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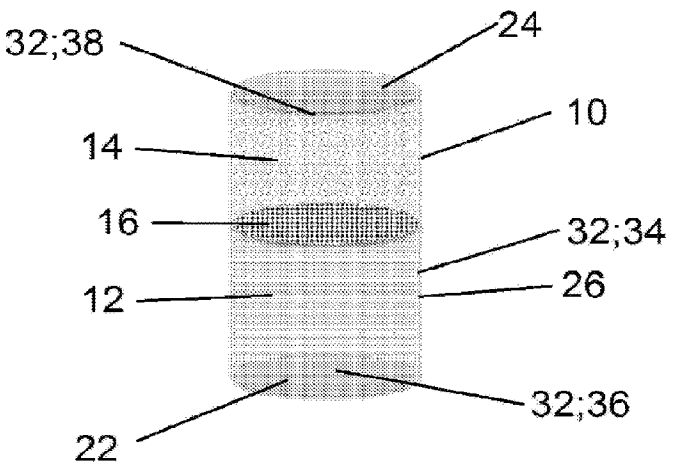

FIG. 2

(57) Abrégé/Abstract:
A consumable part (10) for use in an aerosol provision system. The consumable part (10) comprises a first reservoir (12) for containing aerosolisable material, and a second reservoir (14) for containing flavouring material. The consumable part (10) also comprises an aerosolisable material transport element (16) for receiving the aerosolisable material from the first reservoir (12). The aerosolisable material transport element (16) at least partly separates the first reservoir (12) from the second reservoir (14), and the aerosolisable material transport element (16) is configured to deliver vaporised aerosolisable material into the second reservoir (14).

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Abstract:

A consumable part (10) for use in an aerosol provision system. The consumable part (10) comprises a first reservoir (12) for containing aerosolisable material, and a second reservoir (14) for containing flavouring material. The consumable part (10) also comprises an aerosolisable material transport element (16) for receiving the aerosolisable material from the first reservoir (12). The aerosolisable material transport element (16) at least partly separates the first reservoir (12) from the second reservoir (14), and the aerosolisable material transport element (16) is configured to deliver vaporised aerosolisable material into the second reservoir (14).

AEROSOL PROVISION SYSTEM

Field

The present disclosure relates to aerosol provision systems such as, but not limited to, nicotine delivery systems (e.g. electronic cigarettes and the like).

Background

Electronic aerosol provision systems such as electronic cigarettes (e-cigarettes) generally contain aerosolisable material, such as a reservoir of fluid or liquid containing a formulation, typically but not necessarily including nicotine, or a solid material such a tobacco-based product, from which a vapour/aerosol is generated for inhalation by a user, for example through heat vaporisation. Thus, an aerosol provision system will typically comprise a vaporiser, e.g. a heating element, arranged to vaporise a portion of aerosolisable material to generate a vapour.

Once a vapour has been generated, the vapour may be passed through flavouring material to add flavour to the vapour, after which the (flavoured) vapour may be then delivered to a user via a mouthpiece from the aerosol provision system.

A potential drawback of existing aerosol provision systems is that the aerosolisable material and the flavouring material may be provided in differing amounts as part of different consumables. That being the case, there is the potential for one of the aerosolisable material or the flavouring material to run out or become depleted whilst the other material is still in plentiful supply. A further potential drawback of existing aerosol provision systems is that they may not be the most compact, and/or environmentally friendly.

It is common for aerosol provision systems to comprise a modular assembly, often having two main functional parts, namely a control unit and disposable / replaceable consumable part.

Various approaches are described herein which seek to help address or mitigate some of the issues discussed above.

Summary

According to a first aspect of certain embodiments there is provided a consumable part for use in an aerosol provision system, wherein the consumable part comprises:

a first reservoir for containing aerosolisable material;

a second reservoir for containing flavouring material; and

an aerosolisable material transport element for receiving the aerosolisable material from the first reservoir,

wherein the aerosolisable material transport element at least partly separates the first reservoir from the second reservoir, and wherein the aerosolisable material transport element is configured to deliver vaporised aerosolisable material into the second reservoir.

According to a second aspect of certain embodiments there is provided an aerosol provision system comprising the consumable part according to the first aspect, and a device which is configured to releasably engage with the consumable part, wherein the device comprises a vaporiser for generating a vapour from the aerosolisable material in the aerosolisable material transport element.

It will be appreciated that features and aspects of the invention described above in relation to the various aspects of the invention are equally applicable to, and may be combined with, embodiments of the invention according to other aspects of the invention as appropriate, and not just in the specific combinations described herein.

Brief Description of the Drawings

Embodiments of the invention will now be described, by way of example only, with reference to the accompanying drawings, in which:

Figure 1A schematically represents a consumable part, for use in an aerosol provision system, in accordance with certain embodiments of the disclosure.

Figure 1B schematically represents a top end view of a consumable part in accordance with certain embodiments of the disclosure.

Figure 1C schematically represents a bottom end view of a consumable part in accordance with certain embodiments of the disclosure.

Figure 2 schematically represents a consumable part, for use in an aerosol provision system, in accordance with certain embodiments of the disclosure.

Figure 3 schematically represents a consumable part, for use in an aerosol provision system, in accordance with certain embodiments of the disclosure.

Figure 4A schematically shows a device, for use with embodiments of consumable part as described herein, to define an aerosol provision system in accordance with certain embodiments of the disclosure.

Figure 4B schematically shows the aerosol provision system of Figure 4A, when the device is releasably attached to the consumable part, in accordance with certain embodiments of the disclosure.

Figure 5A schematically shows a device, for use with embodiments of consumable part as described herein, to define an aerosol provision system in accordance with certain embodiments of the disclosure.

Figure 5B schematically shows the aerosol provision system of Figure 5A, when the device is releasably attached to the consumable part, in accordance with certain embodiments of the disclosure.

Detailed Description

Aspects and features of certain examples and embodiments are discussed / described herein. Some aspects and features of certain examples and embodiments may be implemented conventionally and these are not discussed / described in detail in the interests of brevity. It will thus be appreciated that aspects and features of apparatus and methods discussed herein which are not described in detail may be implemented in accordance with any conventional techniques for implementing such aspects and features.

The present disclosure relates to non-combustible aerosol provision systems, which may also be referred to as aerosol provision systems, such as e-cigarettes. According to the present disclosure, a "non-combustible" aerosol provision system is one where a constituent aerosolisable material of the aerosol provision system (or component thereof) is not combusted or burned in order to facilitate delivery to a user. Aerosolisable material, which also may be referred to herein as aerosol generating material or aerosol precursor material, is material that is capable of generating aerosol, for example when heated, irradiated or energized in any other way.

Throughout the following description the term "e-cigarette" or "electronic cigarette" may sometimes be used, but it will be appreciated this term may be used interchangeably with aerosol provision system / device and electronic aerosol provision system / device. An electronic cigarette may also known as a vaping device or electronic nicotine delivery system (END), although it is noted that the presence of nicotine in the aerosolisable material is not a requirement.

