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(54) **AN AEROSOL-GENERATING DEVICE FOR USE WITH A CONSUMABLE HAVING A PLURALITY OF CARTRIDGES**

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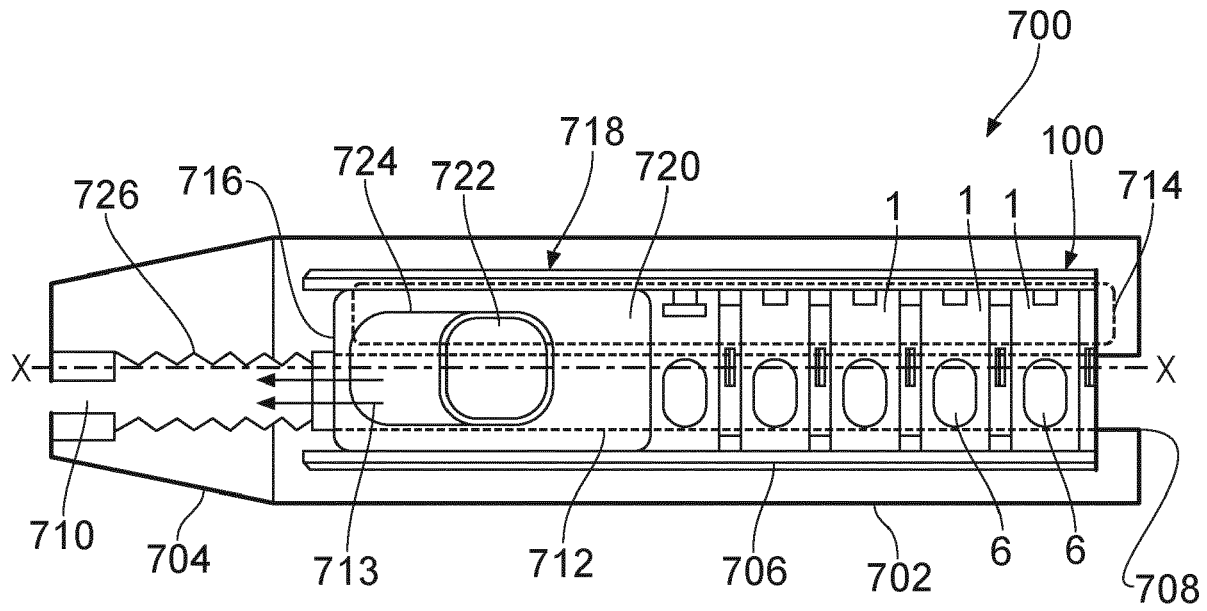
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(52) **U.S. Cl.**

CPC ***A24F 40/42*** (2020.01); ***A24F 40/46*** (2020.01); ***A24F 40/48*** (2020.01); ***A24F 40/60*** (2020.01)

(57) **ABSTRACT**

An aerosol-generating device is provided for a consumable including a plurality of cartridges arranged consecutively to form an elongate strip of cartridges, each cartridge including an aerosol-forming substrate, the device including: an air inlet and an aerosol outlet, the inlet being in fluid communication with the outlet to define an airflow pathway through the device; an aerosolisation zone to aerosolise the substrate in each cartridge, at least a portion of the zone being arranged within the airflow pathway; a holder to receive and to hold the elongate strip; and an indexing device to advance the elongate strip a predetermined distance towards the zone in a direction parallel to a longitudinal axis of the device so each cartridge of the elongate strip successively enters the zone, the device being configured to arrange a cartridge transversely across the airflow pathway when a cartridge is located in the zone.



