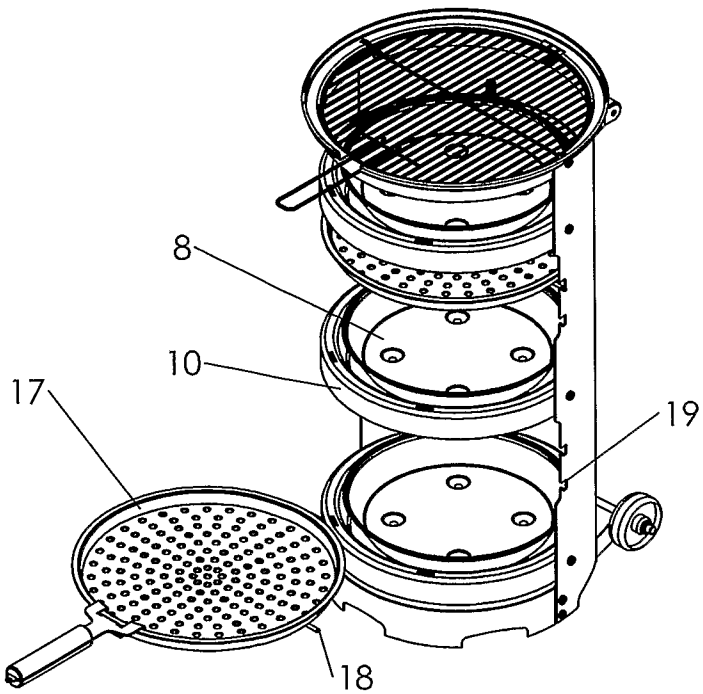

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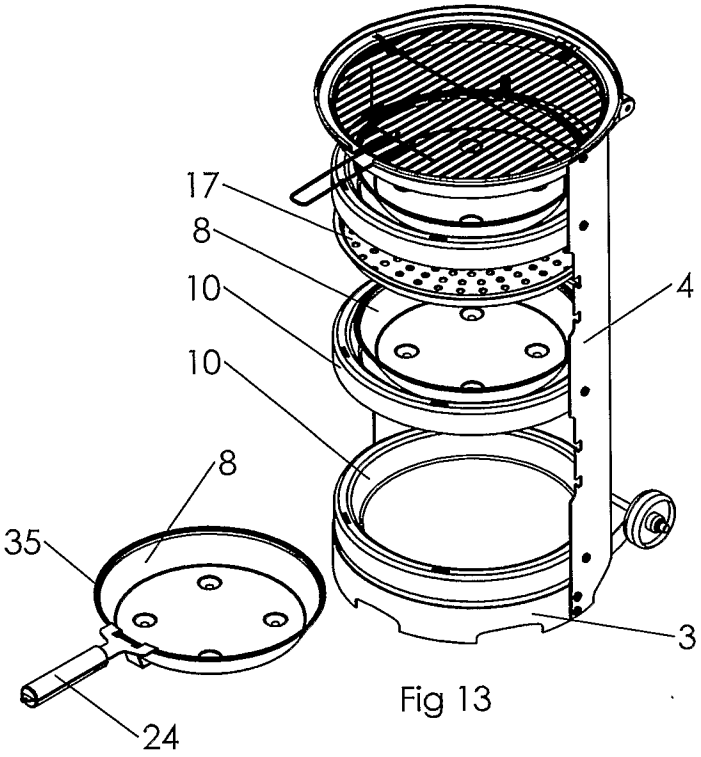


