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(54) **AN EXHAUST HOOD ARRANGED TOGETHER WITH THE COOKTOP**

(57) The present invention relates to an exhaust hood (2), which is arranged together with a cooktop (1) having at least one heating member thereon, comprising at least one opening (4) which is provided on the cooktop (1) or adjacent thereto; a fan (3) which is provided under the cooktop (1) and which sucks air from over the cooktop (1) through the opening (4); a casing (5) under the cook-

top (1) wherein the fan (3) is disposed; a discharge hole (6) which is provided on the base of the casing (5); a lid (7) which opens/closes the discharge hole (6); and a discharge member (8) which is connected to the discharge hole (6) at one end and which provides the discharge of the waste passing through the discharge hole (6) outside the exhaust hood (2).

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Description

[0001] The present invention relates to an exhaust hood which draws the air flow downwards from the cooktop and which is arranged together with the cooktop.

[0002] In the state of the art, exhaust hoods which are integrated especially with cooktops are known. In this type of embodiments, a fan which carries out the sucking function is provided under the counter whereon the cooktop plate is placed. During the operation, the air is sucked through an opening on the cooktop plate or the counter adjacent to the cooktop plate such that an air flow is created on the cooktop and the vapor originating from vessels such as pot, etc. placed on the heating member is sucked by the fan under the counter.

[0003] In the state of the art embodiments, since the waste container has a limited volume, the emptying and cleaning process must be frequently repeated. Since the waste container is positioned under the counter, it is very difficult for the user to remove and replace the same. Moreover, very important safety risks may arise if the liquid collected in the waste container gets in contact especially with electrical components.

[0004] In the state of the art European Patent No. EP3255348, an exhaust hood is disclosed, which is disposed so as to be adjacent to the cooktop plate such that an air flow is sucked downwards in the vicinity of the cooktop plate.

[0005] In the state of the art European Patent Application No. EP0445121, an exhaust hood integrated with the cooktop is disclosed, and a fan carrying out the sucking function is provided under the counter whereon the cooktop plate is placed.

[0006] In the state of the art United States Patent Application No. US2003111456, the air is sucked through an opening on the cooktop plate on a cooking device comprising the cooktop such that an air flow is created on the cooktop and the vapor originating from vessels such as pot, etc. placed on the heating member is sucked by the fan under the counter.

[0007] In the state of the art International Patent Application No. WO9913172, an exhaust hood is disclosed, which is connected to the drain and which is disposed on the cooking device.

[0008] Another state of the art document is Japanese Patent Application No. JP59189242. In this document, the exhaust hood disposed on the cooking device is directly connected to the drain by means of a hose.

[0009] The aim of the present invention is the realization of an exhaust hood which is arranged together with the cooktop, wherein the air sucked downwards from the cooktop is discharged to the outside in an efficient and safe manner.

[0010] The exhaust hood realized in order to attain the aim of the present invention, explicated in the first claim and the respective claims thereof, is arranged together with a cooktop having at least one heating member thereon, and comprises at least one opening which is provided on the cooktop or adjacent thereto; a fan which is

provided under the cooktop and which sucks air from over the cooktop through the opening; a casing under the cooktop wherein the fan is disposed; a discharge hole which is provided on the base of the casing; a lid which opens/closes the discharge hole; and a discharge member which is connected to the discharge hole at one end and which provides the discharge of the waste passing through the discharge hole outside the exhaust hood.

[0011] In an embodiment of the present invention, the discharge member is a discharge hose with one end connected to the discharge hole and the other end to the main drain. Since the exhaust hood is directly connected to the main drain, the need for frequently cleaning is eliminated, thus providing savings in time. Moreover, the risk of any liquid overflowing and causing damage to the device or the environment wherein the device is installed is eliminated.

[0012] In another embodiment of the present invention, the discharge member is a waste collection tank.

[0013] In another embodiment of the present invention, the waste collection tank is connected to the main drain by means of the discharge hose.

