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(71) Applicant: **BSH Hausgeräte GmbH**
81739 München (DE)

(72) Inventors:
- **Atabay, Emrah**
  59500 TEKIRDAG (TR)
- **Gündogdu, Gürkan**
  59510 TEKIRDAG (TR)
- **Yavuz, Serhat**
  59850 TEKIRDAG (TR)

(54) **A COOKING DEVICE WITH AN ASSEMBLY ELEMENT CONNECTED TO A GAS DISTRIBUTION PIPE**

(57) The present invention relates to a cooking device (1) having a body (10), a front panel (11) provided on said body (10), a button (12) provided on one side of said front panel (11) and which is at least partially retractable into the front panel (11), a housing (13) provided on the other side of the front panel (11) and whereto the button (12) can enter, and a gas tap (32) connected to the button (12). As an improvement, the present invention comprises an assembly element (50) connected to a collector pipe (31) connected to the gas tap (32) from one end, and connected to a carrier vertical section (20) from the other end, in order to fix the position of the gas tap (32).

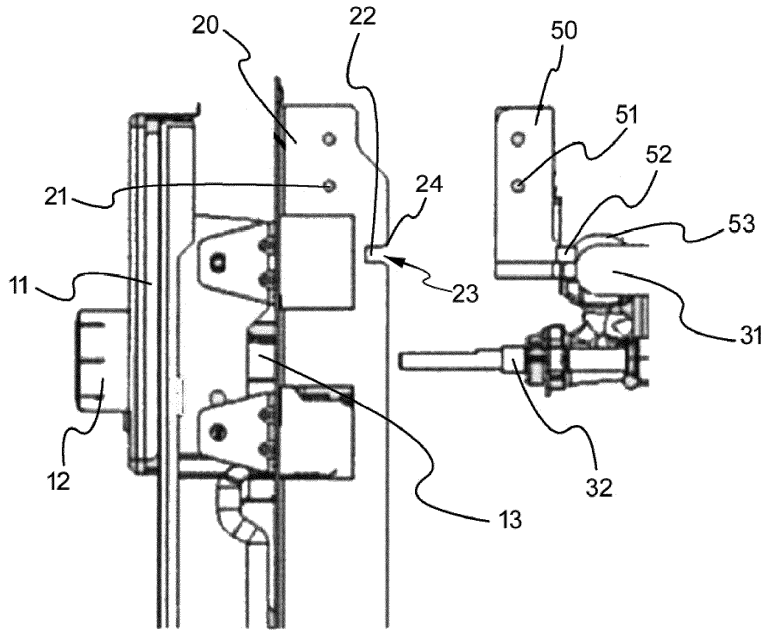

Figure 3

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Description

[0001] The present invention relates to cooking devices having buttons which can be pushed into the front panel and having collector pipes for gas distribution to the burners.

[0002] Collector group comprising collector pipes, gas taps and burners is in general connected by using a carrier element extending towards the front panel of the cooking device from behind. In cooking devices having buttons which can be pushed into the front panel, assembly becomes difficult due to this connection type.

[0003] In the application US2005257784, the gas manifold assembly is adapted to a cooking appliance for supplying the burners thereof, and is equipped with various taps of the rotary type, installed on an elongated tubular-shaped manifold conduit, which is disposed parallel to the front wall of the appliance and supported on it. The taps have a respective installation seat with a built-in gas intake connected to the elongated conduit, and mounting is carried out by means of a one-piece mounting device, which in turn has an integral means for supporting and fastening the manifold assembly to the front wall, for which purpose the aligned tap drive shafts stand proud of the front wall and the tap outlet conduits face and adjoin their respective burner.

