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(54) **COMBINATION APPLIANCE**

(57) The invention relates to a combination appliance (10) comprising a cooking hob (12), which comprises at least one worktop (14) having an opening (16) formed therein, and an extraction device (18), which is arranged below the worktop (14) and comprises at least one fan unit (20) configured to suck air from an area above the cooking hob (12) through the opening (16) of the worktop (14), and at least one filter unit (33) configured to filter the air sucked by the fan unit (20), wherein the combina-

tion appliance (10) further comprises a fluid inlet port (26), which is configured to be connected to a fluid source (28), in particular a domestic water supply (28), and to supply fluid from the fluid source (28), and a fluid dispensing device (30), which is fluidically connected to the liquid inlet port (26), wherein the fluid dispensing device (30) is configured to be operated at least in a steam dispensing mode in which it is configured to dispense steam.

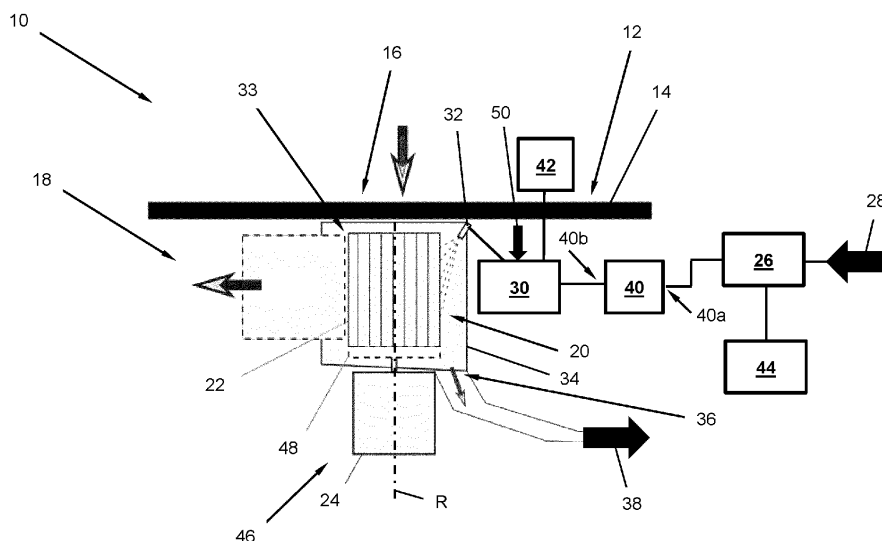


FIG. 1

Description

[0001] The present invention relates to a combination appliance.

[0002] During the performance of cooking activities by using a cooking hob, kitchen vapours are generated, which are distributed over the cooking area. In order to avoid these kitchen vapours to be spread throughout the entire kitchen space, an arrangement of an extraction device, particularly an extractor hood, is common. Said extraction device is operated in parallel to the cooking hob, thereby sucking in those kitchen vapours in order to filter out particles and tiny droplets from the vapours and/or to blow the vapours to the outside of the building. While it has been common to arrange such an extractor hood above the cooking area, in recent years downdraft extraction devices have been finding a growing market.

[0003] A known combination appliance usually comprises a cooking hob, such as an induction hob, which comprises at least one worktop having an opening formed therein, and an extraction device, which is arranged below the worktop and comprises at least one fan unit configured to suck air from an area above the cooking hob through the opening of the worktop, and at least one filter unit configured to filter the air sucked by the fan unit.

[0004] From time to time and depending on the type of cooking activities, the filter unit has to be maintained, in particular by removing it through the opening in the worktop or a further opening in an appliance surface of the combination appliance and cleaning it from grease or other particles that have been filtered by the filter unit. In addition, such maintenance work may be performed via access from below the combination appliance or the like. Furthermore, if liquids, such as water, that are cooked on the cooking hob, unintentionally boil over or the like and are introduced into the extraction device through the opening formed in the worktop or the further opening in the appliance surface of the combination appliance, a so-called spillage collector or tank, which is configured to collect such spilled liquids, has to be removed, emptied, and cleaned in predetermined time intervals.

[0005] However, such removal and cleaning operations are of course time consuming and may be often perceived as annoying by a user of the combination appliance.

[0006] In addition, grease or other residues not filtered by the filter unit may also reach the fan unit, which may result in a reduced lifetime of the fan unit and the extraction device as a whole. Furthermore, if the filter unit and/or the fan unit becomes dirty, bad smells may be generated, as grease or the like may become rancid.

