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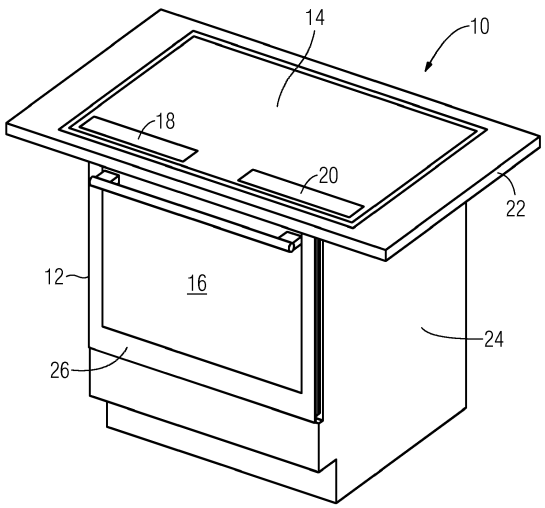
(54) COOKING APPLIANCE WITH A COOKING OVEN AND A COOKING HOB

(57) The present invention relates to a cooking appliance (10) comprising at least one cooking oven (12), at least one cooking hob (14) and a control system. The cooking oven (12) includes at least one oven cavity (16). The cooking hob (14) includes at least one cooking zone. The control system includes at least one user interface (18, 20) and at least one control circuit. The user interface (18, 20) is formed as an input device and/or as an input/output device. The one or more user interfaces (18, 20) are provided for controlling the cooking oven (12) and the cooking hob (14). The at least one control circuit is interconnected between the corresponding user interface (18, 20) on the one hand and the corresponding cooking oven (12) and/or cooking hob (14) on the other hand. The user interface (18) for controlling the cooking oven (12) is an integrated part of the cooking hob (12). Further, the present invention relates to a cooking hob (14) including at least one user interface (18) formed as an integrated part of said cooking hob (14), wherein the user interface (18, 20) is formed as an input device and/or as an input/output device, and wherein the user interface (18, 20) is provided for controlling a corresponding cooking oven (12).

FIG 1



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Description

[0001] The present invention relates to a cooking appliance comprising a cooking oven and a cooking hob. Further, the present invention relates to a cooking hob including a user interface.

[0002] A cooking appliance with a cooking oven and a cooking hob comprises at least one user interface for controlling said cooking oven and cooking hob. Usually, the user interface of the cooking hob is integrated within said cooking hob or arranged besides said cooking hob. Further, the user interface of the cooking oven is typically integrated within said cooking oven. For example, the user interface of the cooking oven is integrated within a front plate arranged above the oven door. In this case, the user interface restricts the volume of an oven cavity of said cooking oven.

[0003] It is an object of the present invention to provide a cooking appliance with a cooking oven and a cooking hob, which allows an enhanced volume for the oven cavity of said cooking oven.

[0004] The object is achieved by the cooking appliance according to claim 1.

[0005] The cooking appliance according to the present invention comprises at least one cooking oven, at least one cooking hob and a control system, wherein

- the cooking oven includes at least one oven cavity,
- the cooking hob includes at least one cooking zone,
- the control system includes at least one user interface and at least one control circuit,
- the user interface is formed as an input device and/or as an input/output device,
- the one or more user interfaces are provided for controlling the cooking oven and the cooking hob,
- the at least one control circuit is interconnected between the corresponding user interface on the one hand and the corresponding cooking oven and/or cooking hob on the other hand, and
- the user interface for controlling the cooking oven is an integrated part of the cooking hob.

[0006] The core of the present invention is that the user interface for controlling the cooking oven is an integrated part of the cooking hob. The arrangement of the user interface for controlling the cooking oven within the cooking hob provides an enhanced volume for the oven cavity of the cooking oven. In particular, the user interface for controlling the cooking hob is also an integrated part of said cooking hob. This arrangement of the one or more user interfaces saves costs of the cooking appliance.

[0007] Preferably, at least a part of the control circuit is an integrated part of the cooking hob. Alternatively, the control circuit for the cooking oven may be arranged inside said cooking oven, wherein the volume for the oven cavity is substantially not restricted. Moreover, a part of the control circuit for the cooking oven may be arranged inside the cooking hob, while another part of said control circuit for the cooking oven may be arranged inside the cooking oven.

[0008] Further, at least a part of the control circuit and the corresponding user interface may form a structural unit.

[0009] For example, the cooking appliance comprises a worktop or corresponds with a portion of a work top, wherein the cooking hob is arranged above the worktop or portion of the worktop, respectively, and/or in a cut-out of said worktop or portion of the worktop, respectively.