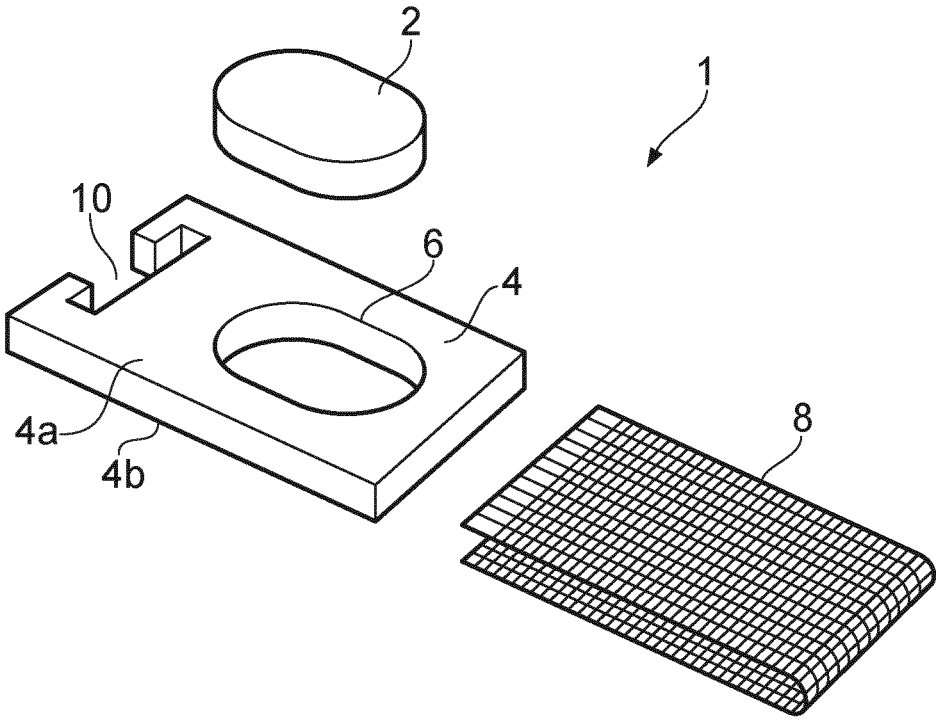


FIG. 1A

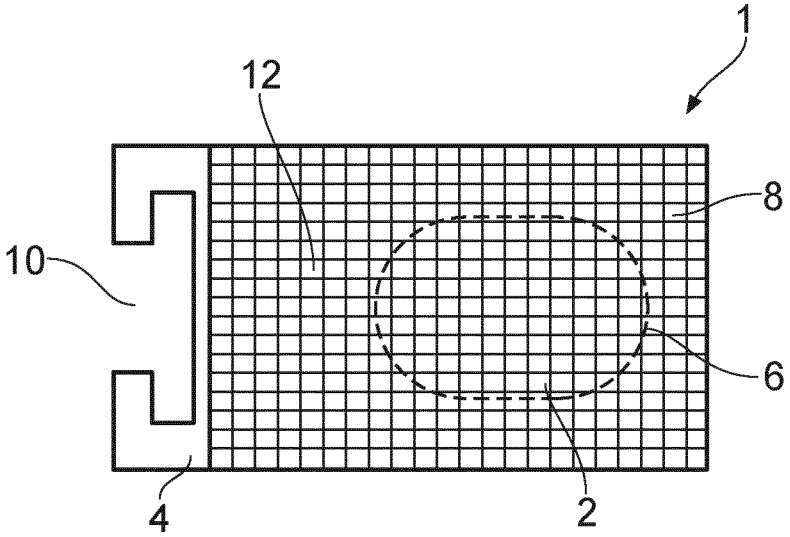


FIG. 1B

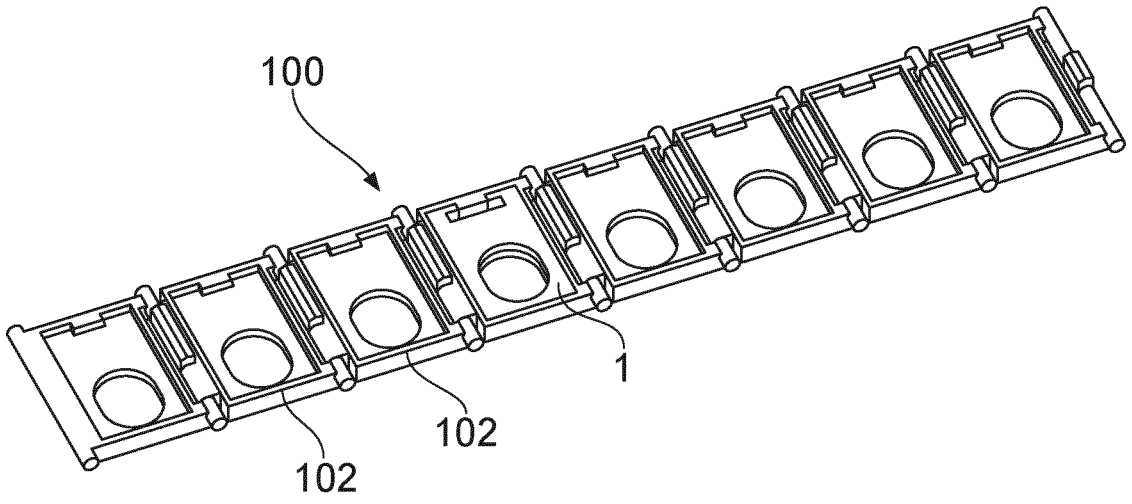

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FIG. 2A

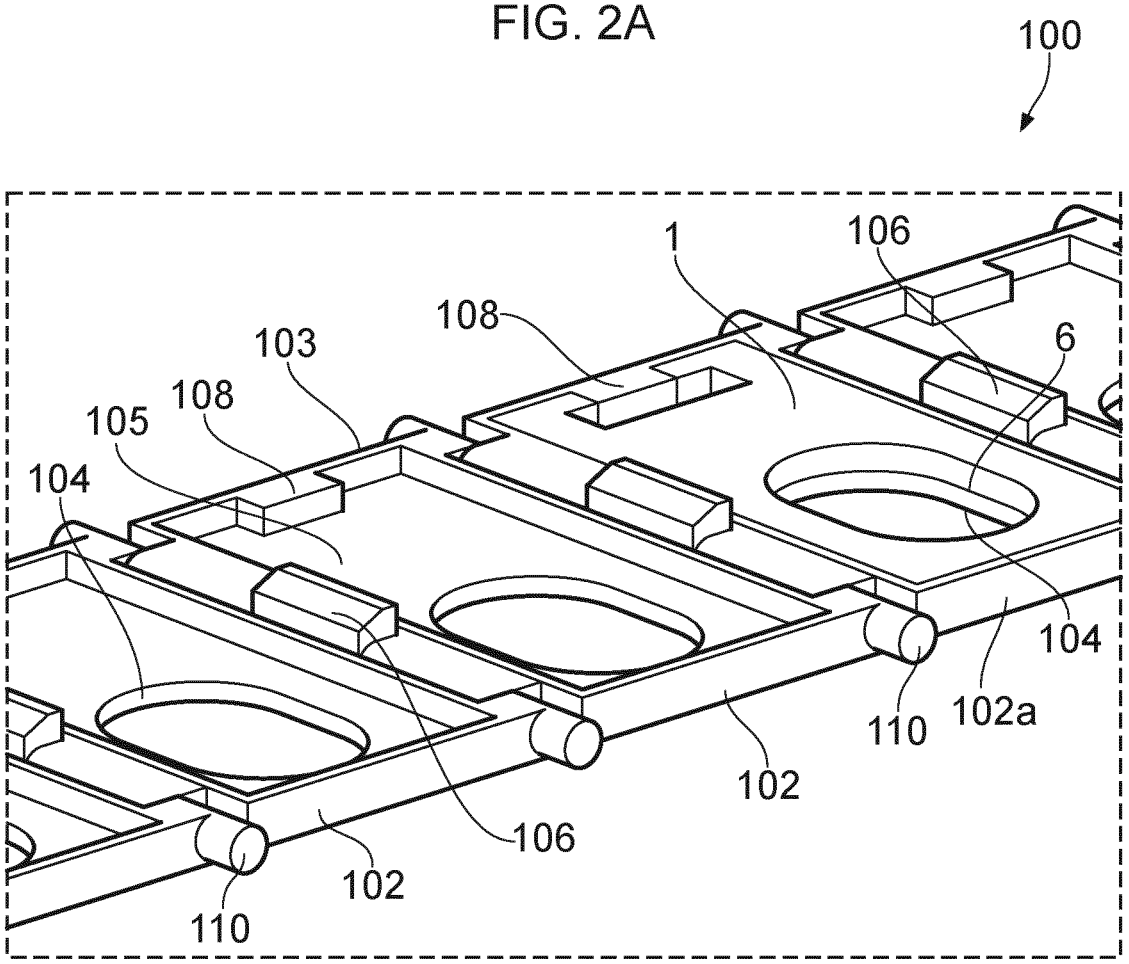