[0007] Thus, it is an object of the present invention to provide a combination appliance that remedies the above situation, in particular by making maintenance operations, such as cleaning operations, more comfortable for a user of the combination appliance and by improving

the lifetime of the combination appliance.

[0008] According to a first aspect of the present invention, this object is solved by a combination appliance of the above-mentioned type, which further comprises a fluid inlet port, which is configured to be connected to a fluid source, in particular a domestic water supply, and to supply fluid from the fluid source, and a fluid dispensing device, which is fluidically connected to the liquid inlet port, wherein the fluid dispensing device is configured to be operated at least in a fluid dispensing mode in which it is configured to dispense fluid towards the extraction device.

[0009] Preferably, the fluid dispensing device is further configured to be operated at least in a steam dispensing mode in which it is configured to dispense steam towards the extraction device.

[0010] Thus, according to the invention, the extraction device, in particular the fan unit and/or filter unit, may be cleaned via fluid cleaning, in particular steam cleaning, by operating the fluid dispensing device in the fluid dispensing mode, in particular the steam dispensing mode, in which, in particular hot and/or high pressure, fluid, preferably steam, such as water steam, is dispensed towards the extraction device. As a result, for example, the filter unit does not have to be removed at each time of cleaning, wherein, due to the use of, in particular hot and/or high pressure, fluid, preferably steam, a cleaning result may be even better than by the common manual cleaning that is often performed by using warm or hot water and optionally an additive such as soap. In addition, such better cleaning results may lead to an improved lifetime of the extraction device, in particular the filter unit and/or the fan unit.

[0011] The fluid, in particular the steam, may be particularly suitable for cleaning the extraction device but may be also used for other cooking purposes, such as by directing the fluid, in particular the steam, by a valve system of the combination appliance to a dedicated cooking device, in particular a steam cooking device, configured to be arranged on the cooking hob.

[0012] The fluid source may be a source configured to supply a liquid such as water. Furthermore, the fluid source itself may be configured to also supply, in particular hot and/or high pressure, fluid, preferably steam, for cleaning the extraction device and, if desired, other parts of the combination appliance.

[0013] If, on the other hand, the fluid source is only configured to supply liquid, for example cold water at or below room temperature, the combination appliance itself may be suitable to heat up the liquid to provide the fluid, preferably the steam, at a suitable temperature. In this context, the combination appliance may comprise an integrated steam generation unit or the like.

[0014] Furthermore, as it is common for combination appliances of the present type, the filter unit may comprise a filter carrier, preferably a grease filter carrier, and at least one filter, preferably a grease filter, which is configured to be carried by the filter carrier, wherein prefer-

ably the filter unit, in particular the filter carrier, is configured to be removable through the opening of the worktop. Thus, the filter unit may be even removed for maintenance operations different to cleaning. In this context, the filter unit may be arranged upstream the fan. However, according to an embodiment of the invention, the filter unit can be configured to use the fluid, such as a mist of, in particular cold, water and/or steam, provided by the fluid dispensing device as a filter medium. Thus, the filter unit does not have to be formed as a metal mesh filter or the like but may be also constituted by the filter medium dispensed by the fluid dispensing device for filtering dirty and/or smelly air.

[0015] To be able to initiate the cleaning operation, i. e. to operate the fluid dispensing device in the fluid dispensing mode, the combination appliance may comprise a corresponding user interface, such as a touch screen or the like, having at least one signal output that is connected to corresponding signal input of a control unit of the combination appliance.

[0016] After the cleaning operation has been completed, in general, it is possible to let the cleaned parts of the extraction device dry in the ambient air and/or supported by operating the fan unit. However, in particular if higher amounts of fluid, in particular steam, are to be used due to intensive cleaning, the combination appliance may comprise a drain port, which is configured to be connected to a drain system, in particular a domestic drain system, and to drain liquid or solid substances out of the extraction device. To enable reliably removing of cleaning fluid and other substances that might be removed during the cleaning operation, the drain port is preferably arranged on a lower side, i. e. on a bottom side, of the extraction device.