[0014] In an embodiment of the present invention, the lid opening/closing the discharge hole is a spring lid and can open/close depending on the weight of the liquid. Thus, any unpleasant factors such as odor from the main drain are prevented. In this embodiment of the present invention, a rubber gasket is preferably used for ensuring the leakproofing of the discharge hole.

[0015] By means of the present invention, by connecting the exhaust hood arranged together with the cooktop to the discharge member, the need for removing and replacing the waste collection tank is eliminated.

[0016] The exhaust hood realized in order to attain the aim of the present invention is illustrated in the attached figures, where:

Figure 1 - is the perspective view of an exhaust hood and a cooktop.

Figure 2 - is the detailed perspective view of the exhaust hood and the cooktop.

Figure 3 - is the perspective view of the discharge hole and the lid.

Figure 4 - is the bottom detailed perspective view of the exhaust hood together with the waste collection tank and the discharge hose.

Figure 5 - is the perspective view of the exhaust hood together with the waste collection tank and the discharge hose.

Figure 6 - is the perspective view of the exhaust hood when the waste collection tank is mounted.

[0017] The elements illustrated in the figures are numbered as follows:

1. Cooktop
2. Exhaust hood

3. Fan
4. Opening
5. Casing
6. Discharge hole
7. Lid
8. Discharge member
9. Waste collection tank
10. Discharge hose
11. Sealing member

[0018] The exhaust hood (2) is arranged together with a cooktop (1) having at least one heating member thereon, and comprises at least one opening (4) which is provided on the cooktop (1) or adjacent thereto; a fan (3) which is provided under the cooktop (1) and which sucks air from over the cooktop (1) through the opening (4); a casing (5) under the cooktop (1) wherein the fan (3) is disposed; a discharge hole (6) which is provided on the base of the casing (5); a lid (7) which opens/closes the discharge hole (6); and a discharge member (8) which is connected to the discharge hole (6) at one end and which provides the discharge of the waste passing through the discharge hole (6) outside the exhaust hood (2) (Figure 1 and Figure 2).

[0019] In the embodiment of the present invention, the cooktop (1) is produced from for example glass or ceramic, and comprises heating members in different numbers, geometries and structures.

[0020] In an embodiment of the present invention, the heating member is a radiant heater or inductor.

[0021] In an embodiment of the present invention, the exhaust hood (2) is almost a part of the cooktop (1) which is arranged almost adjacent to the cooktop (1), or is closed by means of an additional lid. The exhaust hood (2) comprises a fan (3) designed as a suction fan (3). When the exhaust hood (2) is operated, the fan (3) starts to operate and the vapor leaving the cooking vessel placed onto the cooktop (1) is sucked through the opening (4) into the casing (5) with the operation of the fan (3). Here, the vapor and the condensed liquid reaches the discharge hole (6) so as to be transferred out of the exhaust hood (2) via the discharge member (8).

[0022] In the preferred embodiment of the present invention, the discharge member (8) is a discharge hose (10) with one end connected to the discharge hole (6) and the other end to the main drain. In this embodiment, when the exhaust hood (2) is operated, the fan (3) starts to operate and the vapor leaving the cooking vessel placed onto the cooktop (1) is sucked through the opening (4) into the casing (5) with the operation of the fan (3) so as to reach the discharge hole (6) and to be discharged to the main drain by means of the discharge hose (10). Since the exhaust hood (2) is directly connected to the main drain, the need for frequently cleaning is eliminated, thus providing savings in time. Moreover, the risk of any liquid overflowing and causing damage to the device or the environment wherein the device is installed is eliminated (Figure 4 and Figure 5).

[0023] In another embodiment of the present invention, the discharge member (8) is a waste collection tank (9) (Figure 6).

[0024] In another embodiment of the present invention, the waste collection tank (9) is connected to the main drain by means of the discharge hose (10).

[0025] In an embodiment of the present invention, the lid (7) opening/closing the discharge hole (6) is a spring lid (7) and can open/close depending on the weight of the liquid. Thus, any unpleasant factors such as odor from the main drain are prevented (Figure 3).