[0004] In the application GB571807, a gas cooker hotplate is formed as a separate unit bolted to the top of the oven and comprises a sheet metal body member forming the bottom and sides of the unit, a gas manifold fixed by means of end flanges to the front of the body member and a detachable U-shaped shield covering the manifold and constituting the front panel of the unit. The front of the shield is slotted to accommodate the stems of the gas taps while the rear wall of the shield, which serves to protect the taps from excessive heat, is similarly slotted to permit passage of the burner tubes. The rear wall of the unit is formed by the lower part of the back plate which is extended upwardly to carry a plate rack. The burners are supported on a bent bar secured by screws to the sides while the grid plate covering the top of the stove rests on the flanges which are slotted to receive locating pins on the grid plate.

[0005] The object of the present invention is to provide a cooking device, where the assembly of the collector group comprising collector pipes, gas taps and burners, is facilitated.

[0006] The present invention is a cooking device having a body, a front panel provided on said body, a button provided on one side of said front panel and which is at least partially retractable into the front panel, a housing provided on the other side of the front panel and whereto the button can enter, and a gas tap connected to the button. Accordingly, the subject matter cooking device comprises an assembly element connected to a collector pipe connected to the gas tap from one end, and connected to a carrier vertical section from the other end, in order to fix the position of the gas tap. Thus, the collector group, comprising the gas tap and the collector pipe, can be fixed in a more rigid manner without the need for connection to the front panel.

[0007] In a preferred embodiment of the present invention, one each connection opening and one each assembly opening are provided mutually on the carrier vertical section and on the assembly element. Thus, by using a screw-like connection element, the collector pipe can be connected to the carrier vertical section.

[0008] In a preferred embodiment of the present invention, at least two connection openings and at least two assembly openings are provided. Thus, the rotation of the assembly element is prevented.

[0009] In a preferred embodiment of the present invention, a fixation housing and a fixation protrusion are provided mutually on the carrier vertical section and on the assembly element. Thus, the assembly of the collector pipe and of the collector group whereon said collector pipe is provided is facilitated. In more details, when the fixation protrusion is placed to the fixation housing, the connection opening and the assembly opening coincide. Since the movement of the fixation element is restricted when the fixation protrusion is inserted into the fixation housing, the assembly is made by means of a connection element, which is similar to a screw, through the assembly opening and through the connection opening, and thus the assembly is facilitated.

[0010] In a preferred embodiment of the present invention, a formed corner is provided on at least one side of a housing inlet defined at the open side of the fixation housing. Thus, the insertion of the fixation protrusion into the fixation housing is facilitated.

[0011] In a preferred embodiment of the present invention, the assembly element has a holding tip which at least partially encircles the collector pipe. Thus, the connection of the assembly element to the collector pipe is facilitated.

Figure 1 is a representative view of the subject matter cooking device.

Figure 2 and 3 are the representative exploded views of the subject matter cooking device.

[0012] In this detailed description, the subject matter cooking device (10) is explained with references to examples without forming any restrictive effect only in order to make the subject more understandable.

[0013] With reference to Figure 1, the subject matter cooking device (1) has a body (10) and a front panel (11) provided on said body (10). There is a button (12) provided on said front panel (11). As can be seen in Figure 2, said button (12) is connected to a gas tap (32). The embodiment formed by said gas tap (32), collector pipe (31) and burners (33) is defined as a collector group (30). In more details, the gas, applied through a collector pipe (31) in the collector group (30), is transferred to the burners (33). The transfer of the gas from the collector pipe

(31) to the burners (33) is realized under the control of the gas taps (32). By means of the rotation movement of the buttons (12), the gas taps (32) turn on and off, and gas flow is permitted or prevented. The button (12), provided on the front panel (11), is pushed towards the front panel (11) when desired, and the button (12) can be retracted into the body (10). There is a housing (13) provided on the rear face of the front panel (11). When the button (12) is pushed into the body (10), it is placed into said housing (13). In other words, the housing (13) forms the required movement space for the inward outward movement of the button (12).

