

(19)



(11)

EP 4 060 195 A1

(12)

EUROPEAN PATENT APPLICATION

(43) Date of publication:

21.09.2022 Bulletin 2022/38(21) Application number: **21163030.6**(22) Date of filing: **17.03.2021**

(51) International Patent Classification (IPC):

F04D 17/16 ^(2006.01) **A47J 43/04** ^(2006.01)**B65B 31/04** ^(2006.01) **F04D 19/04** ^(2006.01)**F04D 29/60** ^(2006.01)

(52) Cooperative Patent Classification (CPC):

F04D 17/168; A47J 43/04; B65B 31/047;**F04D 19/04; F04D 29/601**

(84) Designated Contracting States:

**AL AT BE BG CH CY CZ DE DK EE ES FI FR GB
GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO
PL PT RO RS SE SI SK SM TR**

Designated Extension States:

BA ME

Designated Validation States:

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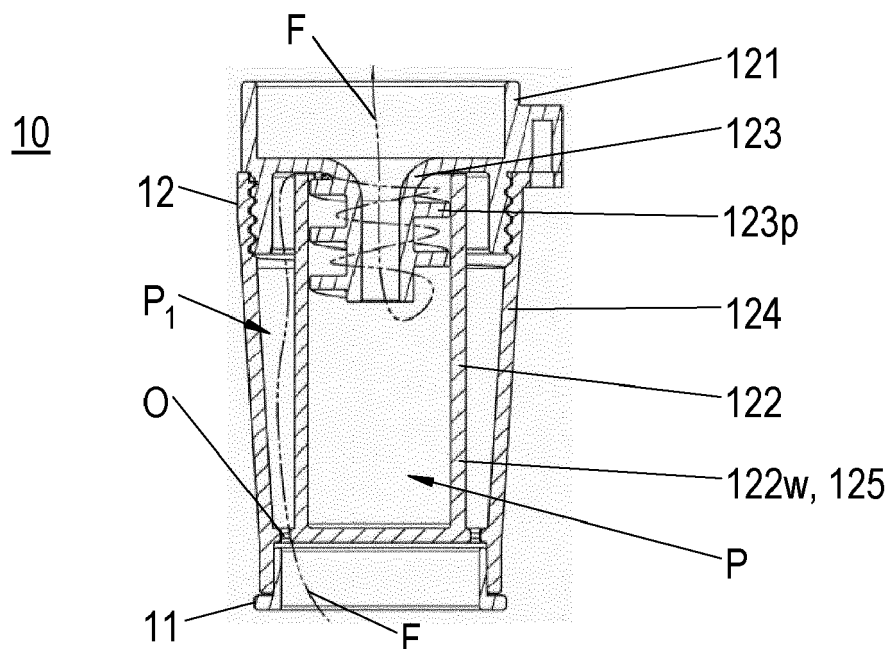
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(54) KITCHEN APPLIANCE, ASSEMBLY AND ACCESSORY THEREFOR

(57) Disclosed is an accessory 10, 10', 10", 10''', 10'''' for a kitchen appliance comprising a power unit 20, 20''' with a vacuum pump. The accessory is connected or connectable with the vacuum pump and comprises a mouth element 11, 11', 11", 11''', 11'''' configured to be joined to an object a vacuum is to be applied to. Moreover, the accessory comprises a transition portion 12, 12', 12'', 12''', 12'''' configured to conduct air pumped, in operation

of the vacuum pump, from said object through said mouth element to the vacuum pump. The transition portion 12, 12', 12'', 12''', 12'''' is at least partially transparent.

Further disclosed are an assembly comprising at least one such accessory 10, 10', 10", 10''', 10'''' and a power unit 20, 20'''. Moreover, a kitchen appliance comprising such assembly and at least one tool is disclosed.

Fig. 2:**EP 4 060 195 A1**

Description

[0001] The present invention concerns an accessory for a kitchen appliance comprising a vacuum sealer. Moreover, the present invention concerns an assembly comprising such accessory and a power unit with a vacuum pump. Furthermore, the present invention concerns kitchen appliance comprising such assembly.

[0002] Modern kitchen appliances sometimes comprise a vacuum pump to be connected with a respective object (such as a food container or bag) to which vacuum is to be applied. Therewith, the respective kitchen appliance can be provided with an additional function of a vacuum sealer, configured to apply a vacuum to the respective object. The vacuum may then increase a storage life of a respective content (such as a comestible) of the object. In the following, "applying vacuum to an object" is further referred to also as "vacuumizing the object".

[0003] It is an object of the present invention to facilitate improvement of kitchen appliances comprising a vacuum pump. It is a further object to provide such improved kitchen appliance.

[0004] The objects are achieved by an accessory according to claim 1, by an assembly according to claim 11 and by a kitchen appliance according to claim 12. Advantageous embodiments are disclosed in the dependent claims, the description and the figures.

[0005] An accessory according to the present invention is an equipment for a kitchen appliance (in particular for a hand-held kitchen appliance), the kitchen appliance comprising a power unit with a vacuum pump.

[0006] The accessory according to the present invention is connected or connectable with the vacuum pump, and it comprises a mouth element (forming an orifice) configured to be joined to a respective object to be vacuumized, i.e., to which vacuum is intended to be applied to. The mouth element may at least partially be made of silicone and/or a rubber material, for instance.

