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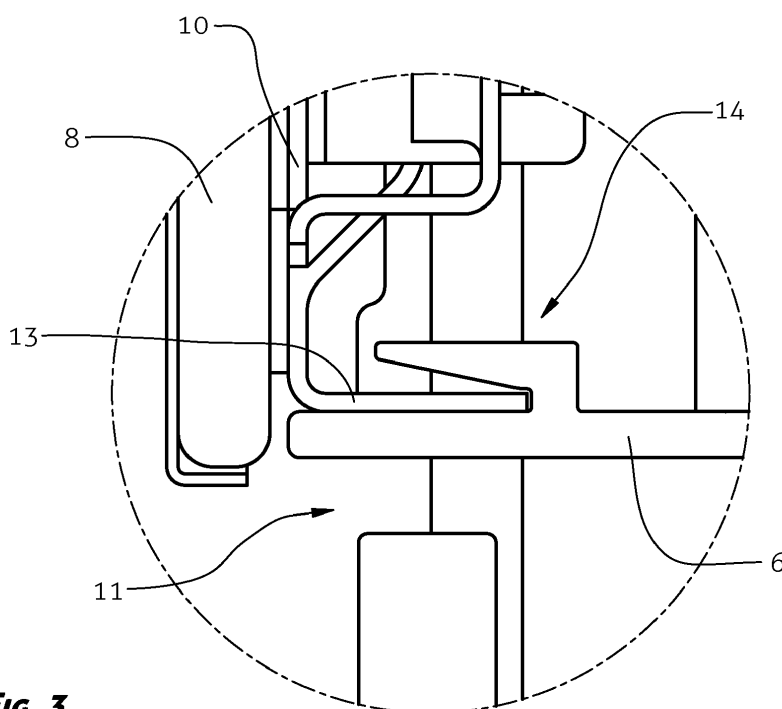
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(54) **Connection at a household apparatus**

(57) The present invention refers to a household apparatus, preferably to an oven, in particular to a mutual connection of two neighbouring elements, and even more particular to a mutual connection of a gas and/or vapour guide from the interior of the oven and the front plate

carrier. It is provided for, according to the present invention, that a guide (6) is formed at the side facing a front plate (8) and, respectively, an exit opening (11) with a fork like receptacle (14) provided for the cooperation with a leg (13) of a carrier (10).



**Fig. 3**

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## Description

**[0001]** The present invention refers to a household apparatus, preferably to an oven, in particular to a mutual connection of two neighbouring elements, and even more particular to a mutual connection of a gas and/or vapour guide from the interior of the oven and the front plate carrier.

**[0002]** Known solutions disclosing connection of two neighbouring elements in a household oven, in particular a connection of a gas and/or vapour guide from the interior of the oven and the front plate carrier, provide for that an exit end of the guide rests directly against the front plate of the oven. Further, a gasket is provided between the front plate and the exit end of the guide in order to prevent unwanted flow of hot gasses and/or vapours. In spite to said measures, it occurs rather often that said hot gasses and/or vapours leak unexpectedly, causing unwanted warming up of the electric elements.

**[0003]** It is the object of the present invention to create a connection of a gas and/or vapour guide and the front plate carrier with the household apparatus, thus, remedying drawbacks of known solutions.

**[0004]** The object as set above is solved by characteristics disclosed in the characterising clause of the claim 1. Detail of the invention are further disclosed in sub-claims.

**[0005]** The invention is further described in detail by way of non-limiting preferred embodiment, and with a reference to the accompanying drawing, where

- Fig. 1 shows a three-dimensional back-side view of a household apparatus, in particular of an oven,  
 Fig. 2 shows a cross-sectional view in plane II of a household apparatus of Fig. 1,  
 Fig. 3 shows a detail III of Fig. 2.