[0026] In this embodiment of the present invention, a sealing member (11) placed on the wall of the discharge hole (6) is used for ensuring the leakproofing of the discharge hole (6). The sealing member (11) is preferably a rubber gasket.

[0027] By means of the present invention, by connecting the exhaust hood (2) arranged together with the cooktop (1) to the discharge member (8), the need for removing and replacing the waste collection tank (9) is eliminated.

Claims

1. An exhaust hood (2), which is arranged together with a cooktop (1) having at least one heating member thereon, **comprising** at least one opening (4) which is provided on the cooktop (1) or adjacent thereto and a fan (3) which is provided under the cooktop (1) and which sucks air from over the cooktop (1) through the opening (4), **characterized by** a casing (5) under the cooktop (1) wherein the fan (3) is disposed; a discharge hole (6) which is provided on the base of the casing (5); a lid (7) which opens/closes the discharge hole (6); and a discharge member (8) which is connected to the discharge hole (6) at one end and which provides the discharge of the waste passing through the discharge hole (6) outside the exhaust hood (2).
2. An exhaust hood (2) as in Claim 1, **characterized by** being almost a part of the cooktop (1) and being arranged almost adjacent to the cooktop (1).
3. An exhaust hood (2) as in Claim 1, **characterized by** being closed by an additional lid.
4. An exhaust hood (2) as in Claim 1, 2 and 3, **characterized by** a fan (3) designed as a suction fan (3).
5. An exhaust hood (2) as in Claim 1, **characterized by** the discharge member (8) comprising a discharge hose (10) with one end connected to the discharge hole (6) and the other end to the main drain.
6. An exhaust hood (2) as in Claim 1, **characterized by** the discharge member (8) comprising a waste

collection tank (9).

7. An exhaust hood (2) as in Claim 6, **characterized by** the waste collection tank (9) which is connected to the main drain by means of the discharge hose (10). 5
8. An exhaust hood (2) as in Claim 1, **characterized by** a spring lid (7) which opens/closes the discharge hole (6). 10
9. An exhaust hood (2) as in Claim 1, **characterized by** a sealing member (11) which is placed on the wall of the discharge hole (6) for ensuring the leak-proofing of the discharge hole (6). 15