[0007] The accessory further comprises a transition portion configured to conduct air which in operation of the vacuum pump is pumped (sucked) from said object towards the vacuum pump. The transition portion is at least partially transparent.

[0008] Due to the transparency, the transition portion of the accessory according to the present invention permits a view into an interior of the transition portion. Therewith, a user is enabled to monitor at least a portion of a path the air or accidentally other material is sucked along, from the object towards the vacuum pump; such other material may comprise moisture or particles flowing along with the sucked air, or liquid and/or small-sized content of the object to be vacuumized which may inadvertently be sucked out of the object, e.g., when at least most of the air has been extracted therefrom. As such material may impair the vacuum pump, the user recognising it may stop operation of the vacuum pump for protection thereof. The present invention thus provides for an increased safety and durability of the vacuum pump.

[0009] The transparency of the transition portion may be provided in at least one window the transition portion may include, or the transition portion may be entirely transparent. The transition portion may be at least partially made of transparent plastics (in particular acrylic, polycarbonate and/or polyethylene, for instance) and/or of glass.

[0010] The transition portion may serve as a spacer between the respective object (to be vacuumized) and the vacuum pump, thus increasing a distance therebetween and, thereby, providing additional time for a user to stop the vacuum pump.

[0011] According to advantageous embodiments, the transition piece may contain a tubular (preferably cylindrical) piece; a centre axis thereof preferably extends along a designated sucking direction, i.e., a direction in which during utilisation of the accessory air may flow due to the operation of the vacuum pump. For a length L of such tubular piece (measured along a/the centre axis thereof) and a diameter D (measured orthogonally to the centre axis) $L \geq 1.2D$ or $L \geq 1.5D$ or even $L \geq 1.7D$ may preferably hold true. Said tubular piece may include at least a portion having a rotationally symmetric shape (with respect to a/the centre axis).

[0012] The transition portion may advantageously comprise at least one collection receptacle configured to collect liquid possibly sucked out of the object, such as liquid carried (e.g., as moisture) with the respectively conducted air, and/or liquid (inadvertently) sucked instead of air. By means of such collection receptacle, the liquid is prevented to leak and/or to spatter around during operation of the vacuum pump.

[0013] In such embodiments, the at least partial transparency of the transition portion preferably may provide a view into the at least one collection receptacle; in particular, the at least one collection receptacle (i.e., a wall thereof) may preferably be at least partially transparent. Thereby, a user is enabled to monitor a filling level of the at least one collection receptacle, such that he can stop operation of the vacuum pump when the filling level has reached a predetermined limit. The accessory may comprise a visual indicator such as a marking line and/or a marking point to indicate said limit.

[0014] Additionally or alternatively, the accessory may comprise a floater configured to swim on liquid eventually contained in the at least one collection receptacle. In particular, the floater may be movable relative to the mouth element. Therein, its position (relative to the mouth element) may be dependent on an amount of said liquid.

[0015] Preferably, the floater is configured to obstruct an intake of the power unit, in particular of the vacuum pump, when the accessory is connected therewith and when the collection receptacle contains a predetermined amount of liquid. By contrast, at least when the power unit and has an orientation designated for operation thereof, the floater

preferably releases the intake unless said predetermined amount has been reached. Therein, the power unit may be devised to absorb an air flow from the accessory to the vacuum pump through the intake (when the accessory is connected therewith).

[0016] Accordingly, in such embodiments, when the accessory is attached to the power unit and has an orientation designated for operation thereof, the floater unblocks a passage through the accessory (in particular a passage from the transition portion to the vacuum pump through the intake) and thus allows pumped air to pass therethrough unless the collection receptacle contains a predetermined amount of liquid, and the floater blocks the passage if the collection receptacle contains said predetermined amount of liquid. Thereby, the floater provides a safety means preventing liquid entering the vacuum pump even if a user oversees a need of stopping operation thereof.

[0017] To obstruct the intake (thus, to block said passage), the floater may be configured to abut, due to buoyancy of the swimming floater, against a power unit surface (e.g., a surface of the vacuum pump) containing said intake.

[0018] According to advantageous embodiments of the present invention, the accessory comprises a combination ring. Therewith, the accessory may be durably or detachably connected or connectable with the vacuum pump. The combination ring may include connection means, such as means of a press fit/ tight fit and/or of a frictional connection.

[0019] In embodiments comprising both such combination ring and at least one collection receptacle as mentioned above, the collection receptacle may be detachably combinable or detachably combined with the combination ring, such as by means of a screw coupling and/or a bayonet coupling. Therewith, an easy emptying of the collection receptacle may be possible without detaching the combination ring from the power unit.

[0020] The transition portion may preferably contain direction means configured perturb a flow of air being sucked (in use of the accessory and operation of the vacuum pump) through the transition portion; in particular, the direction means thus is configured to at least once change a direction of the flowing air. Such change of direction promotes moisture carried with the air to deposit on an inner surface of the transition portion, and thereby, inhibits that the moisture enters the vacuum pump.

[0021] For instance, such direction means may form a labyrinth, and/or it may comprise a portion configured to direct the sucked air along a screwed path, in particular along a helix; additionally or alternatively, the direction means may comprise at least a section configured to direct the air sucked through the transition portion (transiently) away from the vacuum pump.