In some embodiments, the non-combustible aerosol provision system is a hybrid system to generate aerosol using a combination of aerosolisable materials, one or a plurality of which may be heated. In some embodiments, the hybrid system comprises a liquid or gel aerosolisable material and a solid aerosolisable material. The solid aerosolisable material may comprise, for example, tobacco or a non-tobacco product.

Typically, the non-combustible aerosol provision system may comprise a consumable part and a device which is configured to releasably engage with the consumable part.

The aerosol provision system may be provided with a means for powering a vaporiser therein, and there may be provided an aerosolisable material transport element for receiving the aerosolisable material that is to be vaporised. The aerosol provision system may also be provided with a reservoir for containing aerosolisable material, and in some embodiments a further reservoir for containing flavouring material for flavouring a generated vapour from the aerosol provision system.

In some embodiments, the vaporiser may be a heater/heating element capable of interacting with the aerosolisable material so as to release one or more volatiles from the aerosolisable material to form a vapour/aerosol. In some embodiments, the vaporiser is capable of generating an aerosol from the aerosolisable material without heating. For example, the vaporiser may be capable of generating a vapour/aerosol from the aerosolisable material without applying heat thereto, for example via one or more of vibrational, mechanical, pressurisation or electrostatic means.

In some embodiments, the substance to be delivered may be an aerosolisable material which may comprise an active constituent, a carrier constituent and optionally one or more other functional constituents.

The active constituent may comprise one or more physiologically and/or olfactory active constituents which are included in the aerosolisable material in order to achieve a physiological and/or olfactory response in the user. The active constituent may for example be selected from nutraceuticals, nootropics, and psychoactives. The active constituent may be naturally occurring or synthetically obtained. The active constituent may comprise for example nicotine, caffeine, taurine, theine, a vitamin such as B6 or B12 or C, melatonin, a cannabinoid, or a constituent, derivative, or combinations thereof. The active constituent may comprise a constituent, derivative or extract of tobacco or of another botanical. In some embodiments, the active constituent is a physiologically active constituent and may be selected from nicotine, nicotine salts (e.g. nicotine ditartrate/nicotine bitartrate), nicotine-free tobacco substitutes, other alkaloids such as caffeine, or mixtures thereof.

In some embodiments, the active constituent is an olfactory active constituent and may be selected from a "flavour" and/or "flavourant" which, where local regulations permit, may be used to create a desired taste, aroma or other somatosensorial sensation in a product for adult consumers. In some instances such constituents may be referred to as flavours, flavourants, flavouring material, cooling agents, heating agents, and/or sweetening agents. They may include naturally occurring flavour materials, botanicals, extracts of botanicals, synthetically obtained materials, or combinations thereof (e.g., tobacco, cannabis, licorice (liquorice), hydrangea, eugenol, Japanese white bark magnolia leaf, chamomile, fenugreek,

clove, maple, matcha, menthol, Japanese mint, aniseed (anise), cinnamon, turmeric, Indian spices, Asian spices, herb, wintergreen, cherry, berry, red berry, cranberry, peach, apple, orange, mango, clementine, lemon, lime, tropical fruit, papaya, rhubarb, grape, durian, dragon fruit, cucumber, blueberry, mulberry, citrus fruits, Drambuie, bourbon, scotch, whiskey, gin, tequila, rum, spearmint, peppermint, lavender, aloe vera, cardamom, celery, cascarilla, nutmeg, sandalwood, bergamot, geranium, khat, naswar, betel, shisha, pine, honey essence, rose oil, vanilla, lemon oil, orange oil, orange blossom, cherry blossom, cassia, caraway, cognac, jasmine, ylang-ylang, sage, fennel, wasabi, piment, ginger, coriander, coffee, hemp, a mint oil from any species of the genus Mentha, eucalyptus, star anise, cocoa, lemongrass, rooibos, flax, ginkgo biloba, hazel, hibiscus, laurel, mate, orange skin, rose, tea such as green tea or black tea, thyme, juniper, elderflower, basil, bay leaves, cumin, oregano, paprika, rosemary, saffron, lemon peel, mint, beefsteak plant, curcuma, cilantro, myrtle, cassis, valerian, pimento, mace, damien, marjoram, olive, lemon balm, lemon basil, chive, carvi, verbena, tarragon, limonene, thymol, camphene), flavour enhancers, bitterness receptor site blockers, sensorial receptor site activators or stimulators, sugars and/or sugar substitutes (e.g., sucralose, acesulfame potassium, aspartame, saccharine, cyclamates, lactose, sucrose, glucose, fructose, sorbitol, or mannitol), and other additives such as charcoal, chlorophyll, minerals, botanicals, or breath freshening agents. They may be imitation, synthetic or natural ingredients or blends thereof. They may be in any suitable form, for example, liquid such as an oil, solid such as a powder, or gasone or more of extracts (e.g., licorice, hydrangea, Japanese white bark magnolia leaf, chamomile, fenugreek, clove, menthol, Japanese mint, aniseed, cinnamon, herb, wintergreen, cherry, berry, peach, apple, Drambuie, bourbon, scotch, whiskey, spearmint, peppermint, lavender, cardamom, celery, cascarilla, nutmeg, sandalwood, bergamot, geranium, honey essence, rose oil, vanilla, lemon oil, orange oil, cassia, caraway, cognac, jasmine, ylang-ylang, sage, fennel, piment, ginger, anise, coriander, coffee, or a mint oil from any species of the genus Mentha), flavour enhancers, bitterness receptor site blockers, sensorial receptor site activators or stimulators, sugars and/or sugar substitutes (e.g., sucralose, acesulfame potassium, aspartame, saccharine, cyclamates, lactose, sucrose, glucose, fructose, sorbitol, or mannitol), and other additives such as charcoal, chlorophyll, minerals, botanicals, or breath freshening agents. They may be imitation, synthetic or natural ingredients or blends thereof. They may be in any suitable form, for example, oil, liquid, or powder.

In some embodiments, the flavouring material (flavour) may comprise menthol, spearmint and/or peppermint. In some embodiments, the flavour comprises flavour components of cucumber, blueberry, citrus fruits and/or redberry. In some embodiments, the flavour comprises eugenol. In some embodiments, the flavour comprises flavour components

extracted from tobacco. In some embodiments, the flavour may comprise a sensate, which is intended to achieve a somatosensorial sensation which are usually chemically induced and perceived by the stimulation of the fifth cranial nerve (trigeminal nerve), in addition to or in place of aroma or taste nerves, and these may include agents providing heating, cooling, tingling, numbing effect. A suitable heat effect agent may be, but is not limited to, vanillyl ethyl ether and a suitable cooling agent may be, but not limited to eucalyptol, WS-3.

The carrier constituent may comprise one or more constituents capable of forming an aerosol. In some embodiments, the carrier constituent may comprise one or more of glycerine, glycerol, propylene glycol, diethylene glycol, triethylene glycol, tetraethylene glycol, 1,3-butylene glycol, erythritol, meso-Erythritol, ethyl vanillate, ethyl laurate, a diethyl suberate, triethyl citrate, triacetin, a diacetin mixture, benzyl benzoate, benzyl phenyl acetate, tributyrin, lauryl acetate, lauric acid, myristic acid, and propylene carbonate.