[0010] Alternatively, the cooking hob may be a self-containing structural unit.

[0011] For example, the cooking appliance comprises an oven cabinet, wherein the cooking oven is received by said oven cabinet.

[0012] Alternatively, the cooking oven may be a self-containing structural unit.

[0013] For example, the cooking hob is arranged above the cooking oven.

[0014] Alternatively, the cooking oven and the cooking hob may be placed in different distant locations of the kitchen.

[0015] In particular, the cooking oven and/or the oven cabinet have standardized sizes, wherein preferably the cooking oven and/or the oven cabinet have a base area of 600 mm x 600 mm.

[0016] For example, the user interface for controlling the cooking oven may be connected or connectable to said cooking oven via a cable connection.

[0017] Alternatively, the user interface for controlling the cooking oven is connected or connectable to said cooking oven via a wireless connection, in particular an infra-red and/or a radio signal connection.

[0018] Preferably, the at least one operating panel and/or at least one display panel of the user interface extend horizontally on the cooking hob.

[0019] In particular, the user interface includes at least one operating element and/or at least one display device, wherein the operating element and/or the display device are arranged at the same level as the cooking zones of the cooking hob.

[0020] Further, the present invention relates to a cooking hob including at least one user interface formed as an integrated part of said cooking hob, wherein the user interface is formed as an input device and/or as an input/output device, and wherein the user interface is provided for controlling a corresponding cooking oven, and wherein the cooking hob is provided for the cooking appliance mentioned above.

[0021] Novel and inventive features of the present invention are set forth in the appended claims.

[0022] The present invention will be described in further detail with reference to the drawing, in which

FIG 1 illustrates a schematic perspective view of a cooking appliance according to a preferred embodiment of the present invention.

[0023] FIG 1 illustrates a schematic perspective view of a cooking appliance 10 according to a preferred embodiment of the present invention. The cooking appliance 10 comprises a cooking oven 12 and a cooking hob 14.

[0024] The cooking oven 12 includes an oven cavity 16 and an oven door 26 for closing said oven cavity 16. In this example, the cooking oven 12 is incorporated in an oven cabinet 24. Alternatively, the cooking oven 12 may be a self-containing structural unit. In this embodiment, a worktop 22 is arranged upon the oven cabinet 24, wherein the worktop 22 covers the oven cabinet 24. In this example, the cooking hob 14 is integrated within the worktop 22. Alternatively, the cooking hob 14 may be a self-containing structural unit arranged upon the oven cabinet 24 or the self-containing cooking oven 12.

[0025] The cooking hob 14 includes a first user interface 18 and a second user interface 20. Further, the cooking hob 14 includes one or more cooking zones. In this example, the first user interface 18 is provided for controlling the cooking oven 12, while the second user interface 20 is provided for controlling the cooking hob 14. In general, the cooking hob 14 may include one or more user interfaces 18 and 20 for controlling the cooking oven 12 and/or the cooking hob 14. Furthermore, the cooking hob 14 may include a single user interface provided for controlling the cooking oven 12 as well as the cooking hob 14. The first user interface 18 is formed as an input device or as an input/output device. In a similar way, the second user interface 20 is formed as input device or as input/output device.

[0026] An operating panel of each user interface 18 and 20 extends horizontally on the cooking hob 14. Further, an optional display panel of each user interface 18 and 20 may extend horizontally on the cooking hob. Preferably, the operating panel and the optional display panel of the user interfaces 18 and 20 are arranged at the same level a panel of the cooking hob 14.

[0027] Further, the cooking appliance 10 comprises one or more control circuits. In this example, a first control circuit is interconnected between the first user interface 18 and the cooking oven 12, while a second control circuit is interconnected between the second user interface 20 and the cooking hob 14. Preferably, the user interface 18 or 20, respectively, and the corresponding control circuit form a structural unit.

[0028] Moreover, a signal connection between the first user interface 18 and the cooking oven 12 is formed by a wire connection or a wireless connection. In the latter case, the wireless connection may be realized by infrared light or radio signals.

[0029] A signal connection between the second user interface 20 and the cooking hob 14 is preferably formed by a wire connection. Alternatively, the signal connection between the second user interface 20 and the cooking hob 14 may be also formed by a wireless connection, e. g. infra-red light or radio signals.

[0030] In the preferred embodiment of the present invention the cooking hob 14 is arranged above the cooking oven 12. Alternatively, the cooking oven 12 and the cooking hob 14 may be placed in different distant locations of the kitchen. In general, the cooking oven 12 and the cooking hob 14 may be arranged in arbitrary suitable positions of the kitchen.