**[0006]** A connection with a household apparatus, in particular with the oven, provides for a mutual connection of a gas and/or vapour guide from the interior of the oven preferably of a plastic guide, and the front plate carrier made preferably of metal. Hot gases and/or vapours develop during operation in said household oven 1 which are to be exhausted from the interior of the oven. The evacuation of hot gases and/or vapours is carried out by means of a device for exhausting hot gases and/or vapours comprising an outlet channel 2 having a blower 3 at the first end which sucks cool surrounding air and pushes it through said channel 2, and a suction channel 4 through which said hot gases and/or vapours are sucked out of the interior of the oven 1 by means of the negative pressure created by said air flow driven by said blower 3. Said channel 2 comprises a bottom, formed in the present embodiment by a top wall 5 of the oven 1, and a guide 6 in a form of a cover made in the present embodiment preferably of a plastic. The exit end 7 of said outlet channel 2 faces a front plate 8 and extends up to the close vicinity thereof, thus, directing the flow of hot

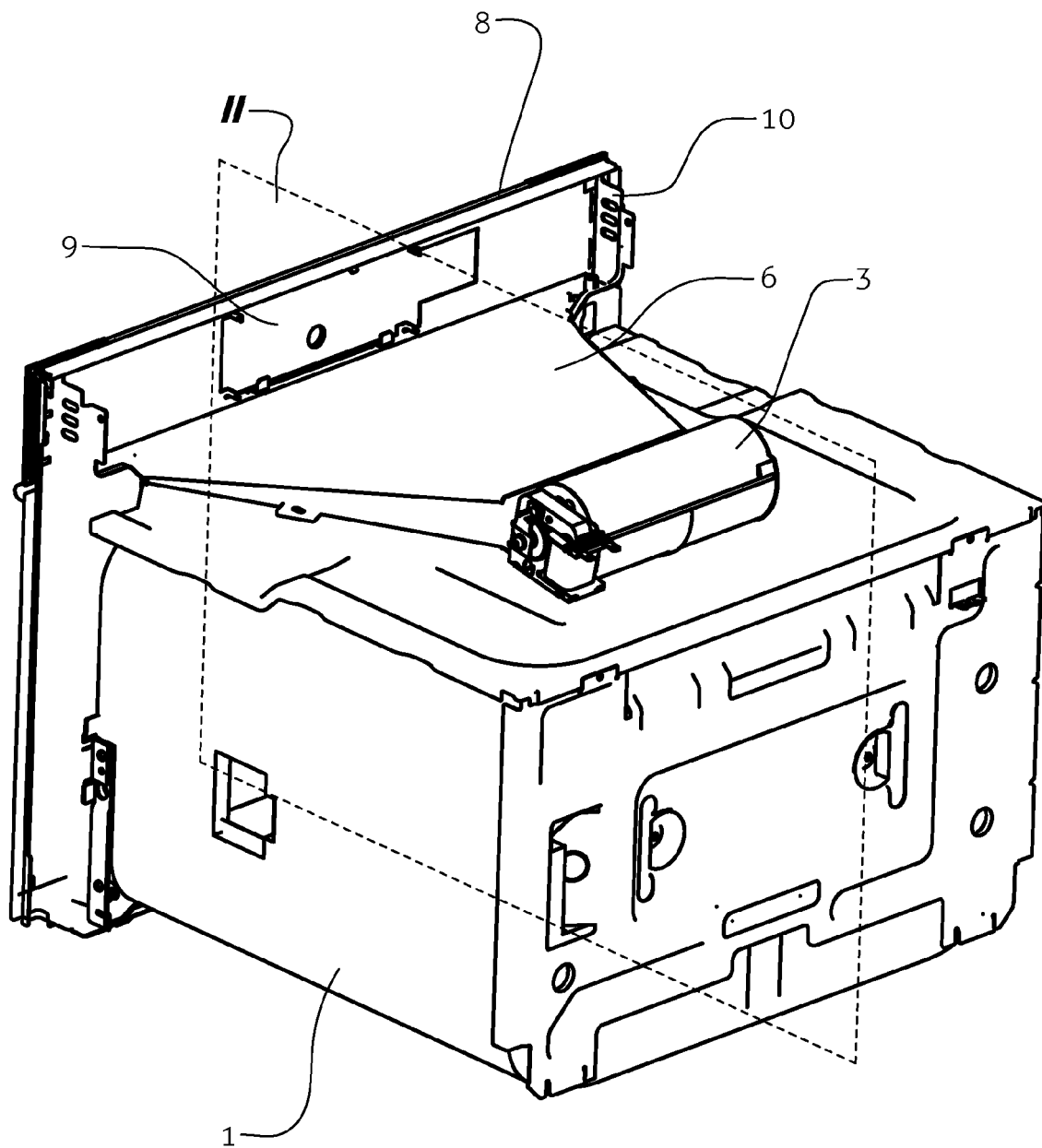
gases and/or vapours through an exit opening 11 formed between a door 12 of the oven 1 and the front plate 8. A control module 9 is arranged on said front plate 8 at the side facing the interior of the household apparatus, said module being fixed on a carrier 10 of the front plate 8. Said carrier 10 is arranged on the internal side of the front plate 8 and is formed at least in the area of said exit opening 11 with a leg 13 formed approximately perpendicularly to said carrier 10 and extending at least over the entire length of the exit opening 11 and, respectively, the carrier 10.