[0022] In particular, the direction means may be configured to whirl the air flow (of sucked air). Thereby, a cyclonic effect may be provoked in the air flow, which may dry the air and remove dust particles eventually carried by the air.

[0023] In respective embodiments comprising a floater as mentioned above, said direction means may at least partially be provided by said floater.

[0024] In respective embodiments comprising a combination ring as described above, said direction means may at least partially be connected to the combination ring. In particular, the combination ring and at least a part of the direction means may be (integrally) formed as a single (common) monolithic piece.

[0025] In respective embodiments comprising at least one collection receptacle as mentioned above, in particular a wall thereof may serve as said direction means.

[0026] According to advantageous embodiments of the present invention, the accessory forms a first passage and, separated therefrom by a partition wall, a second passage, wherein in operation, the air pumped (sucked) from the object to the vacuum pump (and conducted by the transition portion) flows through the first passage before flowing through the second passage. Thereby, a path along which the air is conducted by the transition piece may be enlarged.

[0027] In respective embodiments comprising direction means as mentioned above, at least a portion thereof may be formed by said partition wall.

[0028] The first passage may at least partially surround at least a section of the second passage, and/or the second passage may at least partially surround at least a section of the first passage. Thereby, said path may be formed particularly large while at the same time the accessory may remain compact.

[0029] Preferably, in embodiments in which the transition portion further comprises at least one collection receptacle as detailed above, at least a portion of the first and/or of the second passage may be included in the collection receptacle/ a respective one of the collection receptacles. In particular, a wall of the at least one collection receptacle may at least partially form the partition wall separating the first passage from the second passage.

[0030] An assembly according to the present invention comprises a power unit of a kitchen appliance, the power unit comprising a vacuum pump. The assembly further comprises at least one accessory according to an embodiment of the present invention; in case of various accessories, these may be according to different or the same embodiment/s. Therein, the power unit is compatible with the accessory/accessories, i.e., the vacuum pump is connected or connectable therewith (e.g., by means of a press fit/ tight fit and/or of a frictional connection).

[0031] The vacuum pump may be durably fixed or detachably fixable to a drive component of the power unit; such drive component, which may comprise an electric motor, may be configured to drive the vacuum pump, and/or may be combinable with and/or configured to drive one or more further components (such as a tool for treating food) additionally or alternatively to the vacuum pump.

[0032] A kitchen appliance according to the present invention comprises an assembly according to an embodiment of the present invention, and at least one tool for treating food. Therein, the power unit comprises a drive component configured to drive the tool. The at least one tool may include a rotatable knife assembly and/or an agitator, for instance.

[0033] According to advantageous embodiments of the present invention, the kitchen appliance may be a hand-held kitchen appliance. In particular, it may comprise a hand blender or a hand mixer.

[0034] In the following, advantageous embodiments of the present invention are explained with respect to the accompanying drawings. As is to be understood, the various elements and components are depicted as examples only, may be facultative and/or combined in a manner different than that depicted. Reference signs for related elements are used comprehensively and not defined again for each figure.

[0035] Shown is schematically in

Fig. 1: an assembly according to an exemplary embodiment of the present invention in a perspective view, with a power unit and, attached thereto, an accessory;

Fig. 2: the accessory of Figure 1 in a cross section with indicated air flow;

Fig. 3a - 3c: alternative embodiments of accessories according to the present invention in cross section;

Fig. 4: an assembly according to a further exemplary embodiment of the present invention in a perspective view, with a power unit and, attached thereto, an accessory;

Fig. 5a: the accessory of Figure 4 detached from the power unit in a perspective view;

Fig. 5b: the accessory of Figures 4 and 5a in a cross section;

Fig. 6a: a cross section of the accessory of Figures 4, 5a, 5b attached to the power unit and with the floater in a first position; and

Fig. 6b: a cross section of the accessory of Figures 4, 5a, 5b, 6a attached to the power unit and with the floater in a second position.

[0036] In Figure 1, an exemplary embodiment of an assembly 1 according to the present invention is shown in perspective view. The assembly comprises an exemplary embodiment of an accessory 10 according to the present invention, and a power unit 20 of a kitchen appliance according to the present invention.

[0037] The power unit 20 comprises a vacuum pump 21 and a drive component 22 including an electric motor (not visible) configured to drive the vacuum pump 21. In the example shown in Figure 1, the vacuum pump 21 is detachable from the drive component 22. A tool (not shown) such as a rotatable knife assembly and/or an agitator may be attachable, alternatively to the vacuum pump 21, to the drive component 22. The drive component 22 then preferably is adapted to also drive the tool. In particular, in this case, the kitchen appliance comprises a hand blender, with at least the drive component 22 forming part thereof.

[0038] In the situation depicted in Figure 1, the accessory 10 is attached to the power unit 20; in particular, the accessory is connected with the vacuum pump 21.

[0039] The accessory 10 comprises a ring-shaped mouth element 11 to be joined to an object (in particular to a valve preferably comprised by or attachable to the object) a vacuum is to be applied to. Moreover, the accessory 10 comprises a transition portion 12.

[0040] As is seen in more detail in Figure 2, the transition portion 12 comprises a combination ring 121 for connecting the accessory 10 with the vacuum pump 21 (as shown in Figure 1), such as by means of a tight fit (press fit).