Fig 13

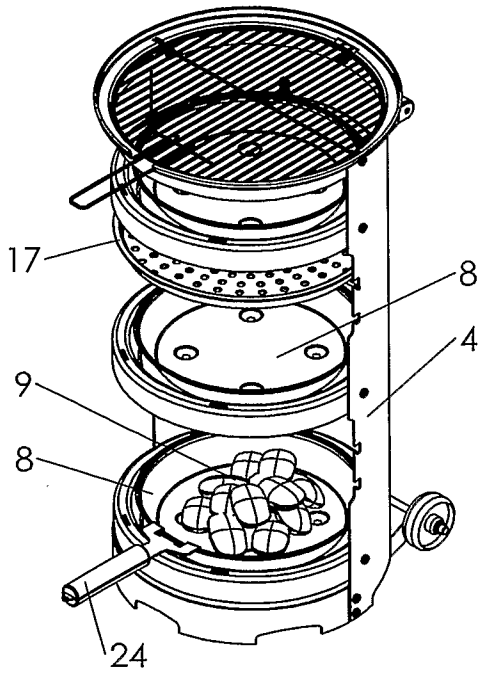


Fig 14

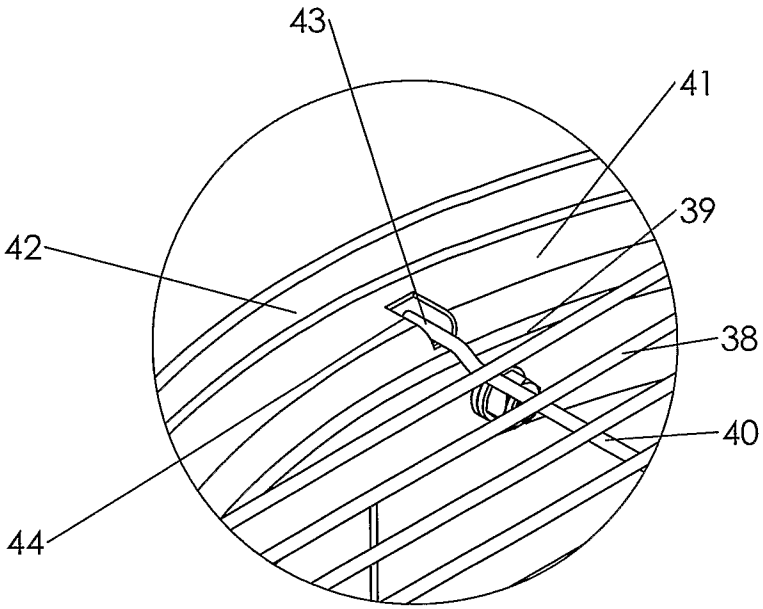


Fig 15

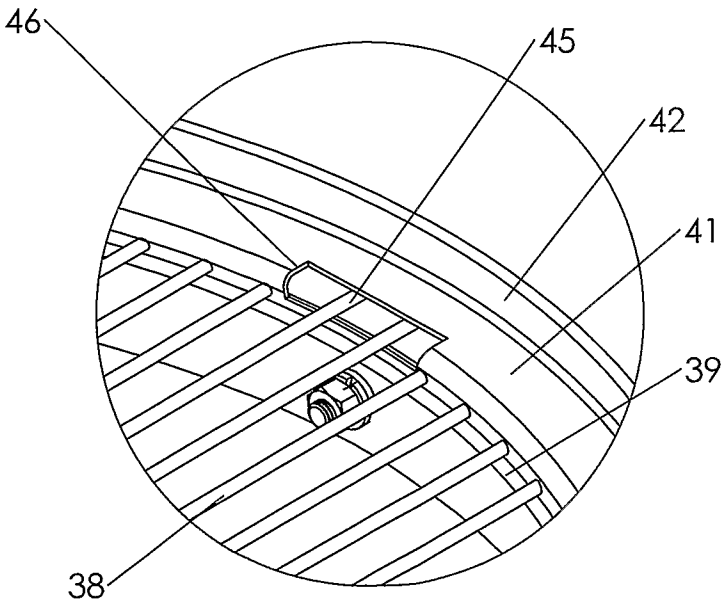


Fig 16