The one or more other functional constituents may comprise one or more of pH regulators, colouring agents, preservatives, binders, fillers, stabilizers, and/or antioxidants.

As noted above, aerosol provision systems (e-cigarettes) often comprise a modular assembly including both a reusable part (device) and a replaceable consumable (cartridge) part. Devices conforming to this type of two-part modular configuration may generally be referred to as two-part devices. It is also common for electronic cigarettes to have a generally elongate shape. For the sake of providing a concrete example, certain embodiments of the disclosure described herein comprise this kind of generally elongate two-part device employing consumable parts. However, it will be appreciated the underlying principles described herein may equally be adopted for other electronic cigarette configurations, for example modular devices comprising more than two parts, as devices conforming to other overall shapes, for example based on so-called box-mod high performance devices that typically have a more boxy shape.

From the forgoing therefore, and with reference to Figures 1A-1C, there is shown a consumable part 10, for use in an aerosol provision system, in accordance with certain embodiments of the disclosure. Terms concerning the relative location of various aspects of the consumable part 10 (e.g. terms such as upper, lower, above, below, top, bottom etc.) are used herein with reference to the orientation of the consumable part 10 as shown in Figures 1A-1C (unless the context indicates otherwise). However, it will be appreciated this is purely for ease of explanation and is not intended to indicate there is any required orientation for the consumable part 10 in use.

With the above in mind, Figures 1A-1C illustrates the consumable part 10, which comprises a first reservoir 12 for containing aerosolisable material; and a second reservoir 14 for

containing flavouring material. Notionally, the first reservoir 12 may be at least partly separated from the second reservoir.

In accordance with some embodiments, the consumable part 10 may comprise an aerosolisable material transport element 16 for receiving the aerosolisable material from the first reservoir 12, wherein the aerosolisable material transport element 16 is configured to deliver vaporised aerosolisable material, using the aerosolisable material deriving from the first reservoir 12, into the second reservoir 14. With reference to the embodiment shown in Figures 1A-1C, the aerosolisable material transport element 16 may comprise any material that can effectively draw aerosolisable material from the first reservoir therein, for vaporising in the aerosolisable material transport element 16 as will be described. In that respect for instance, and in accordance with some embodiments, the aerosolisable material transport element 16 may comprise a wick, such as in some particular embodiments a mesh; a cotton wick and/or a wick made of another fibrous material(s), i.e. a fibrous wick.

In accordance with some embodiments, such as those shown in Figures 1A-1C, the aerosolisable material transport element 16 may at least partly separate the first reservoir 12 from the second reservoir 14. In such arrangements therefore, both the first reservoir 12 (for containing the aerosolisable material), and the second reservoir 14 (for containing the flavouring material) are located in the same consumable part 10, which helps to keep the consumable part 10 (and any aerosol provision system in which it is used) more compact. Through appropriate sizing of the first and second reservoirs 12;14 as well, placing both the first and second reservoir 12;14 in the same consumable part 10 can assist with better ensuring that the aerosolisable material and the flavouring material run out at the same time.

In that regard as well, it has been found that flavouring material from the second reservoir 14 may deplete at a quicker rate than the rate of depletion of any aerosolisable material in the first reservoir 12. That being the case, and in accordance with some embodiments, the first reservoir 12 may be sized to contain, and/or may comprise, a first predetermined amount of aerosolisable material, and the second reservoir 14 may be sized to contain, and/or may comprise, a second predetermined amount of flavouring material, such that during the operation of the consumable part, the first predetermined amount of aerosolisable material and the second predetermined amount of flavouring material may be configured to be depleted at the same time. In that regard therefore, and in accordance with some embodiments, the second reservoir 14 may comprise a larger volumetric capacity than the volumetric capacity of the first reservoir 12. As to an approximate size for the first and second reservoir 12;14, in accordance with some embodiments, the first reservoir and/or second reservoir 12;14 may comprise a volumetric capacity which is no more than 10 ml, no more than 5ml, and/or no more than 2ml. Such capacities are particularly suited in more

portable/handheld embodiments where the consumable part is intended to be used in portable/handheld aerosol provision system.

From the foregoing therefore, described is a consumable part 10 for use in an aerosol provision system which conveniently contains both the first reservoir 12 and the second reservoir 14 in the same consumable part.

As will be described, during the operation of the consumable part 10, aerosolisable material from the first reservoir 12 is ultimately configured to be turned into a vapour by some sort of vaporiser. In accordance with some embodiments, the vaporiser may be (permanently) located in the consumable part 10, such as in some particular embodiments located next to, or near, any aerosolisable material transport element 16 located in the consumable part 10. In other embodiments however, the vaporiser 102 may form part of a device 100 to which the consumable part 10 is releasably engageable with (e.g. as will be described, and as is shown, with reference to the embodiments shown in Figures 4A-4B and/or Figures 5A-5B). That being the case, and in accordance with some embodiments, the consumable part 10 may be provided with a first access port 18 for allowing access to the first reservoir 12 (as illustrated in the embodiment of Figure 1C). The exact type/structure of the first access port 18 may appreciably vary depending on the intended application of the consumable part 10. For instance, in accordance with some embodiments, the first access port 18 may comprise a valve (such as in some particular embodiments thereof a duckbill valve, a one-way valve, and/or a ball valve) for better allowing fluid to only pass into, but not out from, the first reservoir 12. In some embodiments, the first access port 18 may comprise a pierceable membrane (which might comprise a film, and/or possibly made of any combination of paper/cardboard/plastic/metal). In this way, when the piereceable membrane is pierced, the first access port 18 may be irreversibly opened, such that the first access port is single-use.

Turning to the second reservoir 14, and in accordance with some embodiments, the consumable part may comprise a second access port 20 for allowing access to the second reservoir 14. As with any present first access port 18, the exact type/structure of the second access port 20 may vary depending on the intended application of the consumable part 10. For instance, in accordance with some embodiments, the second access port 20 may comprise a valve (such as in some particular embodiments thereof a duckbill valve, a one-way valve, and/or a ball valve) for better allowing fluid (such as flavoured vapour) to only pass out-from, but not into from, the second reservoir 14. In some embodiments, the second access port 20 may comprise a pierceable membrane. In this way, when the piereceable membrane is pierced, the second access port 20 may be irreversibly opened, such that the second access port 20 is single-use.

In terms of the geometry for the consumable part 10, it will be appreciated that this may be varied depending on the application of the consumable part 10. In accordance with some embodiments however, which may assist with providing a generally compact arrangement for the consumable part, and which may be better shaped to be more easily handled, the consumable part may comprise a first end 22, and a second end 24 opposite the first end 22, wherein the first reservoir 12 is located closer to the first end 22 than the second end 24, and wherein the second reservoir 14 is located closer to the second end 24 than the first end 22. Equally/alternatively, in accordance with some embodiments (such as those shown in Figures 1A-1C and Figure 2), the consumable part may define a cylindrical and/or elongate shape.