[0017] The drain system may be configured to be selectively in an opened state in which draining of liquid or solid substances out of the extraction device is allowed, and in a closed state in which draining of liquid or solid substances out of the extraction device is prevented. For this reason, the drain system may include a corresponding closure, such as a plug or the like. In general, it is possible that the drain system comprises collection container which is fluidically connected to the drain port and that may be emptied from time to time. However, to provide an even more comfortable solution in this regard, the drain system may be a domestic drain system that allows for continuously draining. In such a case the drain port may be connected to a drainage of a kitchen sink or the like, that, in use of the combination appliance, may be arranged adjacent the combination appliance.

[0018] To be able to not only emit steam, but also liquids, such as water, according to a preferred embodiment of the invention, the fluid dispensing device may be further configured to be operated in a liquid dispensing mode in which it is configured to dispense liquid, in particular water. Thus, it is possible for a user to fill cooking pots directly on the worktop, for example. In this context, it should be noted, that for filling cooking pots the fluid

dispensing device may be configured to be extractable beyond the worktop, e.g. by means of a pull-out hose with a corresponding nozzle or the like.

[0019] According to a further development of the latter embodiment, to ensure that the emitted liquid fulfills predetermined conditions, for example as to purity and/or lime content, the combination appliance may further comprise a liquid filtering unit having at least one liquid filtering input which is fluidically connected to the fluid inlet port and at least one liquid filtering output which is fluidically connected to the fluid dispensing device. The liquid filtering unit may be formed as a water filtering unit for example.

[0020] In addition or as an alternative, to be also able to infuse the liquid supplied by the fluid source with CO₂ to prepare beverages, such as sparkling water or the like, the combination appliance may further comprise a carbonation unit having at least one carbonation input which is connected to the fluid inlet port and at least one carbonation output which is fluidically connected to the fluid dispensing device.

[0021] Furthermore, to be able to emit the fluid, in particular the steam, preferably as a steam jet, having a predetermined direction and/or shape, the fluid dispensing device may comprise at least one fluid dispensing nozzle, wherein preferably the fluid dispensing nozzle may be arranged adjacent the extraction device, in particular the fan unit and/or the filter unit. Of course, the fluid dispensing device may also comprise a plurality of fluid dispensing nozzles preferably being arranged at different positions around the extraction device, in particular of the fan unit and/or the filter unit.

[0022] As already mentioned in the foregoing, the fluid source itself may be configured to supply hot fluid, preferably hot steam and/or hot liquid, such as water. However, to be able to heat up the fluid, such as water, directly in the appliance for preparing the steam and/or hot beverages or the like, the combination appliance may further comprise a heating unit associated with the fluid dispensing device and configured to heat up the fluid supplied by the fluid source.

[0023] According to a further embodiment, the extraction device may comprise a receiving container, in particular a funnel, which is arranged below the worktop on a bottom side of the extraction device, wherein preferably the receiving container is formed at least partly liquid tight with respect to an outside thereof. Thus, in addition to fluid cleaning, such as steam cleaning, it is also possible to fill a predetermined amount of a cleaning liquid, in particular water and optionally a cleaning additive, such as cleaning soap, into the mounting container to clean at least some parts of the extraction device, such as the filter unit and/or the fan unit.

[0024] Due to the fact that the fluid inlet port of the combination appliance is configured to be connected to the fluid source, fluid supplied by the fluid source may be also used for other purposes than the above-described ones. Thus, according to a further embodiment, the fluid

inlet port may be fluidically connected to a liquid cooling system of the combination appliance, which is configured to cool electronic parts of the combination appliance, in particular a power board of the cooking hob. Thus, as compared to known air cooling systems, an improved cooling performance may be achieved and/or the size of the power board may be reduced.

[0025] A further problem that arises during cooking activities is that garbage, such as of food leftovers, has to be collected in plastic bags or the like. Disposing of garbage via plastic bags is often not only tedious, but also harmful to the environment.

[0026] According to a second aspect, which preferably may be combined with the first aspect of the invention, the invention therefore provides a combination appliance of the above-mentioned type, which further comprises a shredding device which is arranged below the worktop and configured to shred non-liquid substances, such as kitchen garbage, in particular food leftovers, to be supplied through the or a further opening of the worktop or a further opening of an appliance surface of the combination appliance.

[0027] Thus, the non-liquid substances, such as kitchen garbage, may be shredded directly at the combination appliance and does not have to be disposed in large plastic bags or the like.