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Figure 1

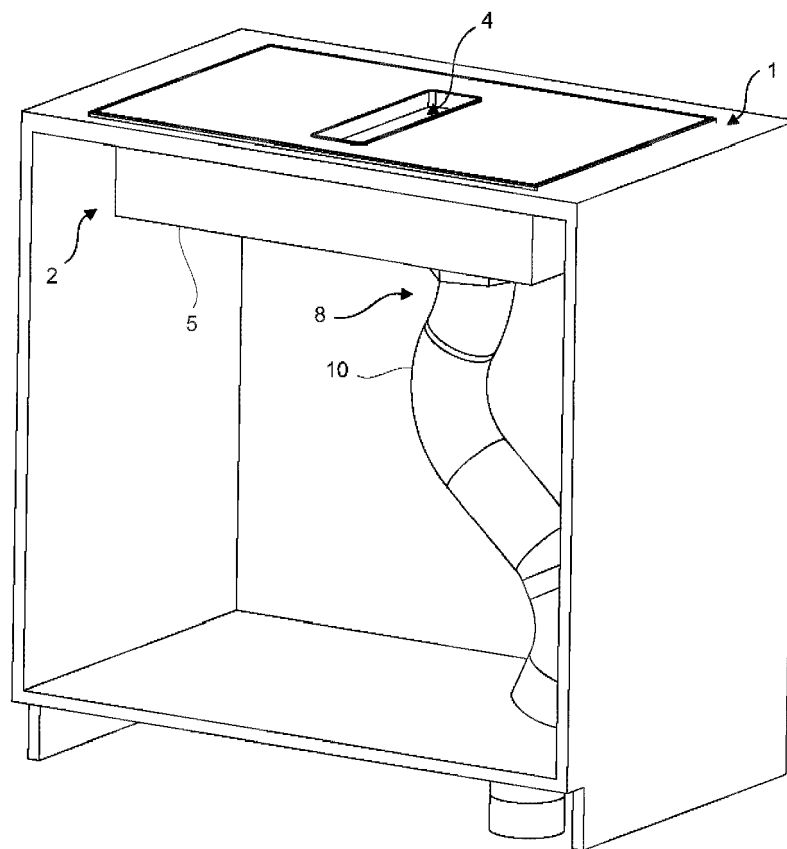


Figure 2

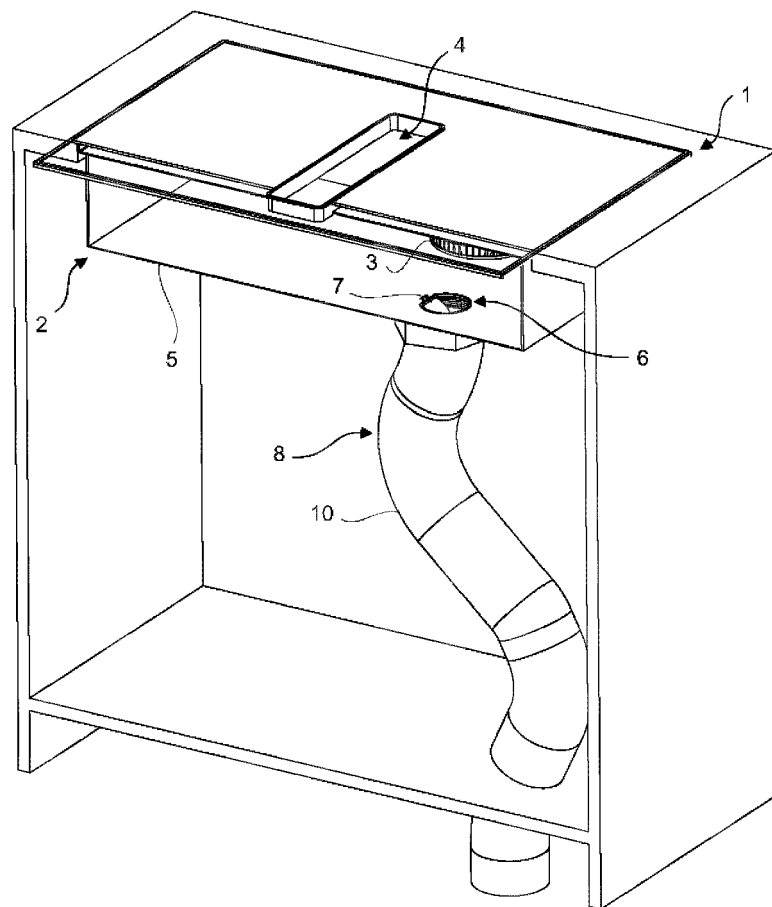


Figure 3

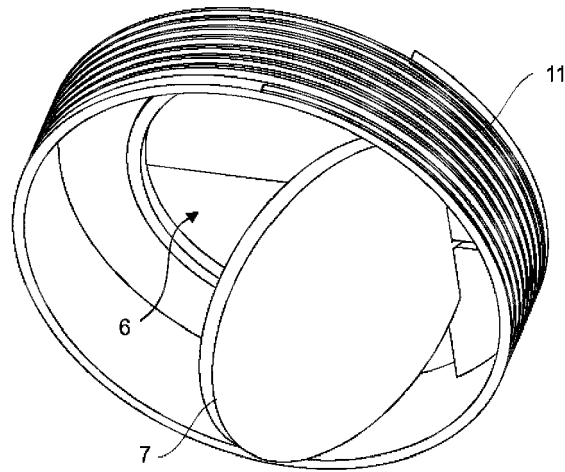


Figure 4

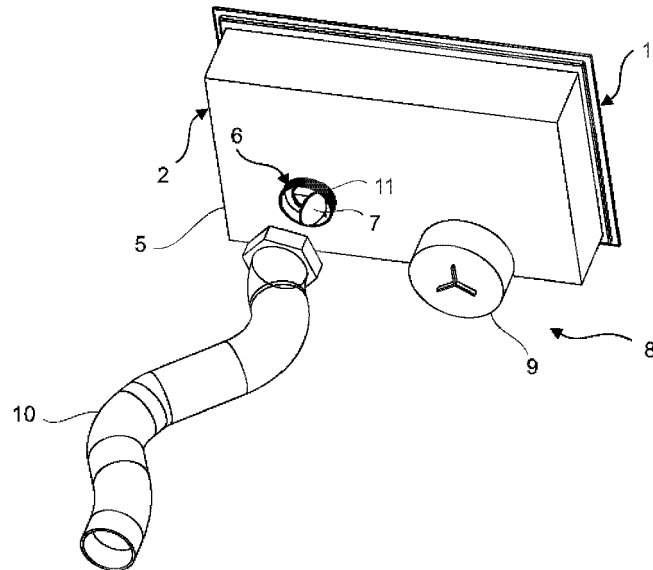


Figure 5

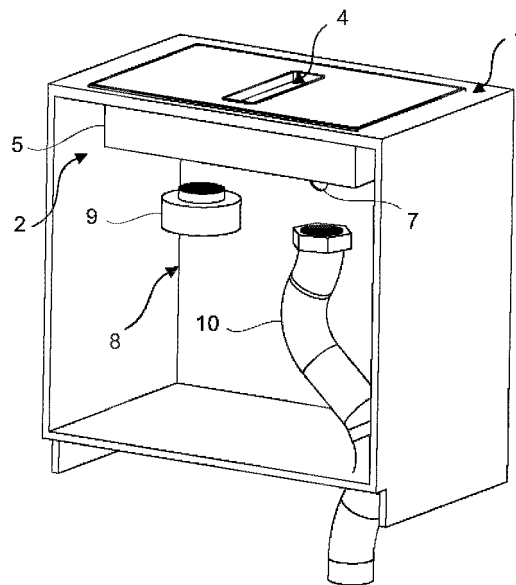
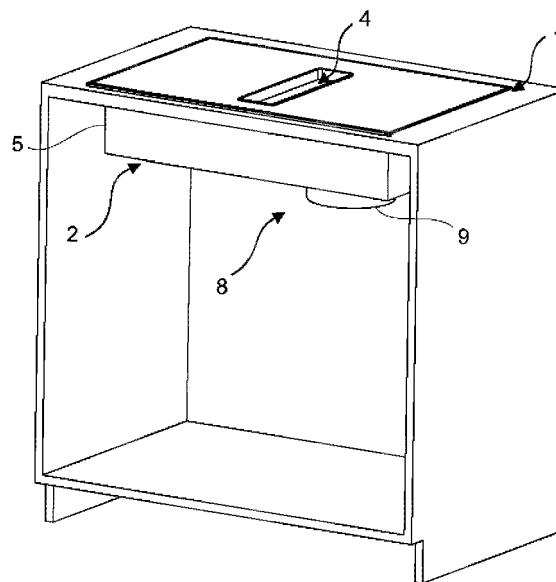


Figure 6





EUROPEAN SEARCH REPORT

Application Number
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X	DE 20 2016 003254 U1 (CDS-DESIGN GMBH [DE]) 22 June 2016 (2016-06-22) * claim 1; figure 1 *	1-5,9	
			TECHNICAL FIELDS SEARCHED (IPC)
			F24C
The present search report has been drawn up for all claims			
Place of search The Hague		Date of completion of the search 14 April 2021	Examiner Meyers, Jerry
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EP 20 21 0335

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14-04-2021

10	Patent document cited in search report	Publication date	Patent family member(s)	Publication date
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15	DE 202016003254 U1	22-06-2016	NONE	

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For more details about this annex : see Official Journal of the European Patent Office, No. 12/82

REFERENCES CITED IN THE DESCRIPTION

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