[0014] The collector group (30) shall be connected to the body (10) during the assembly thereof. Thus, both the collector group (30) is fixed and the gas tap (32), connected to the button (12), stays in a suitable position. There is an assembly element (50) for providing connection of the collector group (30) to the body (10). Said assembly element (50) extends between a carrier vertical section (20) of the body (10), and a collector pipe (31) provided inside the collector group (30). There is a holding tip (53) provided on the side of the assembly element (50) connected to the collector pipe (31). Said holding tip (53) at least partially encircles the collector pipe (31). In more details, the holding tip (53) is provided in a semicircle form. The holding tip (53) is brought above the collector pipe (31) and it is pressed, and the holding tip (53) is fixed onto the collector pipe (31). There is an assembly opening (51) provided on the side of the assembly element (50) facing the carrier vertical section (20). Moreover, the side of the assembly element (50) facing the carrier vertical section (20) is defined as an abutment region (54). There is a fixation protrusion (52) provided in protrusion form outwards said abutment region (54). Said fixation protrusion (52) has a square-like cross section. In alternative embodiments of the present invention, the fixation protrusion (52) can be provided in different forms.

[0015] On the other hand, there is a connection opening (21) provided on the carrier vertical section (20). Said connection opening (21) is provided mutually to the assembly opening (51) provided on the assembly element (50). Moreover, there is a fixation housing (22), provided in cut-out form, on an edge of the carrier vertical section (20). Said fixation housing (22) is embodied in a suitable manner to the form and dimensions of the fixation protrusion (52). In other words, the fixation housing (22) is provided in a size in a manner receiving the fixation protrusion (52). The fixation housing (22) has a housing inlet (23) for permitting the entry of the fixation protrusion (52). Said housing inlet (23) has a formed corner (24) provided in a manner widening the inlet of the fixation housing (22). In more details, the corners on both sides of the housing inlet (23) are chamfered, and thereby the housing inlet (23) is widened. In an alternative embodiment of the present invention, said corners are curved and the housing inlet (23) is widened.

[0016] As can be seen in Figure 3, in order to provide the connection of the collector group (30) to the body (10), first of all, the assembly element (50) is fixed onto the collector pipe (31) through the holding tip (53). Afterwards, the collector group (30) is approached to the carrier vertical section (20) such that the fixation protrusion (52) corresponds to the fixation housing (22). Afterwards, the fixation protrusion (52) is placed to the fixation housing (22). By means of the formed corner (24), the entry of the fixation protrusion (52) to the fixation housing (22) is facilitated. Meanwhile, the abutment region (54) is stopped onto the carrier vertical section (20). Moreover, when the fixation protrusion (52) is placed into the fixation housing (22), the connection opening (21) provided on the carrier vertical section (20) coincides with the assembly opening (51) provided on the assembly element (50). Finally, the collector group (30) is fixed by using a connection element which is similar to a screw and which is passed through the connection opening (21) and through the assembly opening (51).

REFERENCE NUMBERS

[0017]

1. Cooking device

10. Body
11. Front panel
12. Button
13. Housing

20. Carrier vertical section
21. Connection opening
22. Fixation housing
23. Housing inlet
24. Formed corner

30. Collector group
31. Collector pipe
32. Gas tap
33. Burner

50. Assembly element
51. Assembly opening
52. Fixation protrusion
53. Holding tip
54. Abutment region

Claims

1. A cooking device (1) having a body (10), a front panel (11) provided on said body (10), a button (12) provided on one side of said front panel (11) and which is at least partially retractable into the front panel (11), a housing (13) provided on the other side of the front panel (11) and whereto the button (12) can enter, and a gas tap (32) connected to the button (12),

characterized by comprising an assembly element (50) connected to a collector pipe (31) connected to the gas tap (32) from one end, and connected to a carrier vertical section (20) from the other end, in order to fix the position of the gas tap (32).

2. A cooking device (1) according to Claim 1, wherein one each connection opening (21) and assembly opening (51) are correspondingly provided on the carrier vertical section (20) and on the assembly element (50) respectively.