[0028] If the combination compliance also comprises the above mentioned drain port, the shredded garbage of reduced size may be disposed directly via the drain port. In this context it is preferred that the shredding device is arranged directly adjacent the drain port, so that garbage or the like that has been shredded by the shredding device will move towards and fit into an opening of the drain port. The movement of the garbage or the like may be preferably supported by the effect the above mentioned funnel, as the funnel may be inclined towards the drain port. Furthermore, the funnel may associated with a funnel heating element configured to heat up the funnel do avoid clogging of the drain system with grease or the like.

[0029] According to an embodiment the shredding device may a rotary shredding device. In a first alternative of this embodiment the rotary shredding device may configured to be driven by a fan motor of the fan unit. Thus is it is not required to design and arrange an additional motor for driving the shredding device. In a second first alternative of the latter embodiment, however, the rotary shredding device may be configured to be driven by a shredding motor which is separate from a fan motor of the fan unit.

[0030] If the shredding device is configured to be driven by the fan motor, the shredding device and the fan motor may be operatively connected by a suitable transmission unit and/or clutch unit.

[0031] To be able to reliably and sufficiently reduce the size of garbage to be shredded, the shredding device may comprise a shredding part, in particular a shredding blade. Furthermore, preferably the shredding part may

be integrally formed with a fan wheel of the fan unit.

[0032] In the following, a preferred embodiment of the present invention will be described in more detail with respect to the accompanying drawing, in which

Figure 1 is a schematic view of an embodiment of the combination appliance according to the invention.

[0033] In Figure 1, a combination appliance according to an embodiment of the invention is generally denoted by reference sign 10.

[0034] The combination appliance 10 comprises a cooking hob 12 which may be formed as an induction hob, for example. The cooking hob 12 according to the present embodiment comprises a worktop 14 in which an opening 16 is formed.

[0035] Below the worktop 14, there is arranged an extraction device 18 which comprises a fan unit 20 that, according to the present embodiment, comprises a fan wheel 22 which is configured to be rotatable around an axis of rotation R. For driving the fan wheel 22 around the axis of rotation R, the fan unit 20 comprises a fan motor 24 that may be formed as an electrical fan motor, for example.

[0036] Furthermore, the combination appliance 10 comprises a fluid inlet 26, which in the present embodiment is configured as an inlet that is suitable to supply water and/or steam. Therefore, the fluid inlet port is connected to a fluid source 28 that may be a domestic water supply and configured to deliver fluid, such as water and/or steam, to the fluid inlet port 26. To be able to dispense the fluid, towards the extraction device 20, for example, the combination appliance 10 further comprises a fluid dispensing device 30 that in the present embodiment comprises a fluid dispensing nozzle 32.

[0037] Thus, in use of the combination appliance 10, steam may be dispensed via the fluid dispensing nozzle 32 to clean the fan wheel 22 and/or a filter unit 33 that is configured to filter air sucked from an area above the cooking hob 12 via the fan wheel 22. In general, the filter unit may be formed as a metal mesh filter, for example. However, in the present embodiment, the filter unit 33 is configured to use the fluid, such as water and/or steam, dispensed by the fluid dispensing device 30 as a filter medium. Thus, the filter unit 33 does not have to be formed as a metal mesh filter or the like but is constituted by the filter medium dispensed by the fluid dispensing device 30.

[0038] In the present embodiment, the extraction device 18 comprises a receiving container, which is formed as a funnel 34, which is arranged below the worktop on bottom side of the extraction device 14. The funnel 34 is formed at least partly liquid-tight with respect to an outside thereof. Thus, in addition to steam cleaning, it is also possible to fill a predetermined amount of a cleaning liquid, such as water and optionally a cleaning additive, such as cleaning soap, into the receiving container to

clean parts of the extraction device 18 such as the fan wheel 22 of the fan unit 20.

[0039] To be able to reliably remove cleaning fluid and other substances that might be removed during the cleaning operation, the combination appliance 10 according to the present embodiment also comprises a drain port 36, which is configured to be connected to a drain system 38, such as a domestic drain system.

[0040] To also ensure that fluids, such as steam and/or water, that are dispensed via the fluid dispensing device 30, fulfill predetermined conditions, such as to purity and/or lime content, the combination appliance 10 according to the embodiment further comprises a liquid filtering unit 40 having at least one liquid-filtering input 40a and at least one liquid-filtering output 40b which is fluidically connected to the fluid dispensing device 30. To emit liquid for filling pots or to prepare beverages or the like, the fluid dispensing device 30 may further comprises a further fluid output 42 that may be arranged on or above the worktop 14 and configured to fluids, in particular liquids, such as water. The further fluid output 42 may also comprise a further fluid dispensing nozzle (not shown) and/or may be formed similar to a faucet or the like.

