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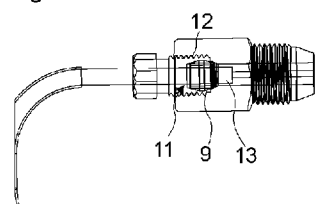
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(54) Title: A COOKING DEVICE

Figure 4



(57) **Abstract:** The present invention relates to a gas cooking device (1) comprising one or more than one gas burner (2) which provides the cooking of foodstuffs; one or more than gas tap (3) which controls the gas flow to the gas burners (2) and each having a valve (4) regulating the gas flow; one or more than knob (5) which enables the valves (4) to be rotated; and a gas delivery pipe (6) with one end connected to the gas tap (3) and the other end to the burner (2), which provides the gas delivery between the gas tap (3) and the burner (2). The gas cooking device further comprises a grouping member (7) having - a first connection member (8) which is suitable to be placed onto the gas delivery pipe (6) and which provides connection between the gas delivery pipe (6) and the gas tap (3), - a second connection member (9) which is suitable to be placed onto a housing (11) provided at the inner side of the first connection member (8) and which provides a secure connection between the gas delivery pipe (6) and the first connection member (8), and - a third connection member (10) which is placed onto the gas delivery pipe (6) to be grouped with the first connection member (8) and the second connection member (9).

Description**A COOKING DEVICE**

- [0001] The present invention relates to a gas cooking device comprising a gas delivery pipe.
- [0002] The gas cooking device generally comprises one or more than one burner which provides the cooking of foodstuffs; one or more than gas tap which controls the gas flow to the burners and each having a valve regulating the gas flow; and one or more than knob which enables the valves to be rotated. During the operation of the burners of the gas cooking device, the user pushes and rotates the relevant knob to ignite the gas. After the ignition of the gas, the user allows the knob to move backwards such that the knob can be rotated to the desired position and adjusts the flame of the burner. Said delivery of gas is carried out by means of the gas delivery pipe.
- [0003] During the ignition process, a single gas tap may be used to deliver gas to a plurality of gas burners. Depending on the direction of rotation of the gas tap, first the burner at the inner side is fed and then the flame formed is delivered to the burner at the outer side by means of a channel. The diameter of the gas delivery pipe is increased in order to deliver the gas to the burner in the predetermined standard period of time. However, the flow rate of the gas to be delivered to the burner by means of the gas delivery pipe decreases due to the increased diameter of the gas delivery pipe, and the gas is delivered in a period of time longer than the standard period of time and the ignition process is performed. This situation decreases user satisfaction.
- [0004] In the state of the art Japanese Patent Application No. JPH08121777, a fixing member is disclosed, which is used for fixing the end of the gas delivery pipe reaching the burner and aligning the same with the burner. The fixing member fixes the gas delivery pipe reaching the burner to the body of the cooking device. On the fixing member, tabs are provided which limit the upwards/downwards movement of the burner and the gas delivery pipe, thus preventing both from misaligning.
- [0005] The aim of the present invention is the realization of a gas cooking device

comprising a gas delivery pipe which delivers the gas to the burner in the predetermined standard period of time.

- [0006] The gas cooking device realized in order to attain the aim of the present invention, explicated in the first claim and the respective claims thereof, comprises one or more than gas burner which provides the cooking of foodstuffs. The gas delivery to the gas burner is controlled by one or more than one gas tap by regulating the gas flow by means of the valve. The movement of the valve is provided by one or more than one knob. The gas is delivered from the gas tap to the burner by means of the gas delivery pipe with one end connected to the gas tap and the other end to the burner.
- [0007] The gas cooking device of the present invention comprises a grouping member having a first connection member which is suitable to be placed onto the gas delivery pipe and which provides connection between the gas delivery pipe and the gas tap, a second connection member which is suitable to be placed onto a housing provided at the inner side of the first connection member and which provides a secure connection between the gas delivery pipe and the first connection member, and a third connection member which is placed onto the gas delivery pipe to be grouped with the first connection member and the second connection member. Thus, the flow rate of the gas delivered by means of the gas delivery pipe with the diameter increased and the inner cross-section decreased is prevented from decreasing, enabling the gas delivery pipe to be securely connected to the gas tap.
- [0008] In an embodiment of the present invention, the gas cooking device comprises a plurality of claws which are provided on the sides of the housing and which provide a secure connection between the second connection member placed onto the housing and the first connection member.
- [0009] In another embodiment of the present invention, the gas cooking device comprises the second connection member having a flat shape in a manner to be prevented from getting damaged while being placed onto the housing so as to remain between the first connection member and the

third connection member.