**[0007]** In order to provide connection between said guide 6 and said carrier 10 as good as possible, said guide 6 comprises at the side facing the front plate 8 and, respectively, the exit opening 11 a fork like receptacle 14 provided to cooperate with said leg 13 of the carrier 10. According to the present invention, it is provided for that said fork like receptacle 14 extend in the area of said connection at least over a part of the width of the guide 6, preferably over the entire width of the guide 6. The fork like receptacle 14 accommodates said leg 13, thus, ensuring a precise positioning of the guide 6 and a tight connection between the guide 6 and the carrier 10.

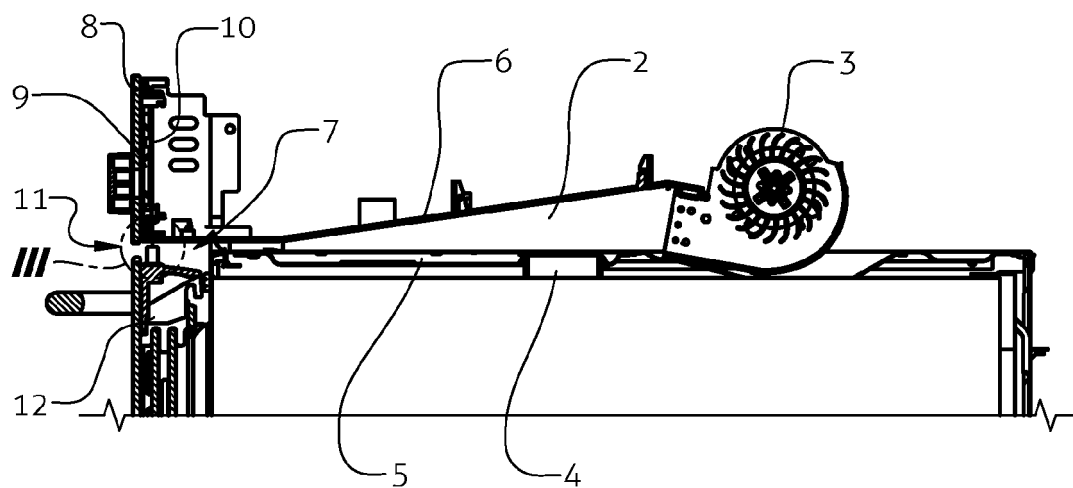
**[0008]** In addition, said provision prevents hot gases and/or vapours, that are lead through said exit opening 11 into the surrounding by means of said guide 6, to leak between said two elements what would result in warming up of the control module and other electric elements of the household apparatus. Warming up of the upper front part of the household apparatus is also prevented. Furthermore, the solution according to the present invention render additional insulation between the carrier 10 of the front plate 8 and the guide 6 superfluous.