[0041] Further indicated in Figure 2 is an air flow F occurring when the accessory 10 is used: The such flowing air enters the accessory 10 through the mouth element 11 and then and is conducted, by the transition portion 12, through a first passage P_1 before flowing through a second passage P_2 . Therein, direction means 123 of the accessory 10 are configured to change a direction of the air flow F, i.e., of the air sucked through the transition portion 12. In the exemplary embodiment shown in Figure 2, the direction means 123 comprises a portion 123p directing the air along a screwed path, in particular along a helix. Thereby, a cyclonic effect is provoked in the flowing air, as indicated in Figure 2, which cyclonic effect may slow down and dry the air, and which also may clear the air from dust particles eventually carried therewith. Moreover, in the present case, the portion 123p further is a section (of the direction means 123) directing the air flow F away from the (not shown) vacuum pump.

[0042] In the exemplary embodiment shown in Figure 2, the direction means 123 and the combination ring 121 form part of an integral, monolithic piece.

[0043] Moreover, the second passage P_2 of the exemplary accessory 10 shown in Figure 2 is enclosed by a cylindrically shaped collection receptacle 122 configured to collect liquid which may be sucked out of the object, e.g., liquid carried with the respectively conducted air and/or liquid inadvertently sucked out of the object instead of air.

[0044] In the present case, a wall 122w of the collection receptacle 122 provides a partition wall 125 separating the first passage P_1 from the second passage P_2 . In particular, the first passage P_1 radially surrounds the collection receptacle 122 and, therewith, the second passage P_2 .

[0045] A screw coupling of the combination ring 121 and an outer wall 124 of the transition portion 12 permits separation of the outer wall 124 - and, therewith, of the collection receptacle 122 - from the combination ring 121. Thereby, an easy emptying of the collection receptacle 122 is facilitated.

[0046] According to the present invention, the transition portion 12 is at least partially transparent. For example, it may include one or more transparent window(s), or it may be entirely made of a transparent material. In particular, the transition portion 12 may at least partially be made of a transparent plastic (such as acrylic (plexiglass), polycarbonate and/or polyethylene, for instance) and/or glass.

[0047] Preferably, the transparency of the transition portion 12 facilitates a view into the collection receptacle 122. As a consequence, a user can monitor a filling level (not shown) of the collection receptacle 122, such that he can stop operation of the vacuum pump and/or empty the collection receptacle 122 in case the filling level of the collection receptacle 122 has reached a predetermined limit. Thereby, the liquid can be prevented to enter the vacuum pump and to thereby impair the vacuum pump.

[0048] In Figures 3a - 3c, respective accessories 10', 10'', 10''' according to further exemplary embodiments of the present invention are shown in cross section and with respective air flows F occurring during utilisation of the respective accessory.

[0049] Further to the respective mouth elements 11', 11'', 11''', the accessories 10', 10'', 10''' each comprise a respective at least partially transparent, rotational symmetric transition portion 12', 12'', 12'''. For a length L (measured along a centre axis X) and a diameter D (measured orthogonally to the length) of the respective transition portions 12', 12'', 12''', the relation $L \geq 1.5D$, even $L \geq 1.7D$ holds true; to simplify the figures, said dimensions are indicated only in Figure 3a. Due to said relation, the air flow F is given an advantageous length for releasing moisture and/or dust particles eventually carried with the air flow, and for giving a user time to react, so as to stop the vacuum pump when liquid might be about to enter it.

[0050] The transition portion 12' shown in Figure 3a is shaped as a tubular piece serving as a spacer between the respective object (to be vacuumized) and the vacuum pump (not shown), thus increasing a distance therebetween and, thereby, providing additional time for a user to stop the vacuum pump. Therein, at least a portion of the outer wall 124' of the transition portion 12' is preferably transparent, allowing a user to observe whether material (such as liquid and/or particles) is carried with the air flow F, which may make such stop of the vacuum pump advisable.

[0051] As indicated in Figures 3b, 3c, in utilisation of the respective accessory 10'', 10''', an air flow F of air pumped through the respective mouth element 11'', 11''' to the (not shown) vacuum pump flows through a respective first passage P_1 and, thereafter, through a respective second passage P_2 . The first passage P_1 is separated from the second passage P_2 by a respective partition wall 125'', 125''' including holes H allowing the conducted air to pass from the first passage P_1 into the second passage P_2 .

[0052] In the embodiments of Figures 3b, 3c, the partition walls 125'', 125''' are formed by respective receptacle walls 122''w, 122'''w partially delimiting a respective collection receptacle 122'', 122''' configured to collect liquid possibly sucked out of the object, such as liquid carried with the respectively conducted air, i.e., with the air flow F, and/or liquid inadvertently sucked instead of air.

[0053] Respective outer walls 124'', 124''' of the accessories 10'', 10''' delimit the receptacles 122'', 122''' radially outwards (with regard to a respective centre axis X of the accessories). Preferably, the outer walls 124'', 124''' are at least partially transparent, thus providing a view into the receptacles 122'', 122''', such that a user can monitor a filling level thereof as mentioned above.

[0054] In the embodiment shown in Figure 3b, the partition wall 125'' is conically shaped and narrows in direction away from the mouth element 11''. Thereby, the partition wall 125'' provides direction means 123'' configured to disturb the airflow F, in particular to at least once change a direction of the pumped air conducted by the transition portion.