- [0010] In another embodiment of the present invention, the gas cooking device comprises the second connection member having a bulge-shaped end portion.
- [0011] In another embodiment of the present invention, the gas cooking device comprises the second connection member having an angular shape to facilitate the fixing of the same to the first connection member by being placed onto the housing.
- [0012] In another embodiment of the present invention, the gas cooking device comprises the second connection member having the cross-section thickness preventing the same from getting damaged while the gas is being delivered through the gas delivery pipe.
- [0013] In another embodiment of the present invention, the gas cooking device comprises a blocking member which is placed onto the gas delivery pipe so as to be positioned at the point where the second connection member comes into contact with the first connection member.
- [0014] By means of the present invention, a gas cooking device is realized, wherein leak-proofing is provided between the gas delivery pipe and the gas tap.
- [0015] The gas cooking device realized in order to attain the aim of the present invention is illustrated in the attached figures, where:
- [0016] Figure 1 - is the below partial perspective view of the gas cooking device.
- [0017] Figure 2 - is the sideways partial perspective view of the gas cooking device.
- [0018] Figure 3 - is the perspective view of the gas delivery pipe and the grouping member.
- [0019] Figure 4 - is the perspective view of the gas grouping member in the grouped state.
- [0020] The elements illustrated in the figures are numbered as follows:
1. Gas cooking device
 2. Burner
 3. Gas tap
 4. Valve

5. Knob
6. Gas delivery pipe
7. Grouping member
8. First connection member (union)
9. Second connection member (ferrule)
10. Third connection member (union)
11. Housing
12. Claw
13. Blocking member

[0021] The gas cooking device (1) comprises one or more than one gas burner (2) which provides the cooking of foodstuffs; one or more than gas tap (3) which controls the gas flow to the gas burners (2) and each having a valve (4) regulating the gas flow; one or more than knob (5) which enables the valves (4) to be rotated; and a gas delivery pipe (6) with one end connected to the gas tap (3) and the other end to the burner (2), which provides the gas delivery between the gas tap (3) and the burner (2). In the gas cooking devices (1), the ignition process is performed in a predetermined standard period of time. Therefore, the diameter of the gas delivery pipe (6) which is used especially in the gas cooking devices (1) having a plurality of burners (2) is increased. In order to prevent the flow rate of the gas from decreasing due to the increased diameter of the gas delivery pipe (6), the inner cross-section of the gas delivery pipe (6) is decreased, and a secure connection is provided between the gas delivery pipe (6) and the gas tap (3).

[0022] The gas cooking device (1) of the present invention comprises a grouping member (7) having a first connection member (8) which is suitable to be placed onto the gas delivery pipe (6) and which provides connection between the gas delivery pipe (6) and the gas tap (3), a second connection member (9) which is suitable to be placed onto a housing (11) provided at the inner side of the first connection member (8) and which provides a secure connection between the gas delivery pipe (6) and the first connection member (8), and a third connection member (10) which is placed onto the gas delivery pipe (6) to be grouped with the first

connection member (8) and the second connection member (9). Thus, the flow rate of the gas delivered by means of the gas delivery pipe (6) with the diameter increased and the inner cross-section decreased is prevented from decreasing, enabling the gas delivery pipe (6) to be securely connected to the gas tap (3).

[0023] In an embodiment of the present invention, the gas cooking device (1) comprises a plurality of claws (12) which are provided on the sides of the housing (11) and which provide a secure connection between the second connection member (9) placed onto the housing (11) and the first connection member (8). Thus, the second connection member (9) is enabled to be easily placed onto the housing (11) and grouped with the first connection member (8).