## Claims

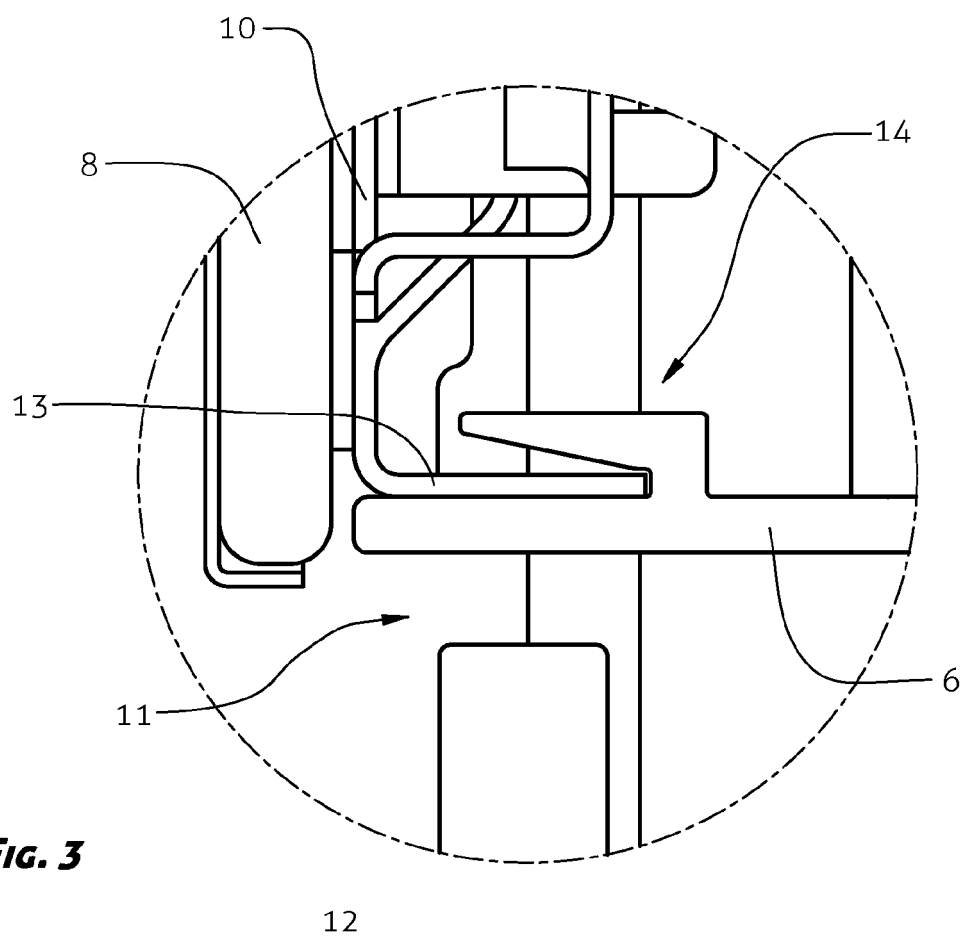
1. A connection at a household apparatus, preferably at an oven, in particular a mutual connection of two neighbouring elements, and even more particular a mutual connection of a gas and/or vapour guide from the interior of the oven and the front plate carrier, **characterized in that** a guide (6) is formed at the side facing a front plate (8) and, respectively, an exit opening (11) with a fork like receptacle (14) provided for the cooperation with a leg (13) of a carrier (10).
2. A connection at a household apparatus according to claim 1, **characterized in that** in the area of said mutual connection said fork like receptacle (14) extends at least over a part of the width of the guide (6), preferably over the entire width of the guide (6).
3. A connection at a household apparatus according to claim 1, **characterized in that** the fork like receptacle (14) accommodates said leg (13), thus, ensuring a precise positioning of the guide (6) and a tight connection between the guide (6) and the carrier (10).



**FIG. 1**



**FIG. 2**



**FIG. 3**