[0055] In the embodiment depicted in Figure 3c, the partition wall 125''' comprises a cylindrical portion and, at an end thereof, a conical portion narrowing in direction away from the mouth element 11. In this case, the conical portion thus provides direction means 123''' which in utilisation of the accessory 10''' disturbs the air flow F, in particular by at least once changing a direction thereof.

[0056] The disturbance of the air flow respectively slows down the air flow, possibly clears it from dust particle eventually carried therewith, and increases deposition of moisture, thus liquid, on respective inner surfaces of the accessories 10'', 10'''. The deposited liquid may then slip along the respective surface to a bottom of the respective collection receptacle 122'', 122''' (and in case of the accessory 10''' shown in Figure 3c, to a ground of the first passage P_1). Thereby, in particular, the vacuum pump is protected from being impaired by entering material.

[0057] In Figure 4, an assembly 1st according to another embodiment of the present invention is shown in perspective view. The assembly comprises a power unit 20st (with a vacuum pump 21st and a drive component 22st) and an accessory 10st according to a further embodiment of the present invention. Also in this example, the power unit 20st and the accessory 10st form part of a kitchen appliance comprising a hand blender. In the situation depicted in Figure 4, a tool (not shown) such as a rotatable knife assembly or an agitator preferably further comprised by the kitchen appliance is detached from the drive component 22st, allowing attachment of the vacuum pump 21st and the accessory 10st instead.

[0058] Figure 5a shows the accessory 10st (separated from the power unit 20st) in a perspective view, and Figure 5b provides a cross sectional view of the accessory 10st which comprises a mouth element 11st to be joined to a (not shown) object a vacuum is to be applied to, and a transition portion 12st including a combination ring 121st for (detachable or durable) connection of the accessory 10st with the vacuum pump 21st, e.g. by means of a tight fit (press fit).

[0059] The transition portion 12st comprises a first collection receptacle 122sta and a second collection receptacle 122stb each configured to collect liquid sucked out of the object to be vacuumized. An outer wall 124st of the transition portion 12st forms a wall of the second collection receptacle 122stb and is at least partially transparent. Thereby, a user is enabled to monitor a filling level of the second collection receptacle 122stb, and to stop operation of the power unit 20st (in particular, of the vacuum pump thereof) when the filling level has reached a predetermined limit, which may be indicated by a sign (not shown) preferably marked on the transition portion 12st, in particular on the outer wall 124st. Additionally, a receptacle wall 122stw delimiting both the first and the second collection receptacles (and separating them) may preferably be at least partially transparent. Thereby, the user can control also the filling level of the first collection receptacle 122sta.

[0060] The accessory 10st shown in Figures 5a, 5b (and also, in Figures 4, 6a, 6b) further comprises a floater 126st. The floater 126st is movable relative to the mouth element 11st and configured swim on liquid eventually contained in the collection receptacles 122sta, 122stb. When the content thereof reaches a predetermined level, the floater is moved, by buoyancy force, to a position in which it blocks a passage through accessory, in particular through the transition portion and to the vacuum pump.

[0061] This is shown in more detail in Figures 6a, 6b showing the accessory 10st attached to the power unit 20st in cross sectional views and in an orientation designated for use.

[0062] In Figure 6a, a situation is depicted in which the power unit 20st (along with the accessory 10st) is in an orientation designated for operation, and the floater 126st is most close to the mouth element 11st, which in the present case is determined by the receptacle wall 122stw. In this situation, when the accessory is connected with the (not shown) vacuum pump and the vacuum pump is operated, an air flow F is generated: The air flow F passes through the mouth piece 11st into a first passage P₁, then is directed, by the floater 126st serving as a direction means 123st disturbing the air flow F, into a second passage P₂ before finally flowing through an intake I of the power unit 20st to the (not shown) vacuum pump. In the present case, the receptacle wall 122stw serves as a partition wall 125st separating the first passage P₁ from the second passage P₂.

[0063] Liquid (not shown in Figure 6a) accidentally being sucked, from the object to be vacuumized into the accessory 10st, can accumulate in the first collection receptacle 122sta including the first passage P₁. A further operation of the vacuum pump may then cause a liquid level in the first collection receptacle 122sta to be raised; in particular, further liquid may be sucked from the object to be vacuumized into the accessory 10st. The liquid may thus fill also the second collection receptacle 122sta. When the liquid thus has reached a predetermined level, it raises the floater 126st due to buoyancy.

[0064] In such manner, in the situation shown in Figure 6b, the floater 126st has been moved, by the liquid Q, to a second position, in which the floater 126st closes the intake I and thus blocks a passage from the transition portion 12st to the vacuum pump. As a consequence, in spite of the (high) filling level of the collection receptacle, the liquid is prevented to proceed to the vacuum pump, even if a user does not actively stop operation of the vacuum pump. Thus, the floater 126st provides for additional safety of the power unit.

[0065] Disclosed is an accessory 10, 10', 10", 10st, 10st for a kitchen appliance comprising a power unit 20, 20st with a vacuum pump. The accessory is connected or connectable with the vacuum pump and comprises a mouth element 11, 11', 11", 11st, 11st configured to be joined to an object a vacuum is to be applied to. Moreover, the accessory comprises a transition portion 12, 12', 12", 12st, 12st configured to conduct air pumped, in operation of the vacuum pump, from said object through said mouth element to the vacuum pump. The transition portion 12, 12', 12", 12st, 12st is at least partially transparent.