[0041] To be able to heat up the fluid, such as water, supplied from the fluid source 28 directly in the combination appliance 10, the combination appliance 10 may further comprise a heating unit 50 (as indicated by an arrow in Fig. 1) associated with the fluid dispensing device 30 and configured to heat up the fluid supplied by the fluid source 28.

[0042] The fluid supplied by the fluid source 28 may be also used for other purposes than the above-described ones. Thus, according to the present embodiment, the fluid inlet port 26 is also fluidically connected to a liquid cooling system 44 of the combination appliance 10, which is configured to cool electronic parts of the combination appliance 10, such as a power board (not shown) of the cooking hob 12.

[0043] To be able to dispose garbage arising during cooking activities, in particular garbage consisting of food leftovers or the like, the combination appliance 10 further comprises a shredding device 46 which is arranged below the worktop 14 and configured to shred non-liquid substances, such as kitchen garbage, to be supplied through the opening 16 of the worktop 14 or a further opening of an appliance surface of the combination appliance 10. In the present embodiment, the shredding device 46 is arranged directly adjacent to the drain port 36. The movement of garbage to be disposed may be preferably supported by the effect of the funnel that is inclined towards the drain port 36.

[0044] Furthermore, in the present embodiment, the shredding device 46 is configured to be driven by the fan motor 24 of the fan unit 20. Therefore, a shredding part in form of a shredding blade 48, is operatively connected to the fan motor 24. In the present embodiment, the shredding part 48 is integrally formed with the fan wheel 22 of the fan unit 20.

Claims

1. A combination appliance (10) comprising

a cooking hob (12), which comprises at least one worktop (14) having an opening (16) formed therein, and
an extraction device (18), which is arranged below the worktop (14) and comprises at least one fan unit (20) configured to suck air from an area above the cooking hob (12) through the opening (16) of the worktop (14), and at least one filter unit (33) configured to filter the air sucked by the fan unit (20),

characterized in that the combination appliance (10) further comprises:

a fluid inlet port (26), which is configured to be connected to a fluid source (28), in particular a domestic water supply (28), and to supply fluid from the fluid source (28), and
a fluid dispensing device (30), which is fluidically connected to the liquid inlet port (26), wherein the fluid dispensing device (30) is configured to be operated at least in a fluid dispensing mode in which it is configured to dispense fluid towards the extraction device (18).

2. The combination appliance according to claim 1, wherein the fluid dispensing device (30) is further configured to be operated at least in a steam dispensing mode in which it is configured to dispense steam towards the extraction device (18).

3. The combination appliance according to claim 1 or 2, further comprising a drain port (36), which is configured to be connected to a drain system (38), in particular a domestic drain system (38), and to drain liquid or solid substances out of the extraction device (18), the drain port (38) preferably being arranged on a lower side of the extraction device (18).

4. The combination appliance according to any of claims 1 to 3, wherein the fluid dispensing device (30) is further configured to be operated in a liquid dispensing mode in which it is configured to dispense liquid, in particular water.

5. The combination appliance according to claim 4, further comprising a liquid filtering unit (40) having at least one liquid filtering input (40a) which is connected to the fluid inlet port (26) and at least one liquid filtering output (40b) which is fluidically connected to the fluid dispensing device (30).