3. A cooking device (1) according to Claim 2, wherein at least two connection openings (21) and at least two assembly openings (51) are provided.

4. A cooking device (1) according to any one of the preceding claims, wherein a fixation housing (22) and a fixation protrusion (52) are correspondingly provided on the carrier vertical section (20) and on the assembly element (50) respectively.

5. A cooking device (1) according to Claim 4, wherein a formed corner (24) is provided on at least one side of a housing inlet (23) defined at the open side of the fixation housing (22).

6. A cooking device (1) according to any one of the preceding claims, wherein the assembly element (50) has a holding tip (53) which at least partially encircles the collector pipe (31).

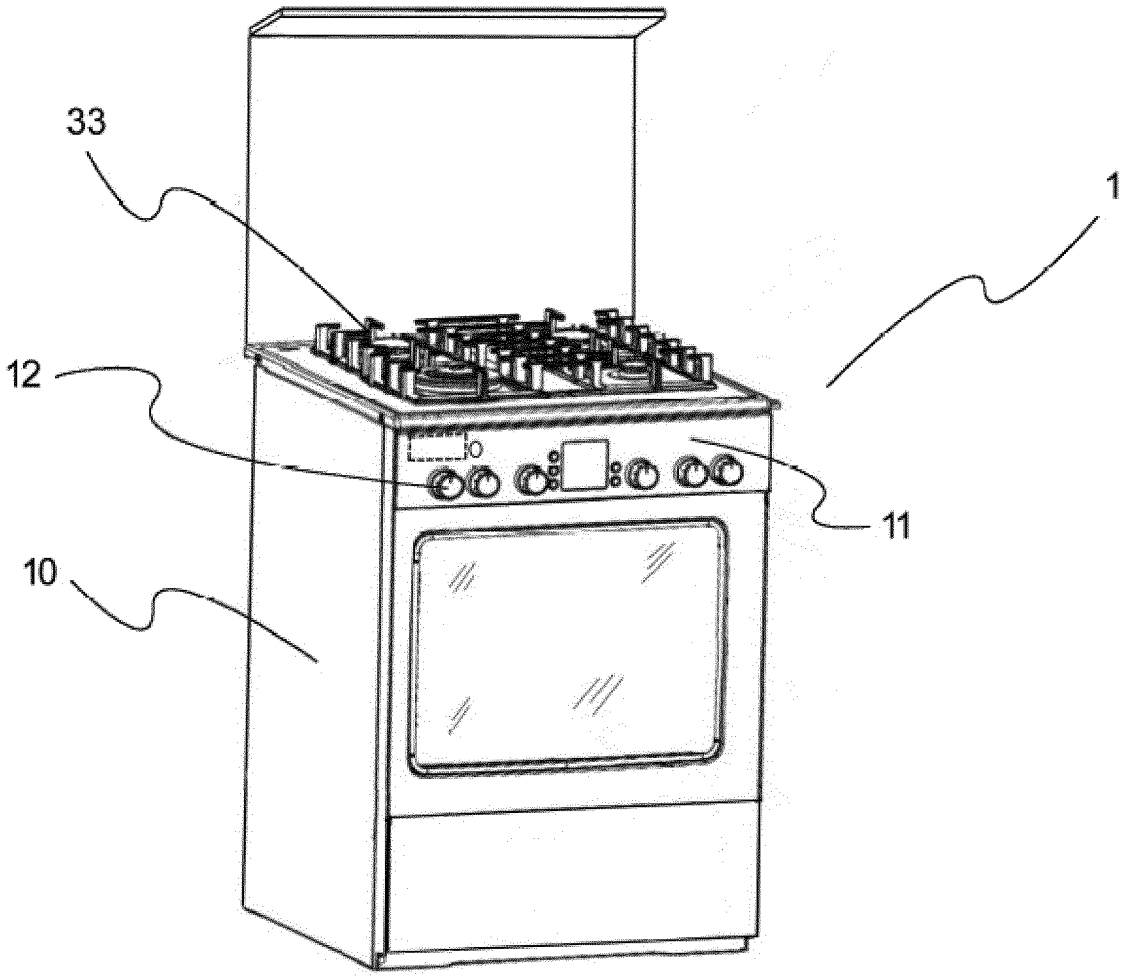

Figure 1

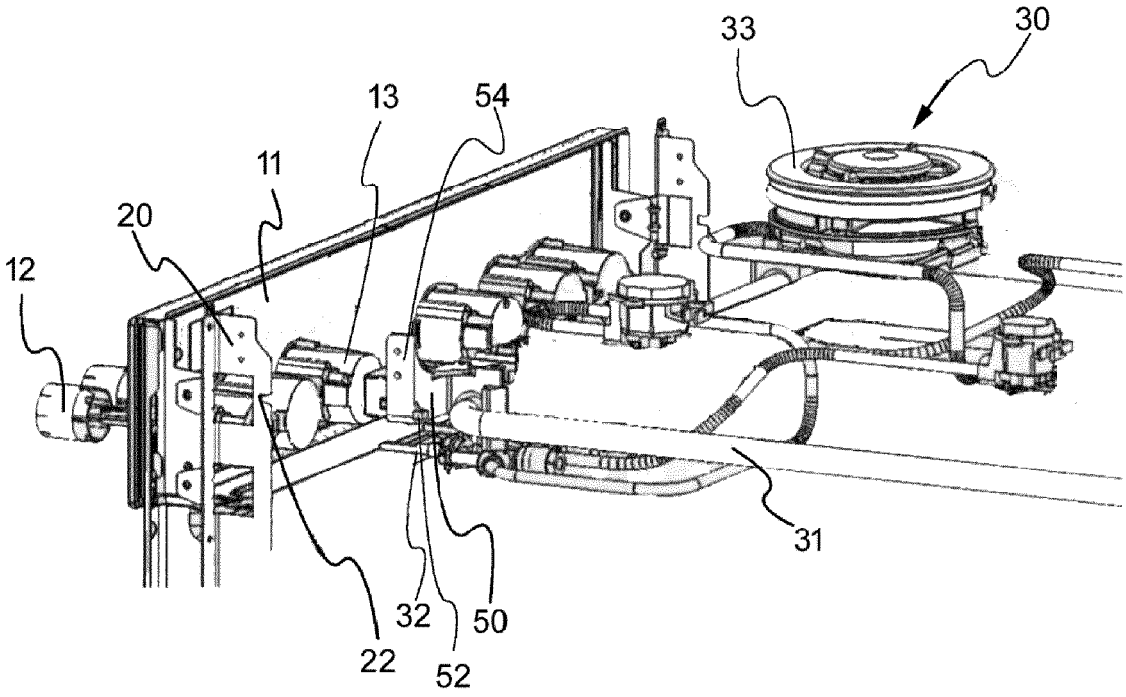

Figure 2

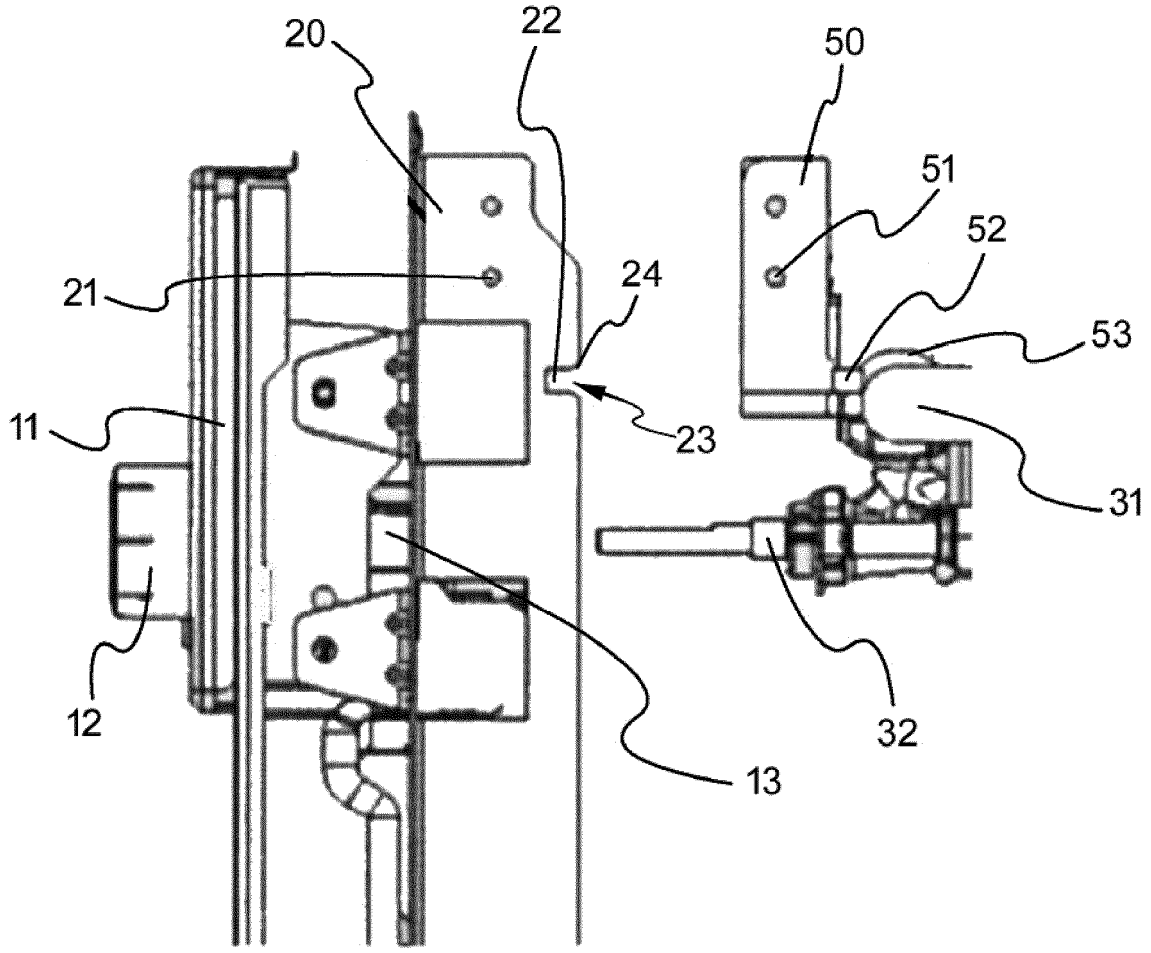

Figure 3

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EUROPEAN SEARCH REPORT

Application Number
EP 16 17 9694

DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
Y	FR 2 177 598 A1 (MARTIN USINES FONDERIE ARTHUR [FR]) 9 November 1973 (1973-11-09) * page 2, line 37 - page 3, line 6; figures 1-6 *	1-6	INV. F24C3/00 F24C3/12 G05G1/08
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Y	EP 2 587 161 A2 (BSH BOSCH SIEMENS HAUSGERAETE [DE]) 1 May 2013 (2013-05-01) * abstract; figures *	1	
Y	EP 1 772 674 A2 (WHIRLPOOL CO [US]) 11 April 2007 (2007-04-11) * paragraphs [0011], [0012]; figure 3 *	2-5	
A	US 2014/150772 A1 (FOCKLER GREGORY [US]) 5 June 2014 (2014-06-05) * paragraph [0023] - paragraph [0029]; figures 3,4,7-9 *	1-3	

TECHNICAL FIELDS SEARCHED (IPC)

F24C
H01H
G05G

The present search report has been drawn up for all claims

Place of search	Date of completion of the search	Examiner
The Hague	22 December 2016	Verdoodt, Luk

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