In accordance with some embodiments, such as those shown in Figures 1A-1C, where the consumable part comprises the first end 22 and the second end 24, in some particular embodiments thereof, any first access port 18 may be conveniently located at the first end 22. Equally/alternatively, the second access port 20 may be located at the second end 24. In this way, the first and second access ports 18;20 may be suitably disposed away from each other, to help reduce any interference therebetween. For the sake of completeness however, it will be appreciated that any provided first access port need not expressly be located at a first end 22, nor must any second access port 20 necessarily be located at a second end 24 of the consumable part. In that respect, in accordance with some embodiments, any provided first access port 18 might equally be located as part of a housing 26 of the consumable part, which houses the first reservoir 12 and the second reservoir 14, and might be in fluid communication with first reservoir 12. Equally, where such a housing 26 is employed, any provided second access port 20 may in accordance with some embodiments be located as part of the housing 26 and in fluid communication with the second reservoir 14. From the foregoing therefore, it will be appreciated that depending on how any first access port 18 and second access port 20 are arranged (e.g. about the first end 22, the second end 24, and the housing 26), in accordance with some embodiments, the first access port may be parallel with the second access port (as shown in the embodiments of Figures 1A-1C) or may be inclined at an angle to, or be perpendicular to, the second access port 20.

As described above, in accordance with some embodiments, the consumable part may comprise a housing 26 in which the first reservoir 12 and the second reservoir 14 are located. Where such a housing is provided 26, the first end 20 and the second 22 may be located at either end of the housing 26. The aerosolisable material transport element 16, where present, may be attached to the housing 26, such as in some particular embodiments by a fastening means and/or by an adhesive. In some embodiments, to help reduce the overall number of components in the consumable part 10, the aerosolisable material

transport element 16 may be moulded as part of the housing so as to reduce the overall number of components in the consumable part 10.

With respect to the materials used in the consumable part, it is envisaged that the material may vary depending on the application of the consumable part. In some embodiments, the first end 22; the second end 24; the first access port 18; the second access port 20; and/or the housing 26 may be made of any combination of paper, cardboard, plastic and/or silicone. Where a plastic or silicone is used, this may make the consumable part more rigid and weather resistant. Though in accordance with some, more environmentally friendly, embodiments, conveniently one or more of the above components from the consumable part may be made of paper and/or cardboard.

In that respect therefore, and in a particular embodiment, there may be provided a consumable part 10 for use in an aerosol provision system, wherein the consumable part 10 comprises: the first reservoir 12 for containing aerosolisable material; the second reservoir 14 for containing flavouring material; wherein the first reservoir 12 and the second reservoir 14 are located within a housing 26 of the consumable part 10, wherein the housing 26 is made of paper or cardboard.

Particularly in embodiments where at least a portion 10 of the consumable part is made of paper and/or cardboard, such as the embodiment shown in Figure 2, in accordance with some embodiments thereof, to further improve the integrity of the consumable part 10 from moisture damage, the first reservoir 12 and/or the second reservoir 14 may comprise a fluid resistant coating/layer 32. In some particular embodiments thereof, such a fluid resistant coating or fluid resistant layer 32 may be provided on an interior surface 34 of the housing 26, an interior surface 36 of the first end 22 (or the first reservoir 12), and/or an interior surface 38 of the second end 24 (or the second reservoir 14).

Alternatively/additionally in accordance with some embodiments, the first reservoir 12 may comprise at least one interior resilient bag 40, which is configured to accommodate the aerosolisable material whilst it is in the first reservoir 12, and which is open at (and thus in fluid communication with) the aerosolisable material transport element 16. Such an embodiment comprising the at least one interior resilient bag 40 is shown in the embodiment of Figure 3. In such embodiments, any provided housing 26 may better shield the resilient bag 40 from accidental knocks and/or perforations. Tying in with the above, where at least resilient bag 40 is provided, the bag(s) may define a recess 41 which is configured to accommodate a vaporiser 102 when the consumable part 100 is in use, as will be better explained with reference to the embodiments shown in Figures 4A-4B and Figures 5A-5B. Thus in accordance with these embodiments, when the consumable part 10 is in use, the

resilient bag 40 may be configured to act as a separating member 42 for better ensuring that the vaporiser 102 vaporises aerosolisable material located in the aerosolisable material transport element 16 rather than aerosolisable material from the first reservoir 12. For the sake of completeness, it will be appreciated that other forms of separating member 42 may be employed, other than the use of a resilient bag(s) 40 for inhibiting the vaporiser 102 from vaporising aerosolisable material located in the first reservoir 12. In that respect for instance, the separating member 42 in accordance with some embodiments may comprise a partitioning wall between the recess 41 and the first reservoir 12.

From the foregoing therefore, there has been described various embodiments of consumable part 10 which are intended to provide aerosolisable material from the first reservoir 12 therefrom, to the second reservoir 14 in which is provided a vapour that is then configured to be flavoured using the flavouring material in the second reservoir 14, for delivering the flavoured vapour to a user for inhalation.

With the above in mind, and turning to Figures 4A-4B, the embodiments of consumable part 10 described herein have applications for use with a device 100 from an aerosol provision system, as will now be described. In that respect therefore, described herein is also an aerosol provision system comprising the consumable part 10 as described in any of the above embodiments, and a device 100 which is configured to releasably engage with the consumable part 10, wherein the device 100 comprises a vaporiser 102 for generating a vapour from the aerosolisable material in the aerosolisable material transport element 16.

The device 100 as described above may comprise a number of different shapes and sizes, depending on the embodiment. In accordance with some embodiments, the device 100 may be portable and/or handheld (such as the embodiment shown in Figures 4A and 4B), and/or may comprise a recess or slot 104 for releasably accommodating the consumable part 10. In accordance with some embodiments, the device 100 may comprise a lid portion 106 for holding the consumable part 100 in the recess or slot 104 when the consumable part 10 is in use. Such a latter embodiment is illustrated in the embodiment of Figures 5A-5B.

Whatever the principal construction of the device 100, where the device 100 comprises the vaporiser 102, the vaporiser 102 may be configured to be inserted into the first reservoir 12 for generating the vapour from the aerosolisable material in the aerosolisable material transport element 16 (as shown with reference to the embodiments illustrated at Figures 4B and Figures 5B). In some particular embodiments, to help better locate the vaporiser 102 proximal the aerosolisable material transport element 18 when the consumable part 10 is in use, the vaporiser 102 may be located on a probe 108 which is configured to be inserted, through the first access port 18, into the first reservoir 12 for generating the vapour from the

aerosolisable material in the aerosolisable material transport element 16. In a particular embodiment, the vaporiser may be located at least partially at a tip 109 of the probe 108, to maximise the proximity of the vaporiser 102 to any aerosolisable material transport element 18 located in the consumable part.