6. The combination appliance according to any of claims 1 to 5, wherein the fluid dispensing device (30) comprises at least one fluid dispensing nozzle (32).
7. The combination appliance according to claim 6, wherein the at least one fluid dispensing nozzle (32) is arranged adjacent the extraction device (30), in particular the fan unit (20) and/or the filter unit (33).
8. The combination appliance according to any of claims 1 to 7, wherein the filter unit (33) is configured to use the fluid, such as mist of water and/or steam, supplied by the fluid dispensing device (30) as a filter medium.
9. The combination appliance according to any of claims 1 to 8, further comprising a heating unit (50) associated with the fluid dispensing device (30) and configured to heat up the fluid supplied by the fluid source (28).
10. The combination appliance according to any of claims 1 to 9, wherein the extraction device (18) comprises a receiving container (34), in particular a funnel (34), which is arranged below the worktop (14) on a bottom side of the extraction device (18), wherein preferably the receiving container (34) is formed at least partly liquid tight with respect to an outside thereof.
11. The combination appliance according to any of claims 1 to 10, wherein the fluid inlet port (26) is fluidically connected to a liquid cooling system (44) of the combination appliance (10), which is configured to cool electronic parts of the combination appliance (10), in particular a power board of the cooking hob (12).
12. A combination appliance (10), in particular according to any of the preceding claims, comprising
- a cooking hob (12), which comprises at least one worktop (14) having an opening (16) formed therein, and
- an extraction device (18), which is arranged below the worktop (14) and comprises at least one fan unit (20) configured for sucking air from an area above the cooking hob (12) through the opening (16) of the worktop (14), and at least one filter unit (33) configured to filter the air sucked by the fan unit (20),
- characterized in that** the combination appliance (10) further comprises:
- a shredding device (46) which is arranged below the worktop (14) and configured to shred non-liquid substances, in particular garbage, to be supplied
- through the (16) or a further opening of the worktop (14) or a further opening of an appliance surface of the combination appliance (10).
13. The combination appliance according to claim 12, wherein the shredding device is a rotary shredding device (46), which is configured to rotate around an axis of rotation (R), wherein preferably
- the rotary shredding device (46) is configured to be driven by a fan motor (24) of the fan unit (20), or
- the rotary shredding device (46) is configured to be driven by a shredding motor which is separate from a fan motor (24) of the fan unit (20).
14. The combination appliance according to claim 12 or 13, wherein the shredding device (46) comprises a shredding part (48), in particular a shredding blade (48), wherein preferably the shredding part (48) is integrally formed with a fan wheel (22) of the fan unit (20).
15. The combination appliance according to claims 3 and 12, and optionally any of claims 4 to 11 and 13 to 14, wherein the shredding device (46) is arranged directly adjacent the drain port (36).