[0031] The arrangement of the user interfaces 18 and 20 within the cooking hob 14 allows a bigger volume for the oven cavity 16 of the cooking oven 12. The complete space below the worktop 22 can be used for the oven cavity 16 of the cooking oven 12.

[0032] Although an illustrative embodiment of the present invention has been described herein with reference to the accompanying drawing, it is to be understood that the present invention is not limited to that precise embodiment, and that various other changes and modifications may be affected therein by one skilled in the art without departing from the scope or spirit of the invention. All such changes and modifications are intended to be included within the scope of the invention as defined by the appended claims.

List of reference numerals

[0033]

10	cooking appliance
12	cooking
14	cooking
16	oven cavity
18	first user interface
20	second user interface
22	worktop
24	oven cabinet
26	oven door

Claims

1. A cooking appliance (10) comprising at least one cooking oven (12), at least one cooking hob (14) and a control system, wherein

- the cooking oven (12) includes at least one oven cavity (16),
- the cooking hob (14) includes at least one cooking zone,
- the control system includes at least one user interface (18, 20) and at least one control circuit,
- the user interface (18, 20) is formed as an input device and/or as an input/output device,
- the one or more user interfaces (18, 20) are provided for controlling the cooking oven (12) and the cooking hob (14),
- the at least one control circuit is interconnected between the corresponding user interface (18, 20) on the one hand and the corresponding cooking oven (12) and/or cooking hob (14) on the other hand, and

- the user interface (18) for controlling the cooking oven (12) is an integrated part of the cooking hob (12).

2. The cooking appliance according to claim 1, **characterised in that** at least a part of the control circuit is an integrated part of the cooking hob (12).

3. The cooking appliance according to claim 1 or 2, **characterised in that** at least a part of the control circuit and the corresponding user interface (18, 20) form a structural unit.

4. The cooking appliance according to any one of the preceding claims, **characterised in that** the cooking appliance (10) comprises a worktop (22) or corresponds with a portion of a work top, wherein the cooking hob (14) is arranged above the worktop (22) or portion of the worktop, respectively, and/or in a cut-out of said worktop (22) or portion of the worktop, respectively.

5. The cooking appliance according to any one of the claims 1 to 3, **characterised in that** the cooking hob (14) is a self-containing structural unit.

6. The cooking appliance according to any one of the preceding claims, **characterised in that** the cooking appliance (10) comprises an oven cabinet (24), wherein the cooking oven (12) is received by said oven cabinet (24).

7. The cooking appliance according to any one of the claims 1 to 5, **characterised in that** the cooking oven (12) is a self-containing structural unit.

8. The cooking appliance according to any one of the preceding claims, **characterised in that** the cooking hob (14) is arranged above the cooking oven (12).

9. The cooking appliance according to any one of the claims 1 to 8, **characterised in that** the cooking oven (12) and the cooking hob (14) are placed in different distant locations of the kitchen.

10. The cooking appliance according to any one of the preceding claims, **characterised in that** the cooking oven (12) and/or the oven cabinet (24) have standardized sizes, wherein preferably the cooking oven (12) and/or the oven cabinet (24) have a base area of 600 mm x 600 mm.

11. The cooking appliance according to any one of the preceding claims, **characterised in that** the user interface (18) for controlling the cooking oven (12) is connected or connectable to said cooking oven (12) via a cable connection.