As part of any operation of the device 100, there may also be provided an air inlet channel 111 in the device 100 which is configured to supply air into the consumable part 10. In accordance with some embodiments, the air inlet channel 111 may be at least partly located as part of a probe which is configured to be inserted into the first reservoir 12. In that respect, and in accordance with some embodiments, said probe may be the probe 108, with the air inlet channel 111 at least partly extending through the probe 108, as shown for instance in the embodiment of Figures 4A and 4B. Appreciably, any provided probe in which the air inlet channel 111 is at least partly located need not necessarily be the probe 108. In that respect, any such probe which is configured to be inserted into the first reservoir 12 could instead represent a second probe (not shown in the Figures) which is separate to, and/or independently operated from, the probe 108.

For the sake of completeness as well, it will be appreciated that any provided air inlet channel 111 need not necessarily be located as part of a probe which is configured to be inserted into the first reservoir 12. Indeed, the air inlet channel 111 from the device 100 could be configured in a number of different ways such that is configured to allow air to enter the consumable part 10 when the device 100 is engaged with the consumable part 10. In that respect for instance, in accordance with some very particular embodiments, the air inlet channel 111 from the device 100 may comprise a valve which is configured to open to allow air to enter the consumable part 10 when the device 100 is engaged with the consumable part 10. Equally in accordance with some embodiments, the consumable part 10 may comprise an air inlet port which is configured to for operating, and/or aligning with, the air inlet channel 111 from the device 100 when the device 100 is engaged with the consumable part 10

In accordance with some embodiments, any provided probe 108 may comprise a seal 110 for engaging with the first access port 18 when the probe is inserted, through the first access port 18, into the first reservoir 12. In this way, the seal 110 may better assist with the reduction of leakage of aerosolisable material through the first access port 18.

To help deliver any flavoured vapour from the second reservoir 14 to a user of the device 100, in accordance with some particular embodiments, the device 100 may further comprise a mouthpiece 114 for receiving vaporised aerosolisable material located in the second reservoir 14. In accordance with some particular embodiments thereof, and where the

second access port 20 is employed, at least a portion 116 of the mouthpiece 114 may be configured to be inserted, through the second access port 20, into the second reservoir 14 for allowing vaporised aerosolisable material located in the second reservoir 14 to pass through into the mouthpiece. In this way, the second access port 20 is only accessed when the device 100 is engaged with the consumable part, which assists with preventing inadvertent leakage of vapour from the second reservoir 14 through the second access port 20. For the sake of completeness however, it is be noted that the device 100 need not expressly comprise the mouthpiece 114, noting in some embodiments any provided second access port 20 (e.g. when it comprises a pierceable membrane) could instead simply be opened/pierced by the user just prior to use of the consumable part, and the user then simply place their mouth over the opened/pierced second access port 20.

Accordingly, there has been described a consumable part for use in an aerosol provision system, wherein the consumable part comprises:

a first reservoir for containing aerosolisable material;

a second reservoir for containing flavouring material; and

an aerosolisable material transport element for receiving the aerosolisable material from the first reservoir,

wherein the aerosolisable material transport element at least partly separates the first reservoir from the second reservoir, and wherein the aerosolisable material transport element is configured to deliver vaporised aerosolisable material into the second reservoir.

There has also been described an aerosol provision system comprising the consumable part as described above, and a device which is configured to releasably engage with the consumable part, wherein the device comprises a vaporiser for generating a vapour from the aerosolisable material in the aerosolisable material transport element.

There has also been described a consumable part 10 for use in an aerosol provision system. The consumable part comprises a first reservoir 12 for containing aerosolisable material, and a second reservoir 14 for containing flavouring material. The consumable part 10 also comprises an aerosolisable material transport element 16 for receiving the aerosolisable material from the first reservoir 12. The aerosolisable material transport element at least partly separates the first reservoir 12 from the second reservoir 14, and the aerosolisable material transport element 16 is configured to deliver vaporised aerosolisable material into the second reservoir 14.

There has also been described the following numbered embodiments:

1. A consumable part for use in an aerosol provision system, wherein the consumable part comprises:

a first reservoir for containing aerosolisable material;

a second reservoir for containing flavouring material; and

a first access port, comprising a pierceable membrane, for allowing access to the first reservoir;

wherein the first reservoir and the second reservoir are located within a housing of the consumable part, wherein the housing is made of paper or cardboard.

2. The consumable part according to embodiment 1, wherein the first access port is made of at least one of paper or cardboard.

3. The consumable part according to any of embodiments 1-2, wherein the first access port is single-use.

4. The consumable part according to any preceding embodiment, wherein the consumable part comprises a second access port for allowing access to the second reservoir.

5. The consumable part according to embodiment 4, wherein the second access port comprises a valve.

6. The consumable part according to embodiment 4 or 5, wherein the second access port comprises a pierceable membrane.

7. The consumable part according to any of embodiments 4-6, wherein the second access port is made of at least one of paper or cardboard.

8. The consumable part according to any of embodiments 4-7, wherein the second access port is single-use.

9. The consumable part according to any preceding embodiment, wherein the consumable part comprises a first end, and a second end opposite the first end, wherein the first reservoir is located closer to the first end than the second end, and wherein the second reservoir is located closer to the second end than the first end.

10. The consumable part according to embodiment 9, wherein the first access port is located at the first end.

11. The consumable part according to embodiment 9 or 10, when further dependent on embodiment 4, wherein the second access port is located at the second end.

12. The consumable part according to any preceding embodiment, wherein the consumable part is cylindrical.

13. The consumable part according to any preceding embodiment, wherein the first reservoir comprises a volumetric capacity which is no more than 10 ml.

14. The consumable part according to any preceding embodiment, wherein the second reservoir comprises a volumetric capacity which is no more than 10 ml.

15 The consumable part according to any preceding embodiment, wherein the second reservoir contains the flavouring material.

16. The consumable part according to any preceding embodiment, wherein the flavouring material comprises at least one of tobacco and/or nicotine.

17. The consumable part according to any preceding embodiment, further comprising an aerosolisable material transport element for receiving the aerosolisable material from the first reservoir, and wherein the aerosolisable material transport element is configured to deliver vaporised aerosolisable material into the second reservoir.

18. The consumable part according to embodiment 17, wherein the aerosolisable material transport element at least partly separates the first reservoir from the second reservoir.

19. The consumable part according to embodiment 17 or 18, wherein the aerosolisable material transport element comprises a mesh.

20. The consumable part according to any of embodiments 17-19, wherein the aerosolisable material transport element comprises a cotton or fibrous wick.

21. The consumable part according to any of embodiments 17-20, wherein the aerosolisable material transport element is moulded as part of the housing.

22. An aerosol provision system comprising the consumable part according to any wherein the consumable part further comprises an aerosolisable material transport element for receiving the aerosolisable material from the first reservoir, wherein the aerosol provision system further comprises a device which is configured to releasably engage with the consumable part, and wherein the device comprises a vaporiser for generating a vapour from the aerosolisable material in the aerosolisable material transport element.

23. An aerosol provision system according to embodiment 22, wherein the vaporiser comprises a heating element.

24. An aerosol provision system according to embodiment 22 or 23, wherein the vaporiser is configured to be inserted into the first reservoir for generating the vapour from the aerosolisable material in the aerosolisable material transport element.