[0024] In another embodiment of the present invention, the gas cooking device (1) comprises the second connection member (9) having a flat shape in a manner to be prevented from getting damaged while being placed onto the housing (11) so as to remain between the first connection member (8) and the third connection member (10). The second connection member (9) may get damaged due to the force exerted thereon while being grouped with the first connection member (8) and the second connection member (10). By means of the flat shape of the second connection member (9), damage which may be caused by said force is prevented.

[0025] In another embodiment of the present invention, the gas cooking device (!) comprises the second connection member (9) having a bulge-shaped end portion. As the diameter of the gas delivery pipe (6) is increased, the diameter difference between the gas delivery pipe (6) and the second connection member (9). By means of the bulge-shaped end portion of the second connection member (9), leaking problems which may be caused by the diameter difference are prevented.

[0026] In another embodiment of the present invention, the gas cooking device (1) comprises the second connection member (9) having an angular shape to facilitate the fixing of the same to the first connection member (8) by being placed onto the housing (11). Thus, the second connection member (9) is enabled to be more easily centered and placed onto the housing (11)

and grouped with the first connection member (8).

[0027] In another embodiment of the present invention, the gas cooking device (1) comprises the second connection member (9) having the cross-section thickness preventing the same from getting damaged while the gas is being delivered through the gas delivery pipe (6). Thus, the second connection member (9) is prevented from getting cracked during the gas delivery, eliminating any possible leaking problems.

[0028] In another embodiment of the present invention, the gas cooking device (1) comprises a blocking member (13) which is placed onto the gas delivery pipe (6) so as to be positioned at the point where the second connection member (9) comes into contact with the first connection member (8).

[0029] By means of the present invention, with the gas delivery to the burner (2), the ignition process is performed within the predetermined period of time by means of the gas delivery pipe (6) with increased diameter. The problems which may occur in the connection between the gas tap (3) and the gas delivery pipe (6) due to the increase in the diameter of the latter are eliminated, and a secure connection is provided.

Claims

1. A gas cooking device (1) **comprising** one or more than one gas burner (2) which provides the cooking of foodstuffs; one or more than gas tap (3) which controls the gas flow to the gas burners (2) and each having a valve (4) regulating the gas flow; one or more than knob (5) which enables the valves (4) to be rotated; and a gas delivery pipe (6) with one end connected to the gas tap (3) and the other end to the burner (2), which provides the gas delivery between the gas tap (3) and the burner (2), **characterized by** a grouping member (7) having
 - a first connection member (8) which is suitable to be placed onto the gas delivery pipe (6) and which provides connection between the gas delivery pipe (6) and the gas tap (3),
 - a second connection member (9) which is suitable to be placed onto a housing (11) provided at the inner side of the first connection member (8) and which provides a secure connection between the gas delivery pipe (6) and the first connection member (8), and
 - a third connection member (10) which is placed onto the gas delivery pipe (6) to be grouped with the first connection member (8) and the second connection member (9).
2. A gas cooking device (1) as in Claim 1, **characterized by** a plurality of claws (12) which are provided on the sides of the housing (11) and which provide a secure connection between the second connection member (9) placed onto the housing (11) and the first connection member (8).
3. A gas cooking device (1) as in any one of the above claims, **characterized by** the second connection member (9) having a flat shape in a manner to be prevented from getting damaged while being placed onto the housing (11) so as to remain between the first connection member (8) and the third connection member (10).
4. A gas cooking device (1) as in any one of the above claims, **characterized by** the second connection member (9) having a bulge-shaped end portion.
5. A gas cooking device (1) as in any one of the above claims, **characterized by** the second connection member (9) having an angular shape to facilitate the fixing of the same to the first connection member (8) by being placed onto the

housing (11).

6. A gas cooking device (1) as in any one of the above claims, **characterized by** the second connection member (9) having the cross-section thickness preventing the same from getting damaged while the gas is being delivered through the gas delivery pipe (6).
7. A gas cooking device (1) as in any one of the above claims, **characterized by a** blocking member (13) which is placed onto the gas delivery pipe (6) so as to be positioned at the point where the second connection member (9) comes into contact with the first connection member (8).