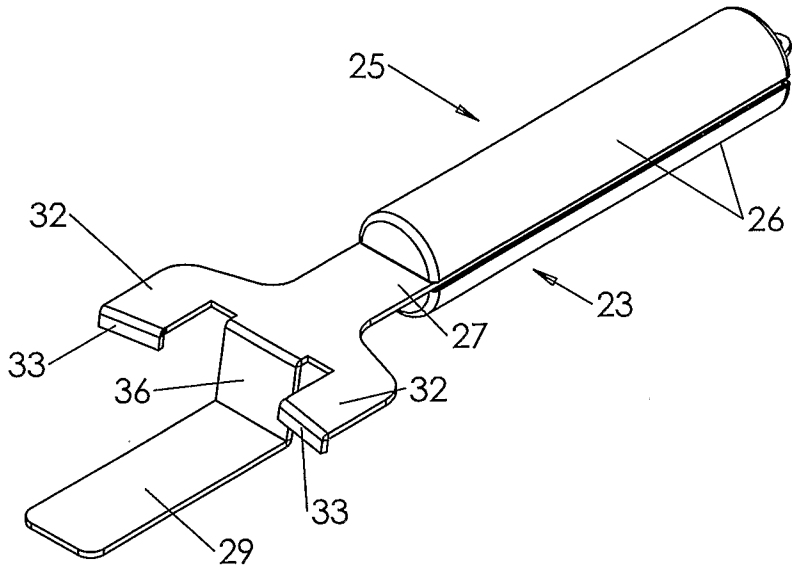
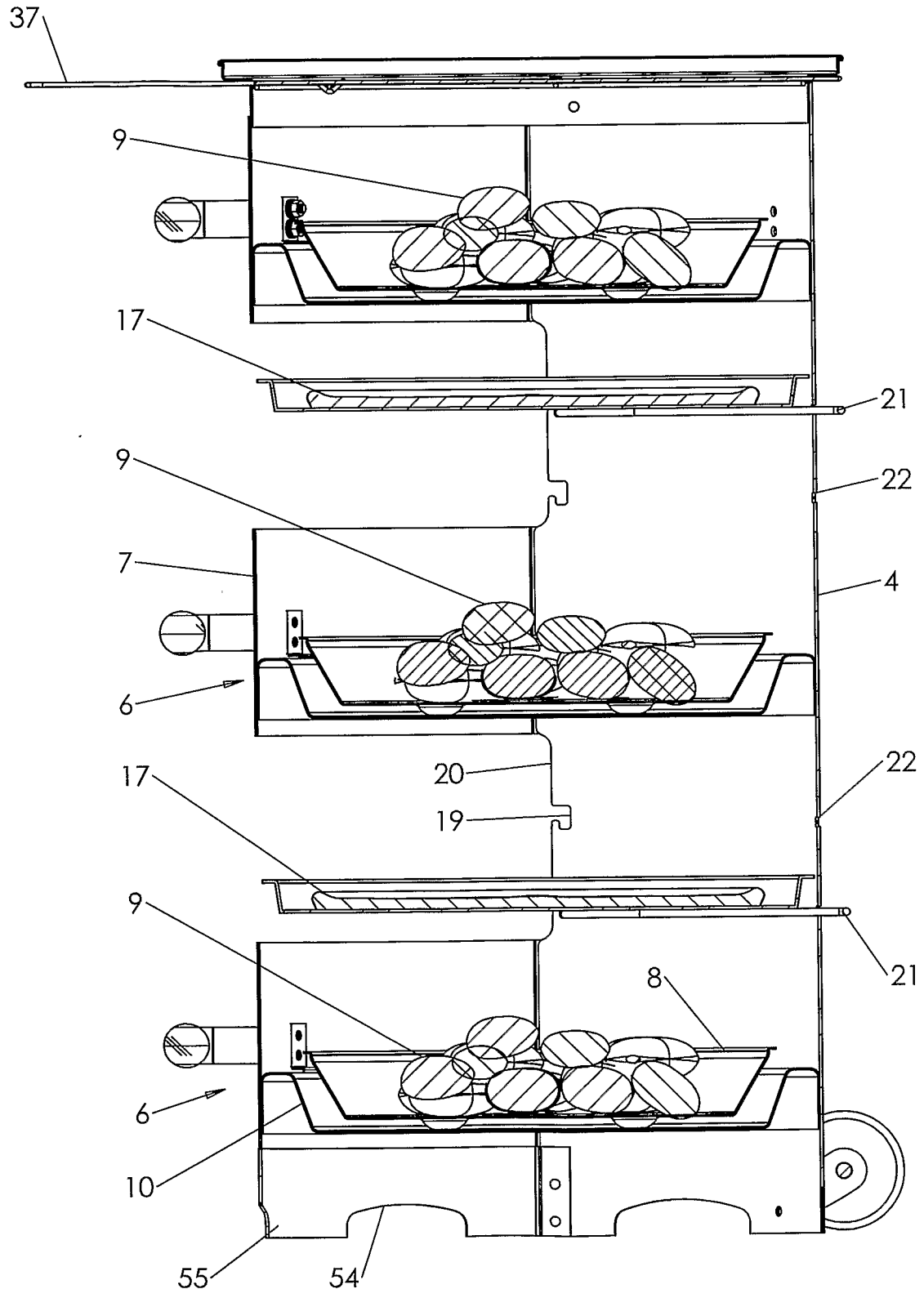


Fig 17



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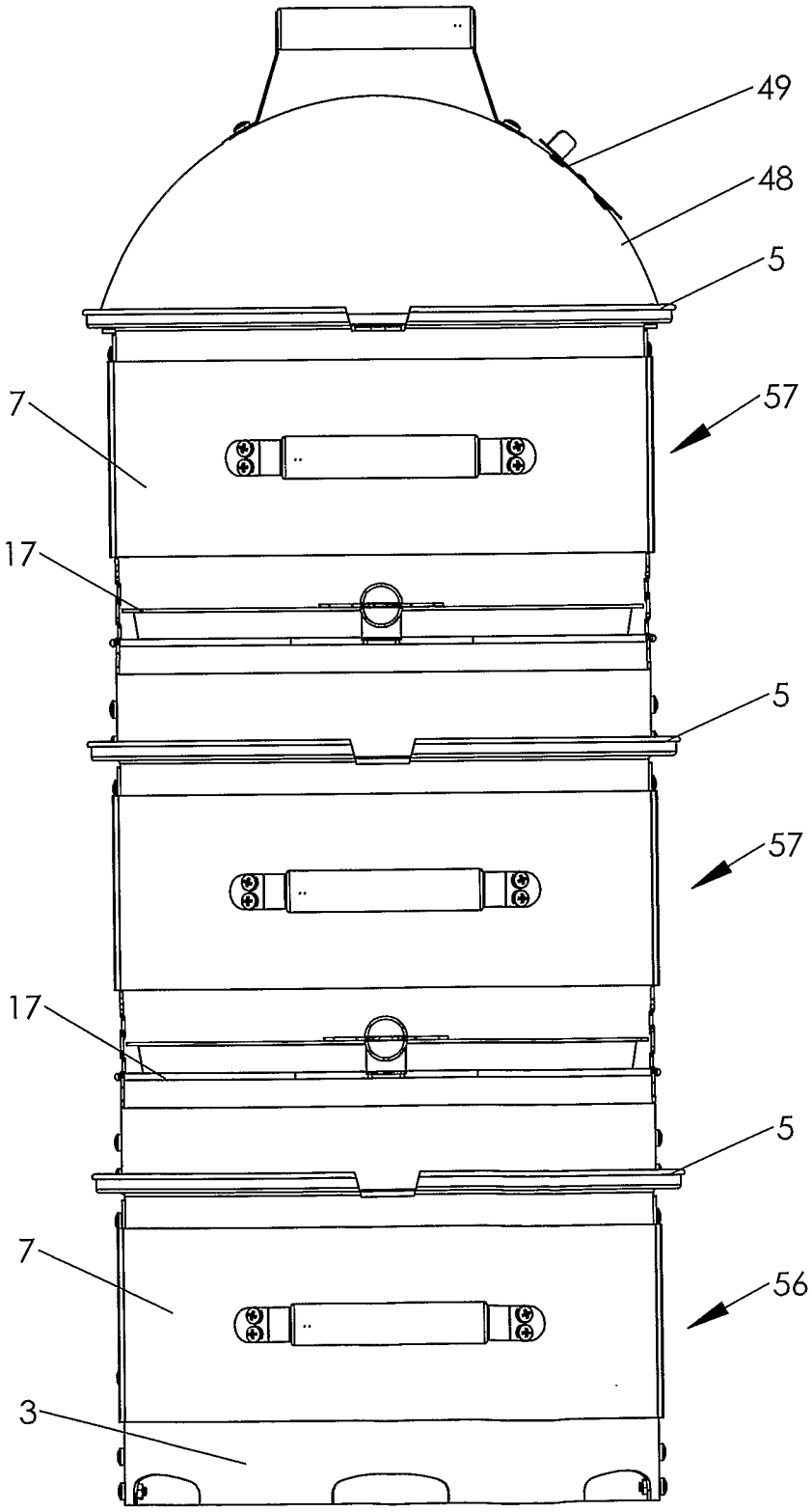