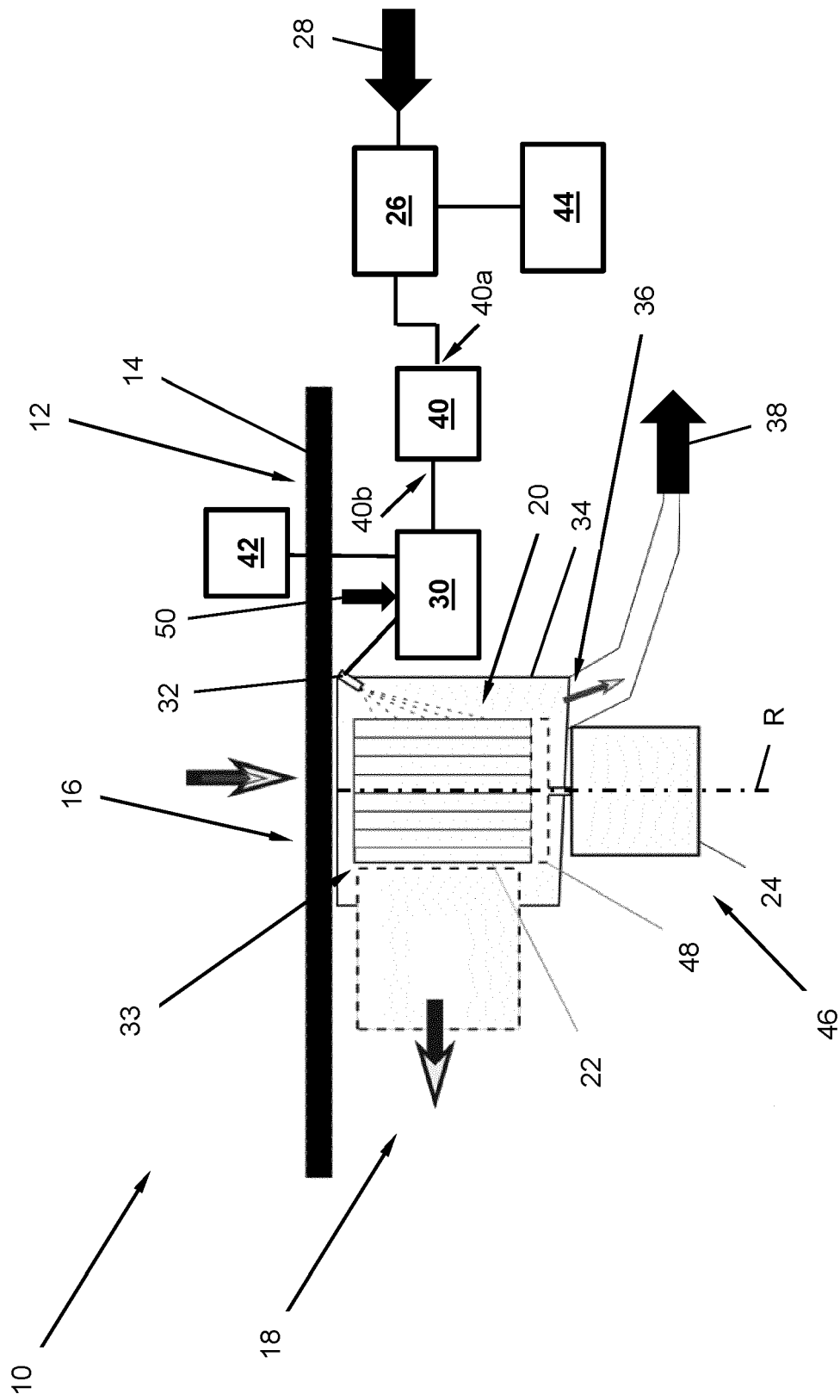


FIG. 1



EUROPEAN SEARCH REPORT

Application Number

EP 23 15 2152

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	US 2012/247345 A1 (CHIANG TING-FANG [TW]) 4 October 2012 (2012-10-04)	1, 3-5, 10, 11	INV. F24C14/00
Y	* figures 3, 5 *	2, 6-8	F24C15/20
X	EP 3 473 937 B1 (WESCO AG [CH]) 26 January 2022 (2022-01-26) * figure 1 *	1, 9	
Y	CN 109 700 300 A (FOSHAN SHUNDE MIDEA WASHING APPLIANCES MFG CO LTD) 3 May 2019 (2019-05-03) * claim 1 *	2	
Y	CN 111 473 384 A (FOSHAN SHUNDE MIDEA WASHING APPLIANCES MFG CO LTD) 31 July 2020 (2020-07-31) * figure 2 *	6, 7	
Y	US 4 071 019 A (KING ROY R) 31 January 1978 (1978-01-31) * claim 1; figure 2 *	8	
			TECHNICAL FIELDS SEARCHED (IPC)
			F24C
The present search report has been drawn up for all claims			

1

EPO FORM 1503 03.82 (P04C01)

Place of search	Date of completion of the search	Examiner
Munich	12 June 2023	Adant, Vincent
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document		



Application Number

EP 23 15 2152

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CLAIMS INCURRING FEES

The present European patent application comprised at the time of filing claims for which payment was due.

☐ Only part of the claims have been paid within the prescribed time limit. The present European search report has been drawn up for those claims for which no payment was due and for those claims for which claims fees have been paid, namely claim(s):

☐ No claims fees have been paid within the prescribed time limit. The present European search report has been drawn up for those claims for which no payment was due.

LACK OF UNITY OF INVENTION

The Search Division considers that the present European patent application does not comply with the requirements of unity of invention and relates to several inventions or groups of inventions, namely:

see sheet B

☐ All further search fees have been paid within the fixed time limit. The present European search report has been drawn up for all claims.

☐ As all searchable claims could be searched without effort justifying an additional fee, the Search Division did not invite payment of any additional fee.

☐ Only part of the further search fees have been paid within the fixed time limit. The present European search report has been drawn up for those parts of the European patent application which relate to the inventions in respect of which search fees have been paid, namely claims:

☒ None of the further search fees have been paid within the fixed time limit. The present European search report has been drawn up for those parts of the European patent application which relate to the invention first mentioned in the claims, namely claims:

1-11, 15

☐ The present supplementary European search report has been drawn up for those parts of the European patent application which relate to the invention first mentioned in the claims (Rule 164 (1) EPC).

**LACK OF UNITY OF INVENTION
SHEET B**

Application Number

EP 23 15 2152

The Search Division considers that the present European patent application does not comply with the requirements of unity of invention and relates to several inventions or groups of inventions, namely:

1. claims: 1-11, 15

**Combination appliance with fluid dispensing towards the
extraction device**

2. claims: 12-14

Combination appliance comprising a sheredding device

ANNEX TO THE EUROPEAN SEARCH REPORT ON EUROPEAN PATENT APPLICATION NO.

EP 23 15 2152

5 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 The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

12-06-2023

10	Patent document cited in search report	Publication date	Patent family member(s)	Publication date
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EPO FORM P0459

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