[0066] Further disclosed are an assembly comprising at least one such accessory 10, 10', 10", 10st, 10st and a power unit 20, 20st. Moreover, a kitchen appliance comprising such assembly and at least one tool is disclosed.

Reference signs

[0067]

1, 1'" assembly

10, 10', 10", 10"', 10''' accessory

11, 11', 11", 11"', 11''' mouth element

5 12, 12', 12", 12"', 12''' transition portion

20 power unit

21 vacuum pump

22 drive component

10

121, 121'" combination ring

122, 122", 122"', 122'''a, 122'''b collection receptacle

122w, 122"w, 122"'w, 122'''w receptacle wall

123, 123", 123"', 123''' direction means

15 123p portion/section of direction means

124, 124', 124", 124"', 124''' outer wall of transition portion

125, 125", 125"', 125''' partition wall

126''' floater

20 D diameter

F air flow

H hole

I intake

L length

25 O opening

P₁ first passage

P₂ second passage

Q liquid

X centre axis

30

Claims

35 1. Accessory (10, 10', 10", 10"', 10''') for a kitchen appliance comprising a power unit (20, 20''') with a vacuum pump, wherein the accessory is connected or connectable with the vacuum pump and comprises

- a mouth element (11, 11', 11", 11"', 11''') configured to be joined to an object a vacuum is to be applied to, and
- a transition portion (12, 12', 12", 12"', 12''') configured to conduct air pumped, in operation of the vacuum pump, from said object through said mouth element to the vacuum pump,

40 wherein the transition portion (12, 12', 12", 12"', 12''') is at least partially transparent.

2. Accessory according to claim 1, wherein the transition portion (12, 12', 12", 12"', 12''') comprises at least one collection receptacle (122, 122", 122"', 122'''a, 122'''b) configured to collect liquid sucked out of the object.

45 3. Accessory according to claim 2, further comprising a floater (126''') configured to swim on liquid eventually contained in the collection receptacle (122'''a, 122'''b).

50 4. Accessory according to claim 3, wherein the floater (126''') is configured to obstruct an intake of the power unit when the accessory is connected with the vacuum pump and when the collection receptacle (122'''b) contains a predetermined amount of liquid (Q).

55 5. Accessory according to one of claims 2 to 4, wherein the transition portion (12, 12', 12", 12"', 12''') comprises a combination ring (121, 121''') for connecting the accessory with the vacuum pump, wherein the collection receptacle (122, 122", 122"', 122''') is detachably combined or detachably combinable with the combination ring (121, 121''').

6. Accessory according to one of the preceding claims, wherein the transition portion contains direction means (123, 123", 123"', 123''') configured to disturb a flow of pumped air the transition portion is configured to conduct.

7. Accessory according to claim 6, wherein the direction means (123, 123", 123'", 123''') comprises

- at least a section (123p, 123'') configured to direct the pumped air away from the vacuum pump; and/or
- at least a portion (123p) configured to direct the air along a screwed path.

8. Accessory according to one of the preceding claims, which forms a first passage (P_1) and a second passage (P_2) and which includes at least one partition wall (125, 125", 125'", 125''') separating the first and the second passage from each other, wherein pumped air the transition portion is configured to conduct, in operation of the vacuum pump, flows through the first passage (P_1) before flowing through the second passage (P_2).

9. Accessory according to claim 8, wherein

- the second passage (P_2) partially or entirely surrounds at least a section of the first passage (P_1); and/or
- the first passage (P_1) partially or entirely surrounds at least a section of the second passage (P_2).

10. Accessory according to one of claims 8 or 9 with the additional features of claim 2, wherein the at least one collection receptacle (122, 122", 122'", 122''''a, 122''''b) includes at least a part of the first passage (P_1) and/or of the second passage (P_2).

11. Assembly (1, 1'') comprising at least one accessory (10, 10', 10", 10'", 10''') according to one of the preceding claims, and a power unit (20, 20'') of a kitchen appliance with a vacuum pump (21, 21'), the power unit being compatible with the accessory.

12. Kitchen appliance comprising an assembly (1, 1'') according to claim 11 and at least one tool compatible with the power unit (20, 20'').

Fig. 1:

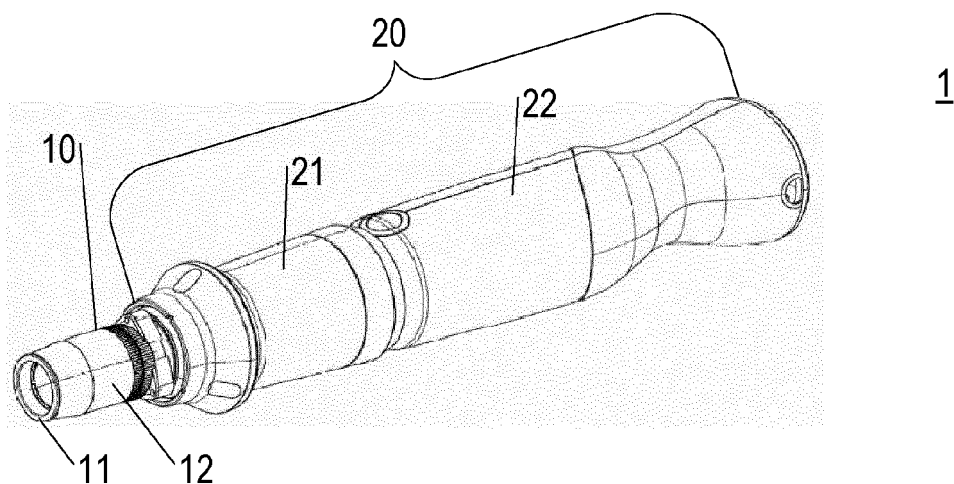


Fig. 2:

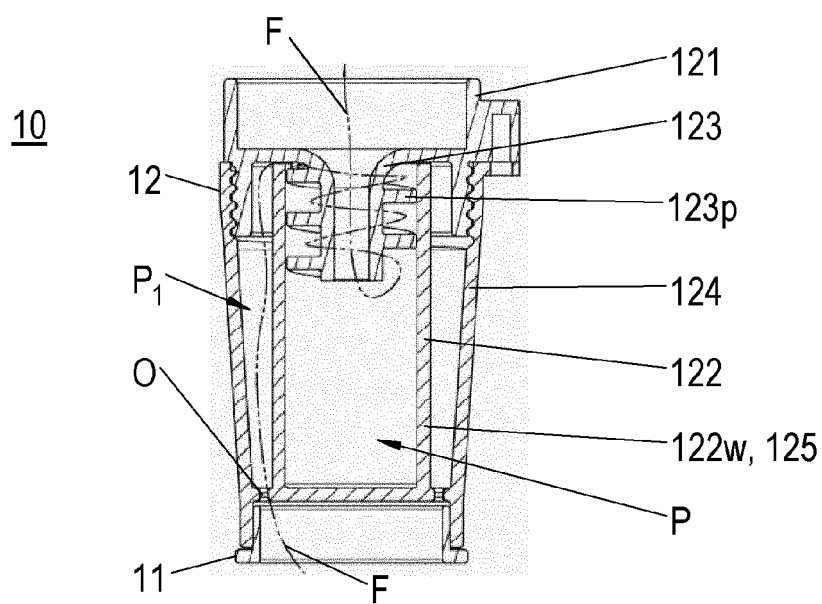


Fig. 3a:

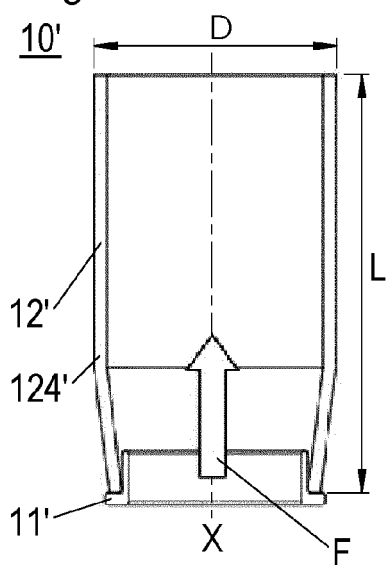


Fig. 3b:

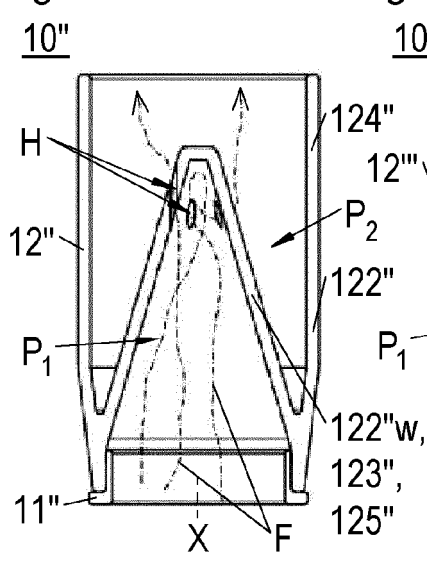


Fig. 3c:

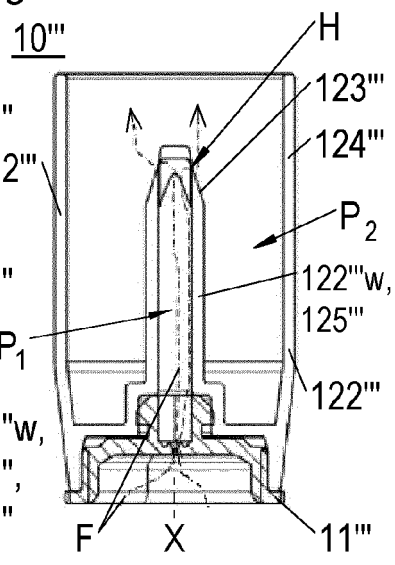


Fig. 4:

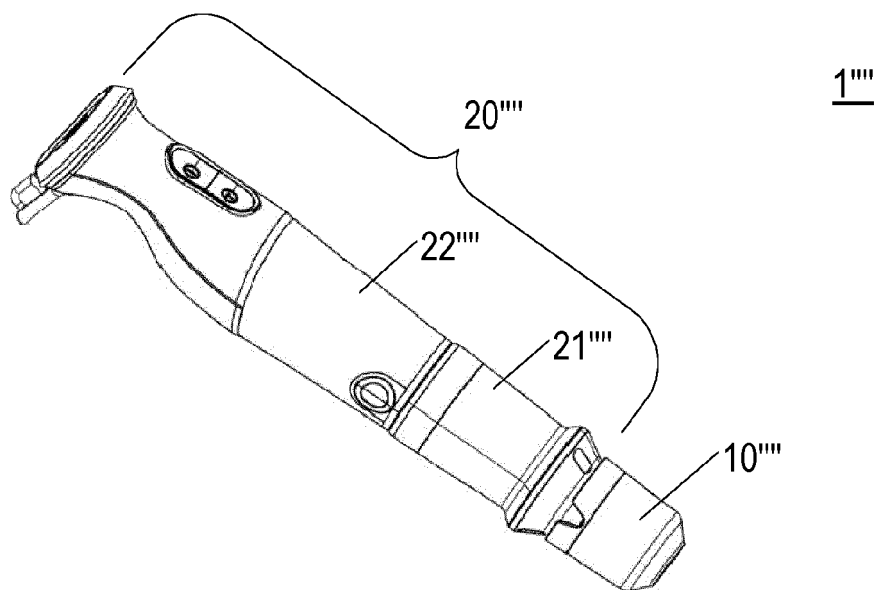


Fig. 5a:

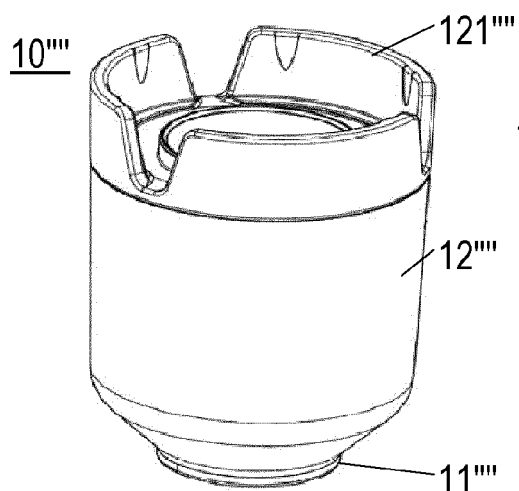


Fig. 5b:

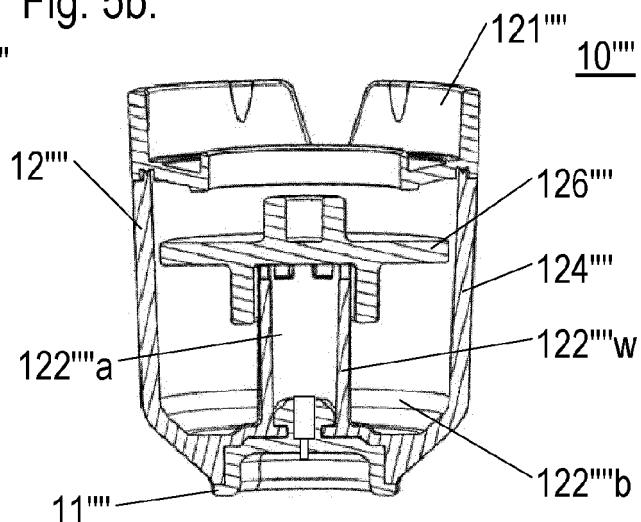


Fig. 6a:

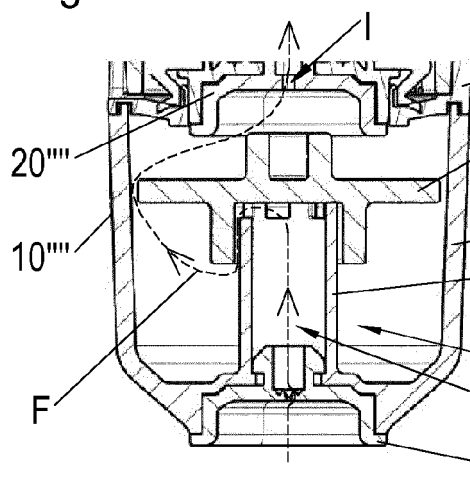
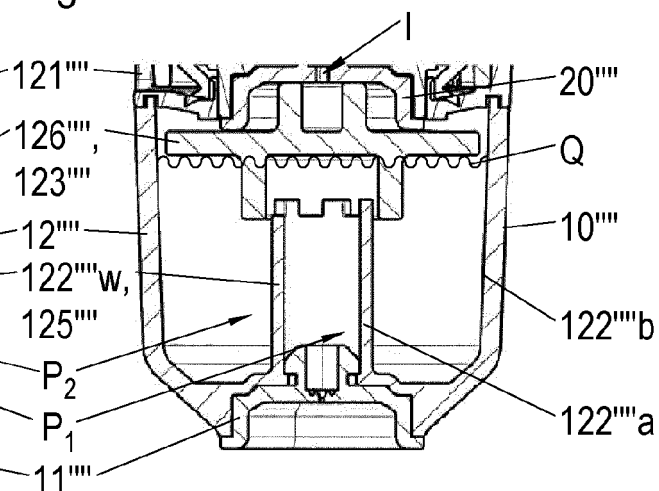


Fig. 6b:





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