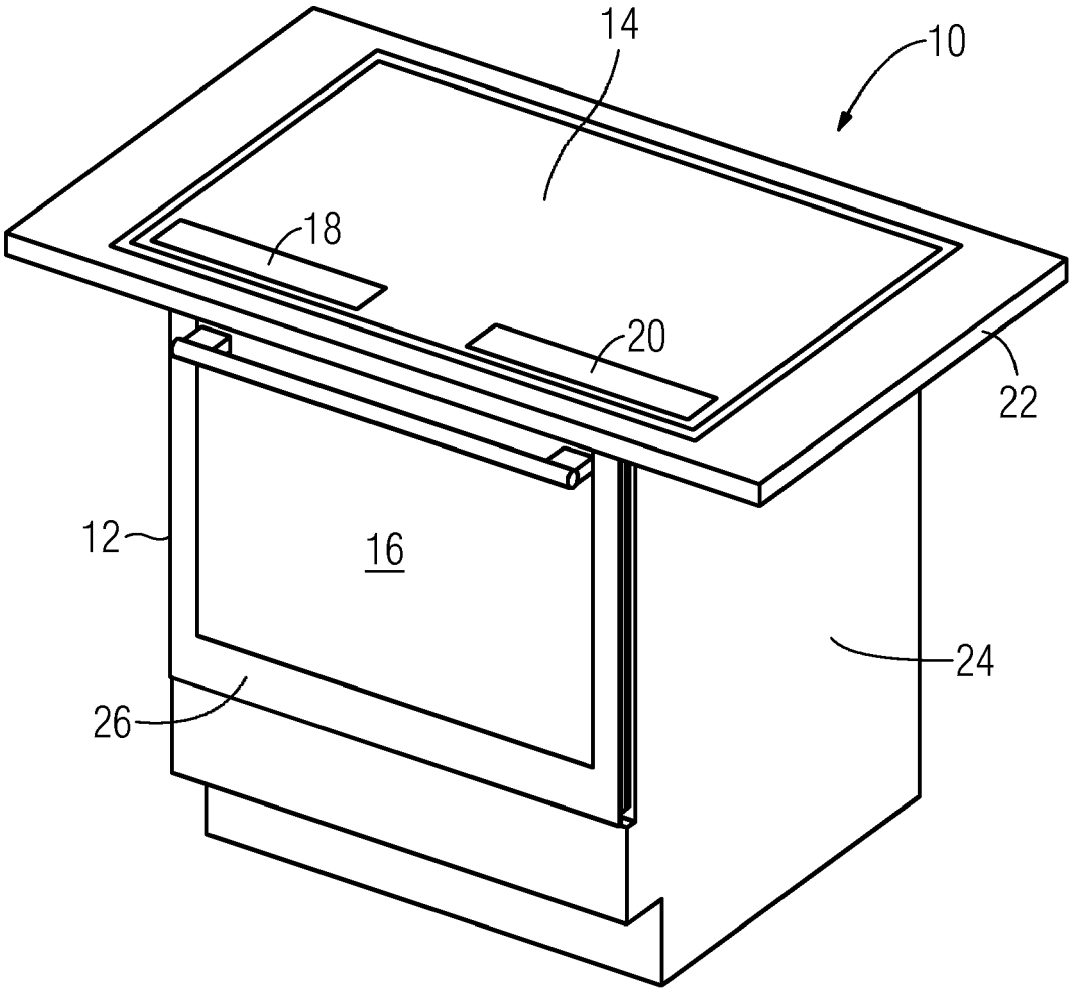
12. The cooking appliance according to any one of the preceding claims, **characterised in that** the user interface (18) for controlling the cooking oven (12) is connected or connectable to said cooking oven (12) via a wireless connection, in particular an infra-red and/or a radio signal connection.

13. The cooking appliance according to any one of the preceding claims, **characterised in that** at least one operating panel and/or at least one display panel of the user interface (18, 20) extend horizontally on the cooking hob (14).

14. The cooking appliance according to any one of the preceding claims, **characterised in that** the user interface (18, 20) includes at least one operating element and/or at least one display device, wherein the operating element and/or the display device are arranged at the same level as the cooking zones of the cooking hob (14).

15. A cooking hob (14) including at least one user interface (18) formed as an integrated part of said cooking hob (14), wherein the user interface (18, 20) is formed as an input device and/or as an input/output device, and wherein the user interface (18, 20) is provided for controlling a corresponding cooking oven (12), and wherein the cooking hob (14) is provided for the cooking appliance (10) according to any one of the claims 1 to 14.

FIG 1



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EUROPEAN SEARCH REPORT

Application Number
EP 15 17 4722

DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
X	EP 0 831 276 A1 (FOX SPA DI RENZO BOMPANI & C [IT]) 25 March 1998 (1998-03-25) * the whole document *	1-15	INV. F24C7/08
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X	EP 1 505 349 A2 (BSH BOSCH SIEMENS HAUSGERAETE [DE]) 9 February 2005 (2005-02-09) * figure 1 *	1-3,8,9, 14,15	
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			TECHNICAL FIELDS SEARCHED (IPC) F24C

The present search report has been drawn up for all claims

Place of search	Date of completion of the search	Examiner
The Hague	2 December 2015	Meyers, Jerry

CATEGORY OF CITED DOCUMENTS

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EPO FORM 1503 03.82 (P04C01)

ANNEX TO THE EUROPEAN SEARCH REPORT ON EUROPEAN PATENT APPLICATION NO. EP 15 17 4722

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report. The members are as contained in the European Patent Office EDP file on
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02-12-2015

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