Figure 1

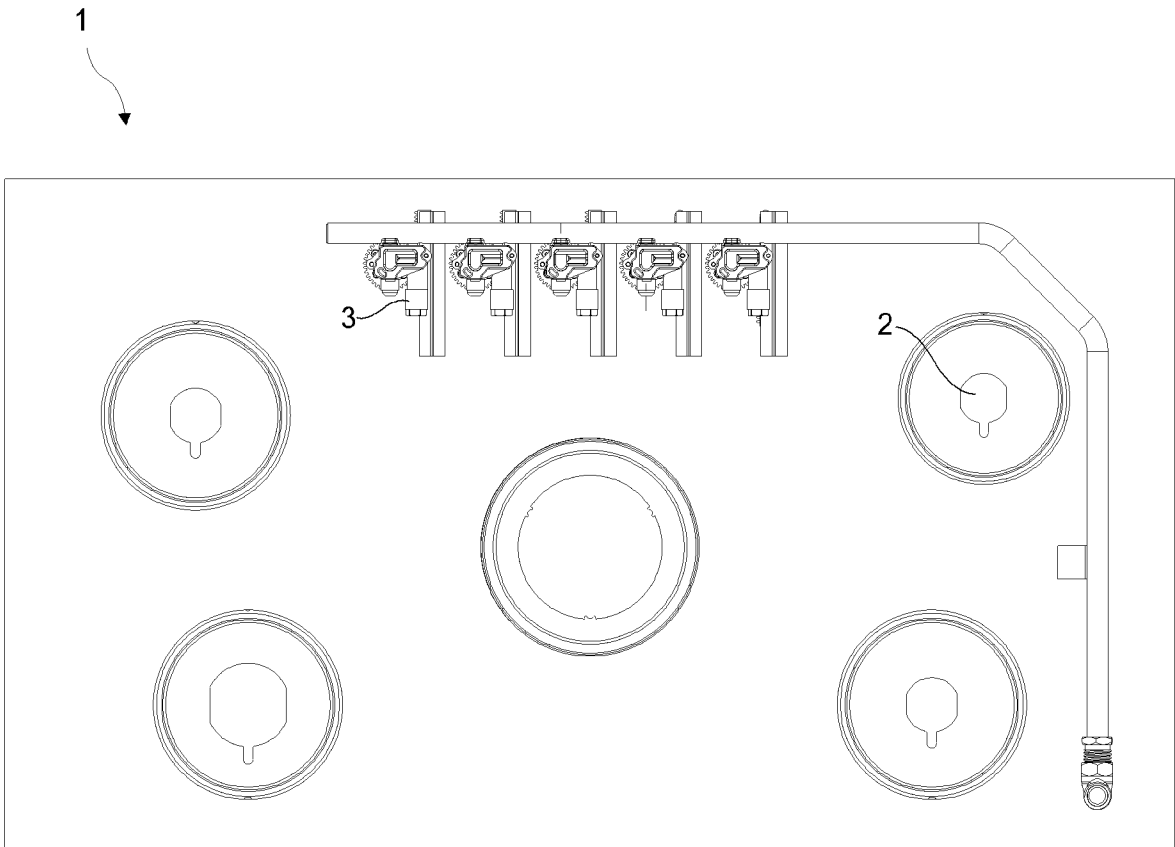


Figure 2

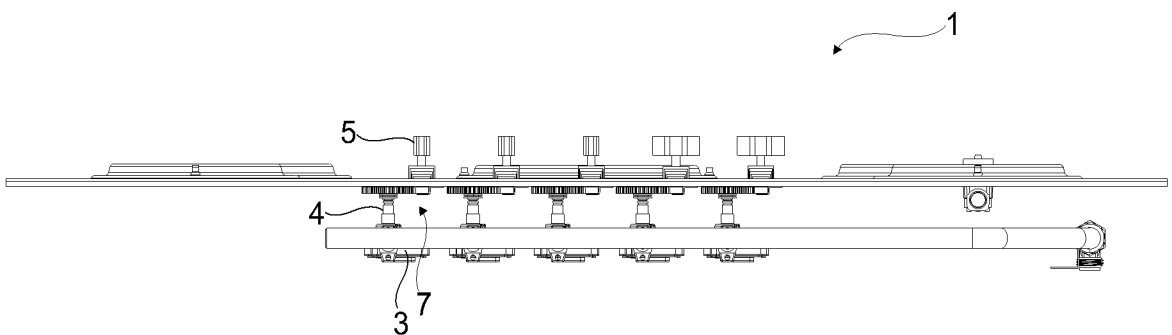


Figure 3

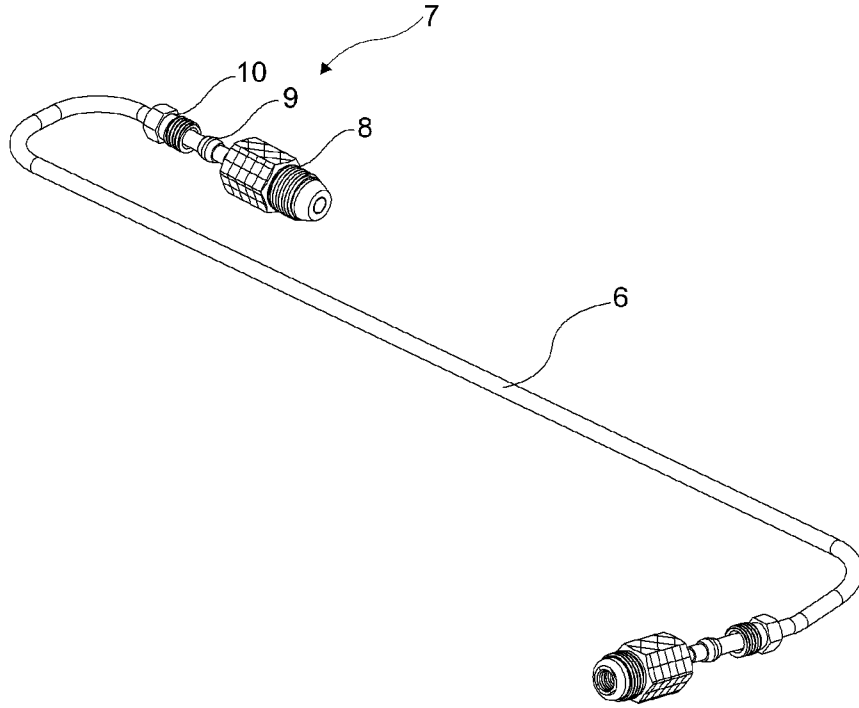
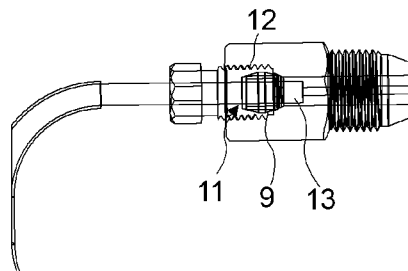


Figure 4



INTERNATIONAL SEARCH REPORT

International application No
PCT/EP2020/058323

A. CLASSIFICATION OF SUBJECT MATTER
INV. F24C3/00 F24C3/12 F16L37/098
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)
F24C F16L

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 practicable, 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	WO 2016/075579 A1 (BSH HAUSGERÄTE GMBH [DE]) 19 May 2016 (2016-05-19) page 5, line 35 - page 7, line 33; figures 1-8	1-3,7
X	ES 2 538 399 A1 (BSH ELECTRODOMESTICOS ESPANA [ES]) 19 June 2015 (2015-06-19) paragraphs [0038], [0040], [0041]; figures 1-5	1,3-6
A	WO 2015/083039 A1 (BSH HAUSGERÄTE GMBH [DE]) 11 June 2015 (2015-06-11) page 6, lines 11-36; figures 1-4	1-7
A	US 2002/093144 A1 (TAGA JUN [JP]) 18 July 2002 (2002-07-18) figures 6-18	1-7
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Further documents are listed in the continuation of Box C.

See patent family annex.

* Special categories of cited documents :

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

International application No
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C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	WO 2016/003183 A1 (KWEON TAE WOONG [KR]) 7 January 2016 (2016-01-07) figures 11,12 -----	1-7

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No PCT/EP2020/058323

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
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US 2002093144 A1	18-07-2002	NONE	

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