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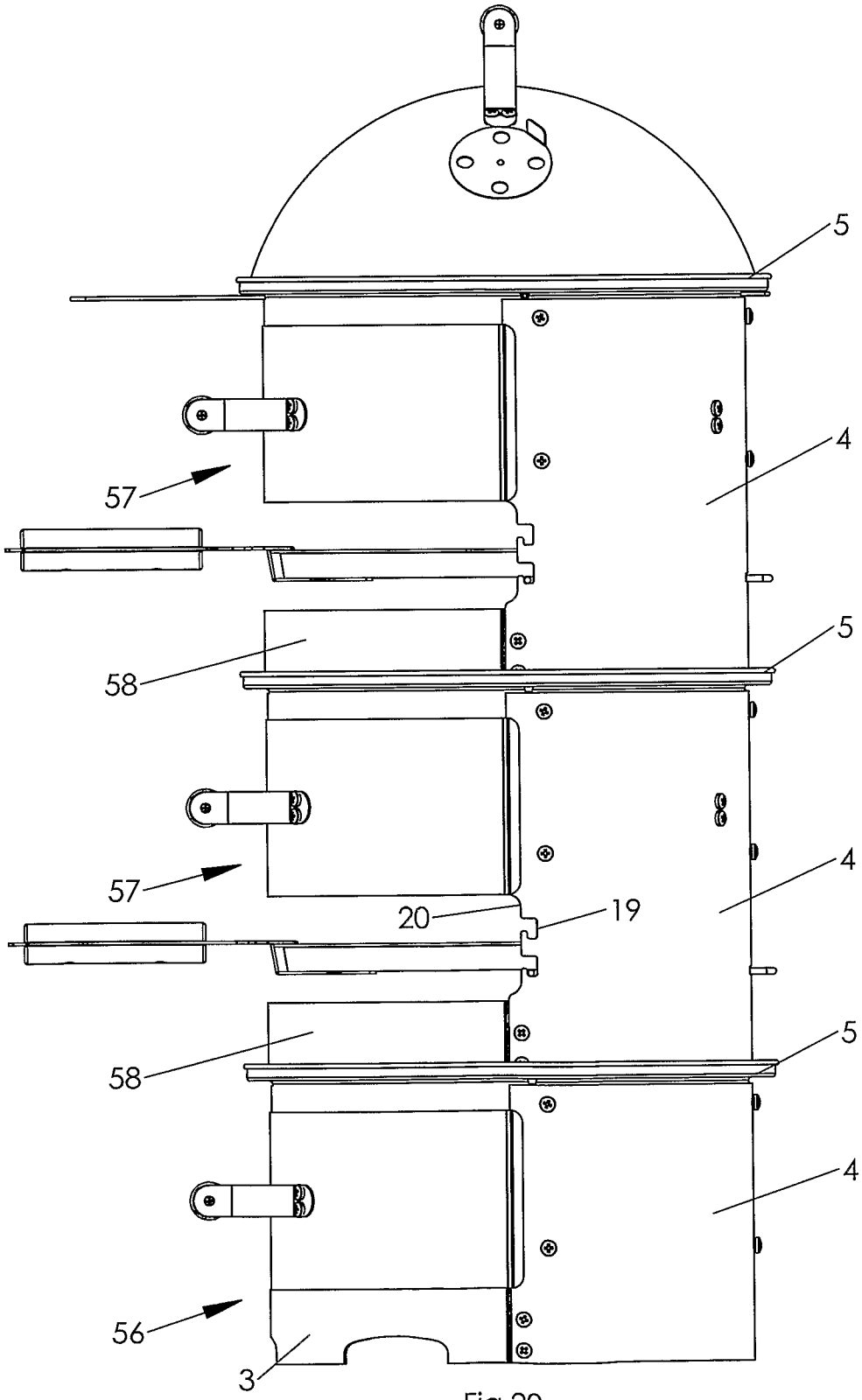