25. An aerosol provision system according to embodiment 24, wherein the vaporiser defines a probe which is configured to be inserted, through the first access port, into the first reservoir for generating the vapour from the aerosolisable material in the aerosolisable material transport element.

26. An aerosol provision system according to embodiment 25, wherein the vaporiser is located at least partially at a tip of the probe.

27. An aerosol provision system according to any of embodiments 25-26, wherein the device comprises an air inlet channel which is configured to supply air into the consumable part, wherein the air inlet channel extends at least partly through the probe.

28. An aerosol provision system according to any of embodiments 22-27, wherein the device further comprises a mouthpiece for receiving vaporised aerosolisable material located in the second reservoir.

29. An aerosol provision system according to embodiment 28, when further dependent on embodiment 4, wherein at least a portion of the mouthpiece is configured to be inserted, through the second access port, into the second reservoir for allowing vaporised aerosolisable material located in the second reservoir to pass through into the mouthpiece.

There has also been described a consumable part 10 for use in an aerosol provision system. The consumable part 10 comprises a first reservoir 12 for containing aerosolisable material,

and a second reservoir 14 for containing flavouring material. The consumable part 10 also comprises a first access port 18, comprising a pierceable membrane, for allowing access to the first reservoir. The first reservoir 12 and the second reservoir 14 are located within a housing 26 of the consumable part 10, wherein the housing 26 is made of paper or cardboard. This may serve to make the consumable part 10 more environmentally friendly and easier to recycle.

In order to address various issues and advance the art, this disclosure shows by way of illustration various embodiments in which the claimed invention(s) may be practiced. The advantages and features of the disclosure are of a representative sample of embodiments only, and are not exhaustive and/or exclusive. They are presented only to assist in understanding and to teach the claimed invention(s). It is to be understood that advantages, embodiments, examples, functions, features, structures, and/or other aspects of the disclosure are not to be considered limitations on the disclosure as defined by the claims or limitations on equivalents to the claims, and that other embodiments may be utilised and modifications may be made without departing from the scope of the claims. Various embodiments may suitably comprise, consist of, or consist essentially of, various combinations of the disclosed elements, components, features, parts, steps, means, etc. other than those specifically described herein, and it will thus be appreciated that features of the dependent claims may be combined with features of the independent claims in combinations other than those explicitly set out in the claims. The disclosure may include other inventions not presently claimed, but which may be claimed in future.

For instance, although the present disclosure has been described with reference to a "liquid" or "fluid" in the consumable part / aerosol provision system, it will be appreciated that this liquid or fluid may be replaced with any aerosolisable material. Equally, where an aerosolisable material is used, it will be appreciated that in some embodiments this aerosolisable material may comprise a liquid or fluid.

Similarly, and as explained previously, although the vaporiser has been disclosed as being in a number of embodiments part of the device 100, in some embodiments of the herein described consumable part 10, the vaporiser may be a part of the consumable part 10, such as in some embodiments positioned in a location that is next to or proximate the aerosolisable material transport element 16. In such embodiments, the vaporiser may be actuated and/or powered upon contact of the vaporiser with an electrical connection/electrode forming part of the probe 108 of the device 100. Alternatively, in some embodiments, the vaporiser may be wirelessly or inductively powered by the device 100, for instance in a particular embodiment by the device 100 comprising an inductive power supply which is configured to inductively power the vaporiser from the consumable part 10.

Staying with vaporiser 102 as well, and as explained previously, the vaporiser herein described may take a variety of different forms. In that respect, in some embodiments the vaporiser 102 may comprise a heater/heating element. Equally, in some embodiments, the vaporiser 102 may be capable of generating a vapour/aerosol from the aerosolisable material without applying heat thereto, for example via one or more of vibrational, mechanical, pressurisation or electrostatic means.

CLAIMS

1. A consumable part for use in an aerosol provision system, wherein the consumable part comprises:

a first reservoir for containing aerosolisable material;

a second reservoir for containing flavouring material; and

an aerosolisable material transport element for receiving the aerosolisable material from the first reservoir,

wherein the aerosolisable material transport element at least partly separates the first reservoir from the second reservoir, and wherein the aerosolisable material transport element is configured to deliver vaporised aerosolisable material into the second reservoir.

2. The consumable part according to claim 1, wherein the consumable part comprises a first access port for allowing access to the first reservoir.

3. The consumable part according to claim 2, wherein the first access port comprises a valve.

4. The consumable part according to claim 2 or 3, wherein the first access port comprises a pierceable membrane.

5. The consumable part according to any of claims 2-4, wherein the first access port is made of at least one of paper, cardboard, and/or silicone.

6. The consumable part according to any of claims 2-5, wherein the first access port is single-use.

7. The consumable part according to any preceding claim, wherein the consumable part comprises a second access port for allowing access to the second reservoir.

8. The consumable part according to claim 7, wherein the second access port comprises a valve.

9. The consumable part according to claim 7 or 8, wherein the second access port comprises a pierceable membrane.

10. The consumable part according to any of claims 7-9, wherein the second access port is made of at least one of paper, cardboard, and/or silicone.

11. The consumable part according to any of claims 7-10, wherein the second access port is single-use.

12. The consumable part according to any preceding claim, wherein the consumable part comprises a first end, and a second end opposite the first end, wherein the first reservoir is located closer to the first end than the second end, and wherein the second reservoir is located closer to the second end than the first end.

13. The consumable part according to claim 12, when further dependent on claim 2, wherein the first access port is located at the first end.

14. The consumable part according to claim 12 or 13, when further dependent on claim 7, wherein the second access port is located at the second end.

15. The consumable part according to any preceding claim, wherein the aerosolisable material transport element comprises a mesh.

16. The consumable part according to any preceding claim, wherein the aerosolisable material transport element comprises a cotton or fibrous wick.

17. The consumable part according to any preceding claim, wherein the first reservoir and the second reservoir are located within a housing of the consumable part

18. The consumable part according to any preceding claim, wherein the aerosolisable material transport element is moulded as part of the housing.

19. The consumable part according to claim 17 or 18, wherein the housing is made of paper or cardboard.

20. The consumable part according to any preceding claim, wherein the consumable part is cylindrical.

21. The consumable part according to any preceding claim, wherein the first reservoir comprises a volumetric capacity which is no more than 10 ml.

22. The consumable part according to any preceding claim, wherein the second reservoir comprises a volumetric capacity which is no more than 10 ml.

23 The consumable part according to any preceding claim, wherein the second reservoir contains the flavouring material.

24. The consumable part according to any preceding claim, wherein the flavouring material comprises at least one of tobacco and/or nicotine.

25. An aerosol provision system comprising the consumable part according to any preceding claim, and a device which is configured to releasably engage with the consumable part, wherein the device comprises a vaporiser for generating a vapour from the aerosolisable material in the aerosolisable material transport element.