Fig 20

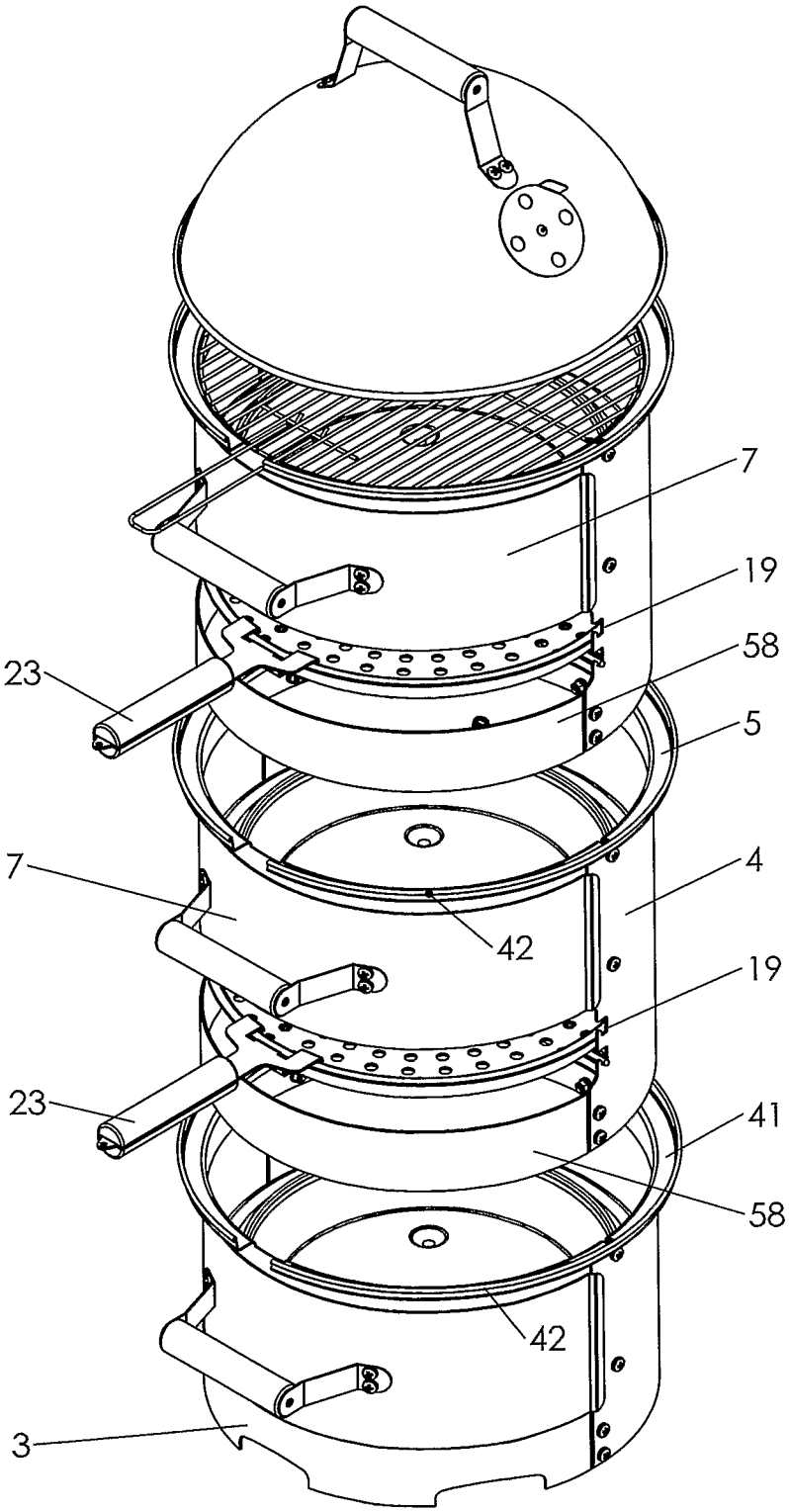

Fig 21

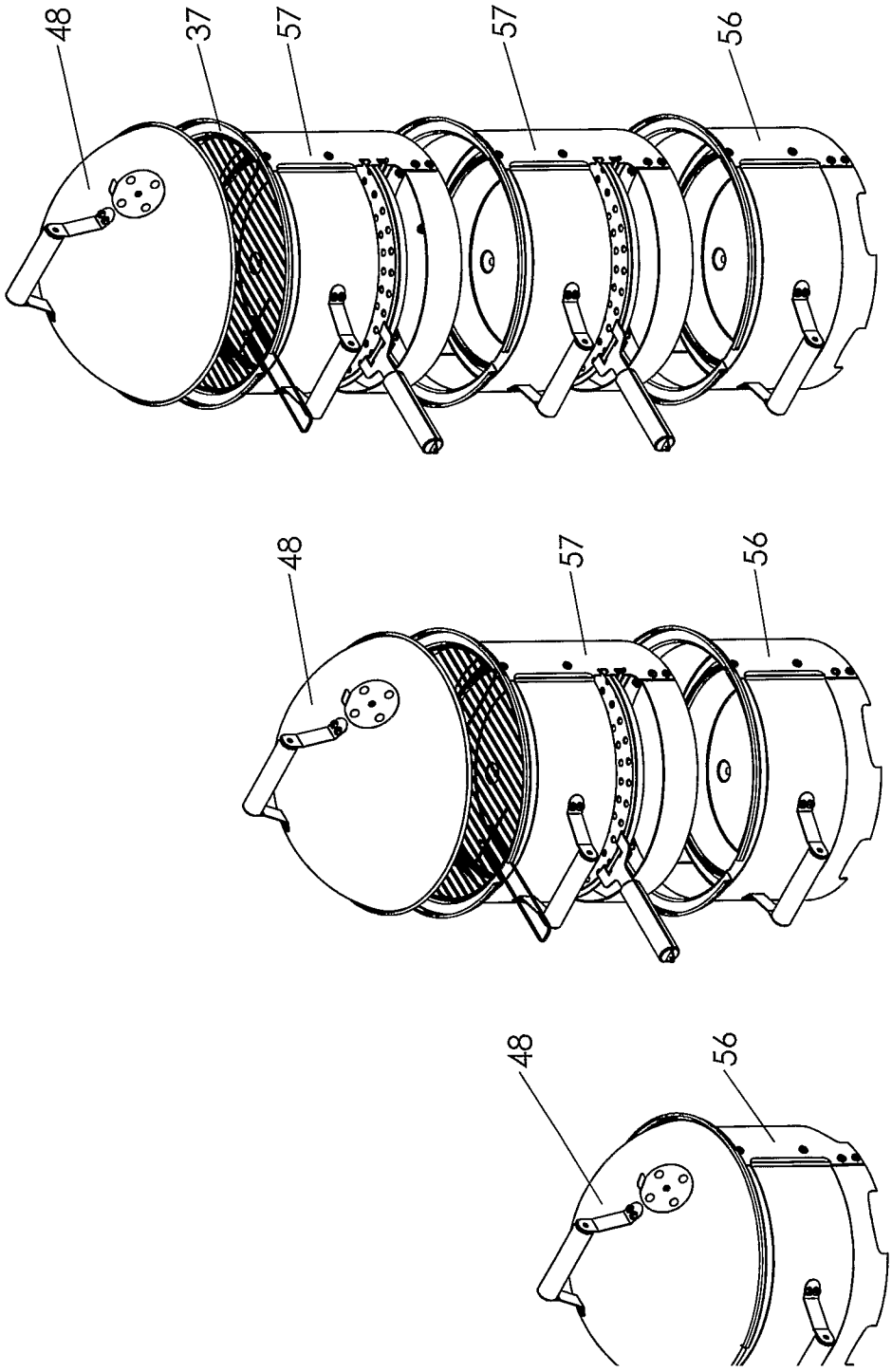

Fig 22

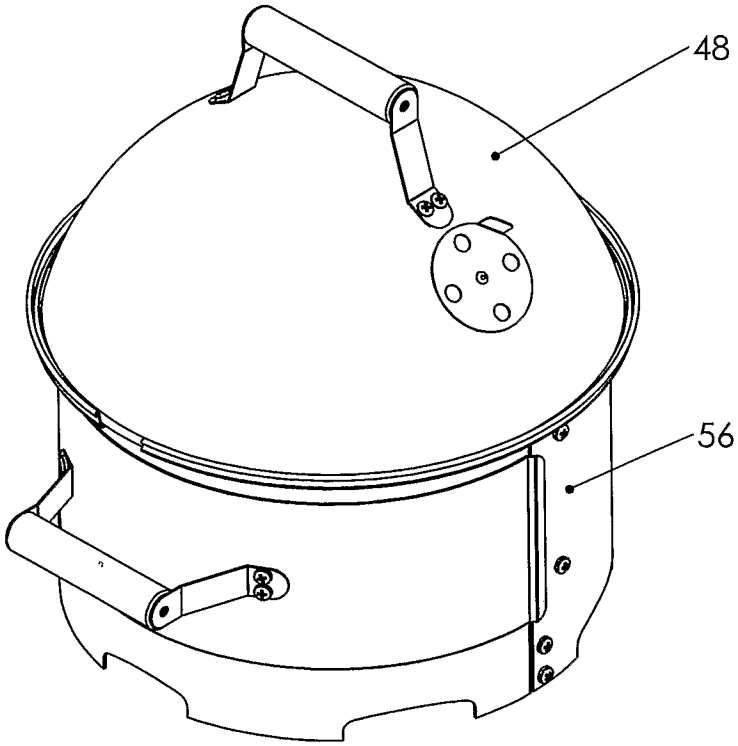

Fig 23

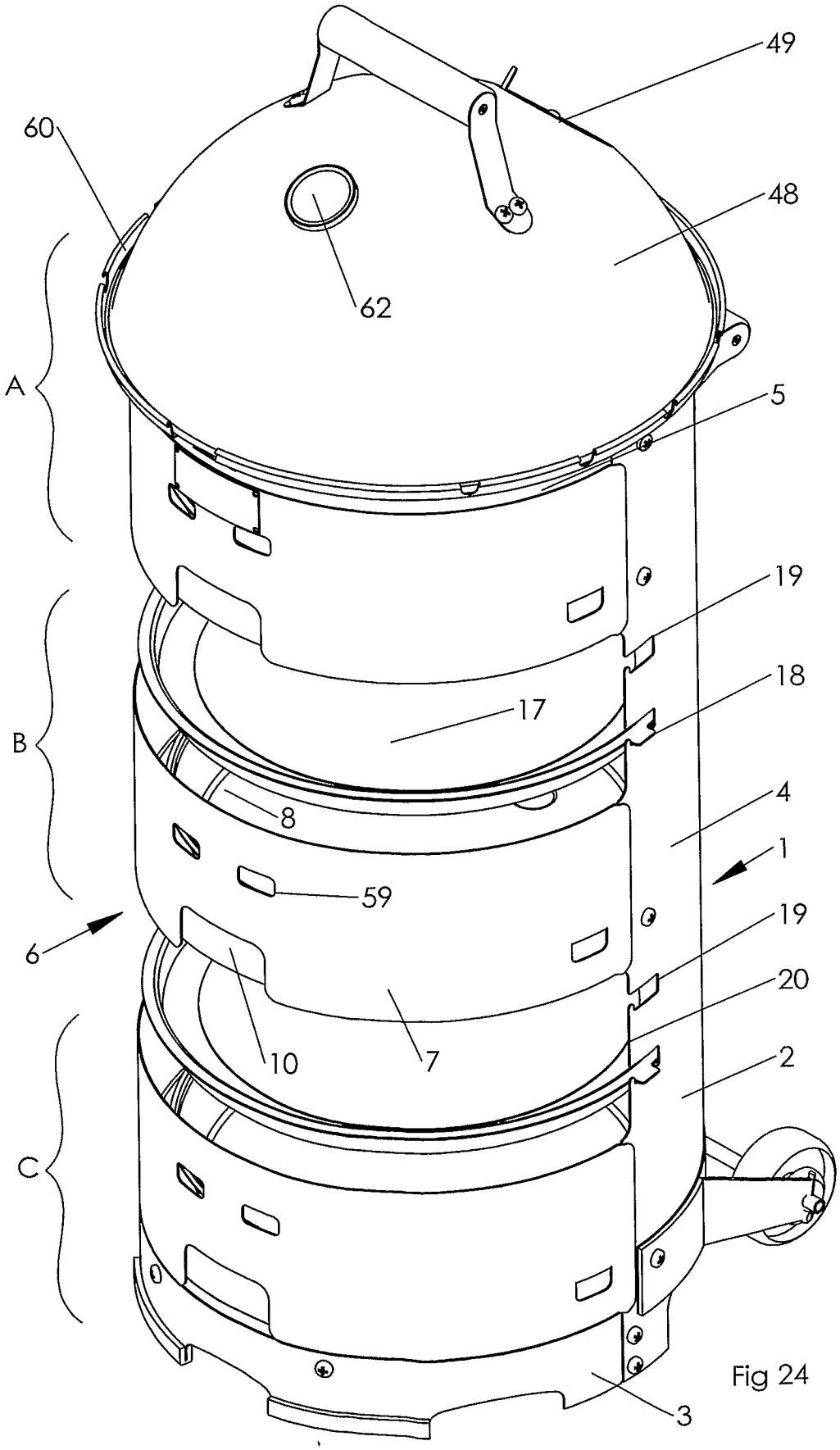

Fig 24

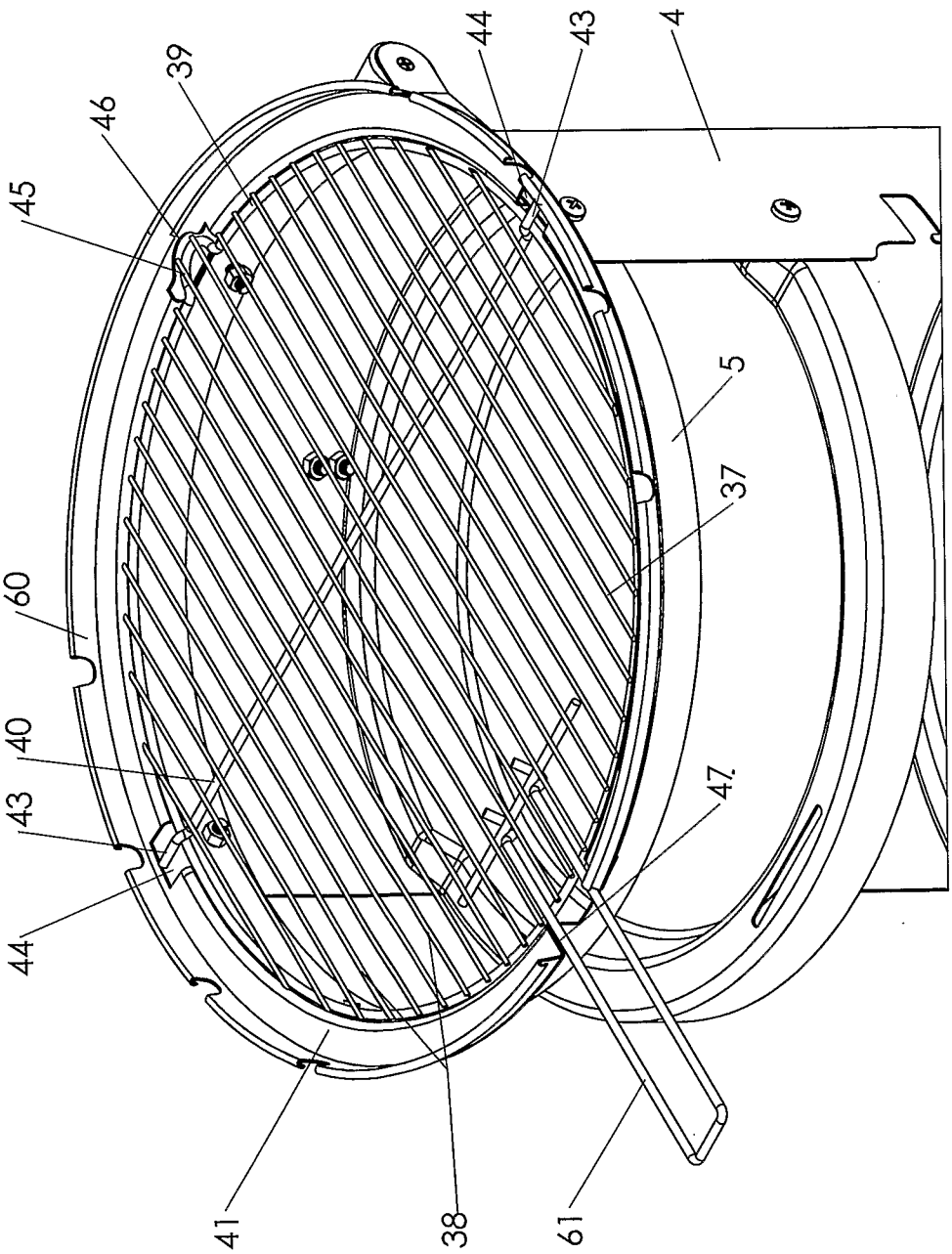

Fig 25

INTERNATIONAL SEARCH REPORT

International application No
PCT/GB2009/002786

A. CLASSIFICATION OF SUBJECT MATTER
INV. A47J37/07 A47J37/06
ADD.

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
A47J

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)
EPO-Internal, WPI Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X Y	US 5 535 664 A (ROKOWSKI PAUL [US]) 16 July 1996 (1996-07-16) column 4, line 47 - column 6, line 6	1,2,8, 10,11 9,12
Y A	US 4 300 444 A (MUSE EDWARD T) 17 November 1981 (1981-11-17) figure 7	9,12 1
X	US 2008/121222 A1 (BRANSON MICHAEL [US] ET AL) 29 May 2008 (2008-05-29) paragraph [0037] - paragraph [0038]; figure 2	1,3,8,10
X	US 5 213 027 A (TSOTSOS THOMAS A [US] ET AL) 25 May 1993 (1993-05-25) column 2, line 45 - column 3, line 8; figures 1, 3	1,2,7,8

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[X] Further documents are listed in the continuation of Box C. [X] See patent family annex.

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Date of the actual completion of the international search	Date of mailing of the international search report
31 March 2010	13/04/2010

Name and mailing address of the ISA/	Authorized officer
European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Fax: (+31-70) 340-3016	Hinrichs, Wiebke

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INTERNATIONAL SEARCH REPORT

International application No
PCT/GB2009/002786

C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	DE 23 32 805 A1 (KRISTEN ALFRED DIPL ING; GERBER HELMUT) 23 January 1975 (1975-01-23)	1,2
Y	page 2, paragraph 4; figure 2	5,6
Y	DE 20 2006 002091 U1 (WEERT IRENEUS MARIA VAN [DE]) 1 June 2006 (2006-06-01) the whole document	5,6
X	FR 2 579 869 A1 (SARFATI RICHARD [FR]) 10 October 1986 (1986-10-10) page 2, line 7 - page 3, line 21; figure 1	1,2
A	US 6 543 435 B1 (REGEN PAUL LEWIS [US] ET AL) 8 April 2003 (2003-04-08) figures 1, 3	1,7
A	DE 20 2005 018899 U1 (CHIANG WEN YUEH [TW]) 23 February 2006 (2006-02-23) paragraph [0004]; figures 1-8	1

4

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No
PCT/GB2009/002786

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 5535664 A	16-07-1996	NONE	
US 4300444 A	17-11-1981	NONE	
US 2008121222 A1	29-05-2008	NONE	
US 5213027 A	25-05-1993	NONE	
DE 2332805 A1	23-01-1975	NONE	
DE 202006002091 U1	01-06-2006	NONE	
FR 2579869 A1	10-10-1986	NONE	
US 6543435 B1	08-04-2003	AU 2003243768 A1 WO 2004003436 A1 US 2004000303 A1	19-01-2004 08-01-2004 01-01-2004
DE 202005018899 U1	23-02-2006	NONE	