26. An aerosol provision system according to claim 25, wherein the vaporiser comprises a heating element.

27. An aerosol provision system according to claim 25 or 26, wherein the vaporiser is configured to be inserted into the first reservoir for generating the vapour from the aerosolisable material in the aerosolisable material transport element.

28. An aerosol provision system according to claim 27, when further dependent on claim 2, wherein the vaporiser defines a probe which is configured to be inserted, through the first access port, into the first reservoir for generating the vapour from the aerosolisable material in the aerosolisable material transport element.

29. An aerosol provision system according to claim 28, wherein the vaporiser is located at least partially at a tip of the probe.

30. An aerosol provision system according to any of claims 28-29, wherein the device comprises an air inlet channel which is configured to supply air into the consumable part, wherein the air inlet channel extends at least partly through the probe.

31. An aerosol provision system according to any of claims 25-30, wherein the device further comprises a mouthpiece for receiving vaporised aerosolisable material located in the second reservoir.

32. An aerosol provision system according to claim 31, when further dependent on claim 7, wherein at least a portion of the mouthpiece is configured to be inserted, through the second access port, into the second reservoir for allowing vaporised aerosolisable material located in the second reservoir to pass through into the mouthpiece.

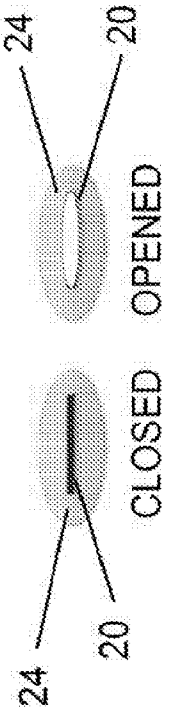

FIG. 1B

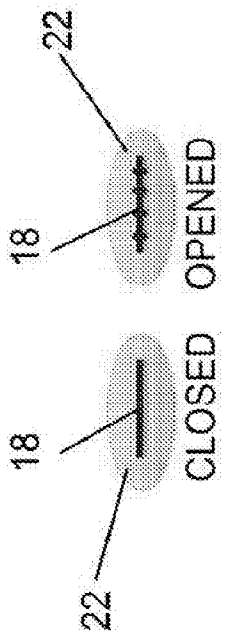

FIG. 1C

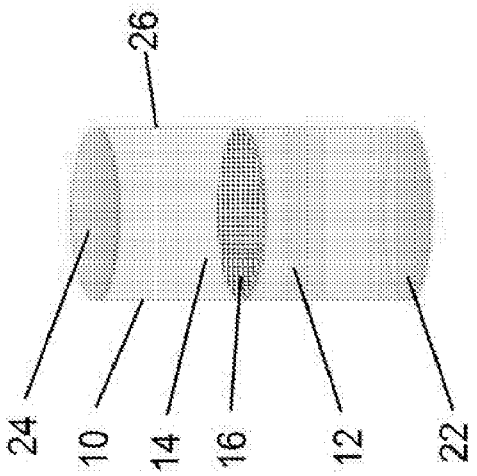

FIG. 1A

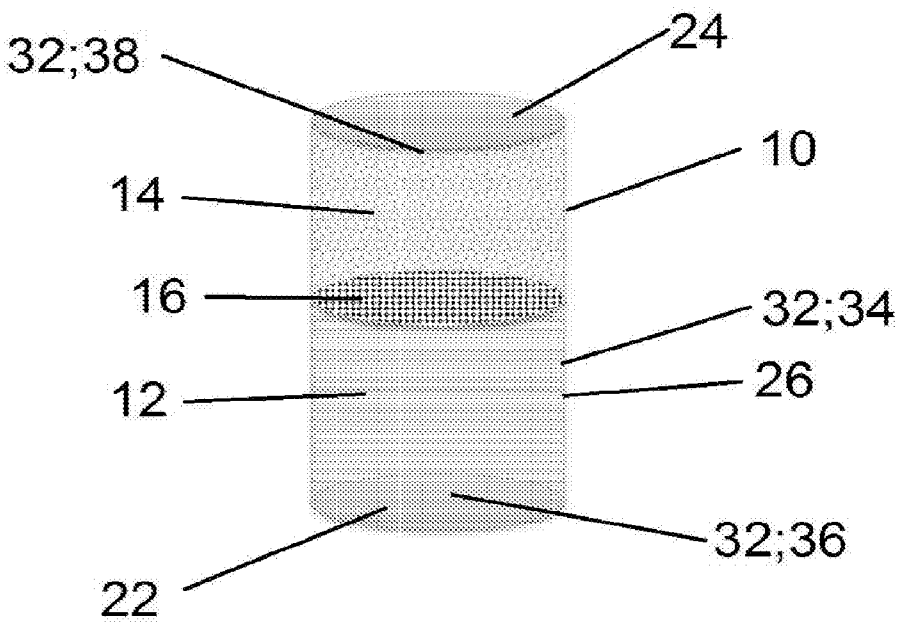

FIG. 2

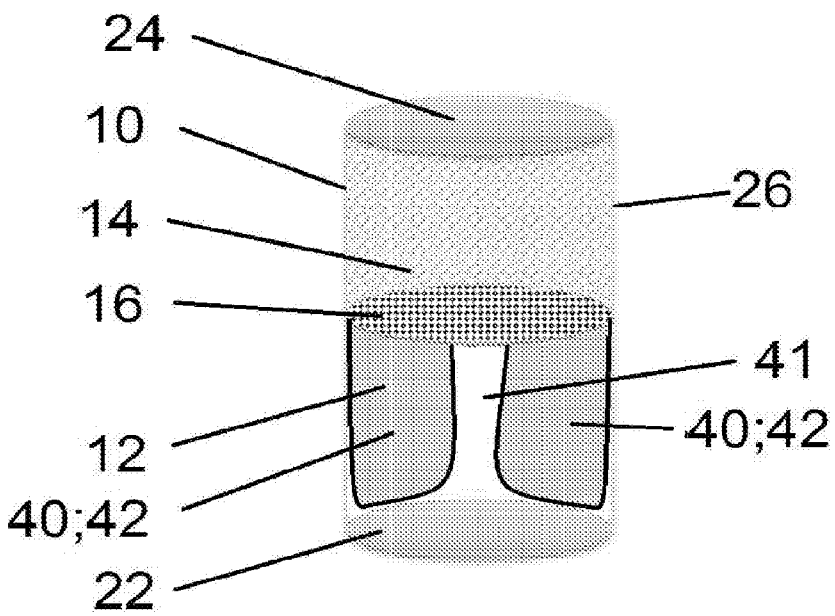

FIG. 3

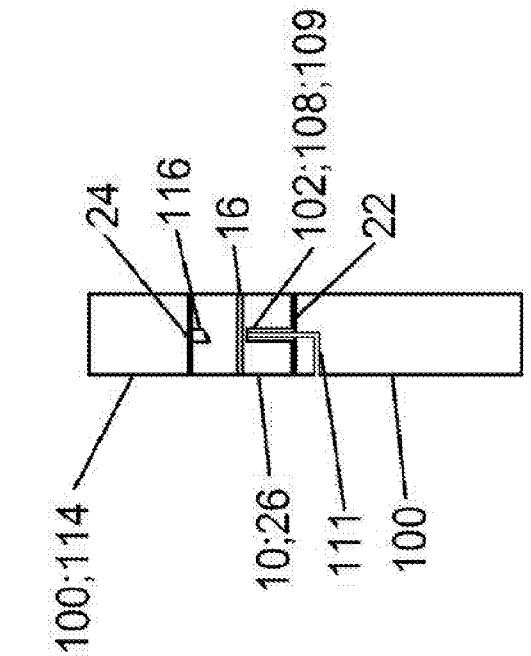

FIG. 4B

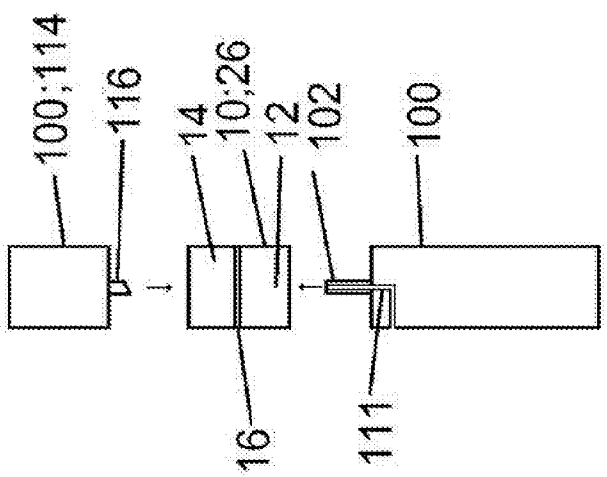

FIG. 4A

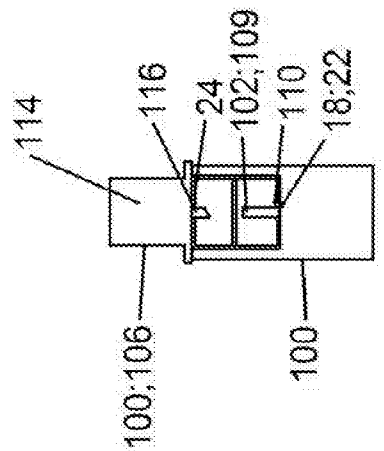

FIG. 5B

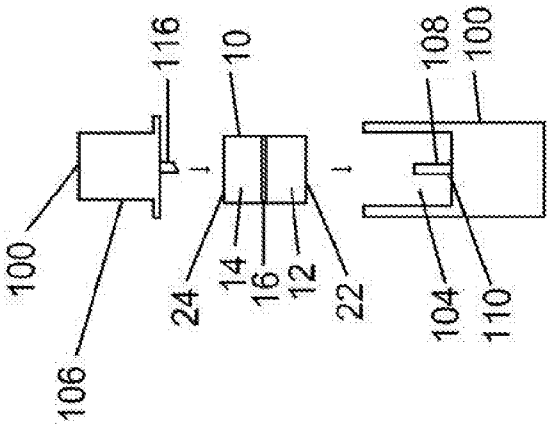

FIG. 5A

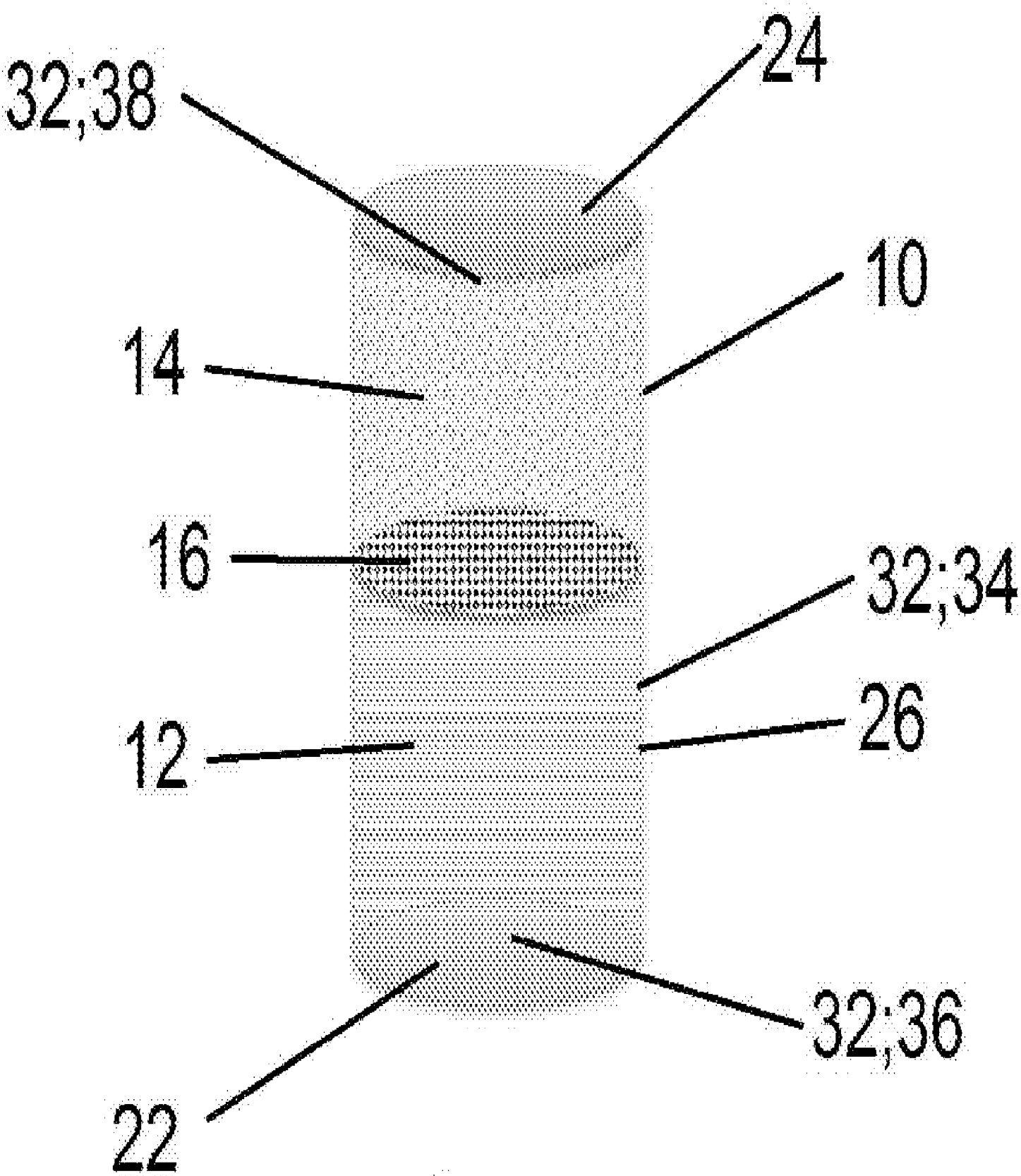

FIG. 2