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FIG. 2B

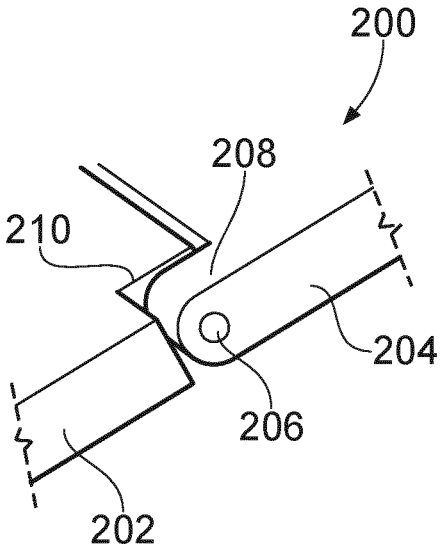


FIG. 3A

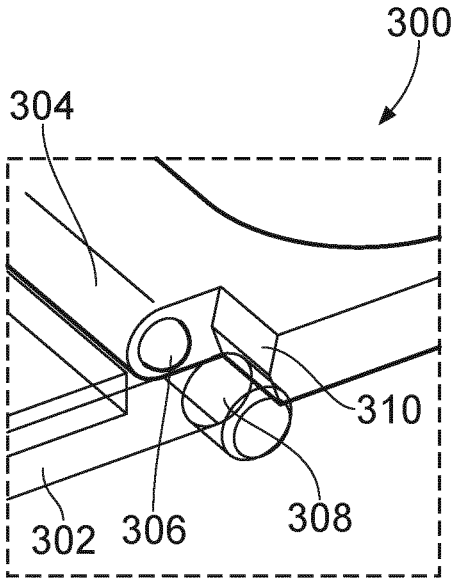


FIG. 3B

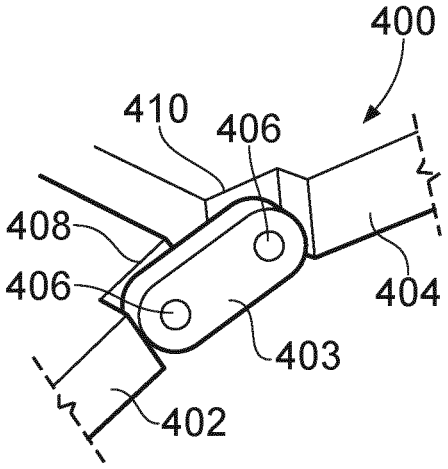


FIG. 3C

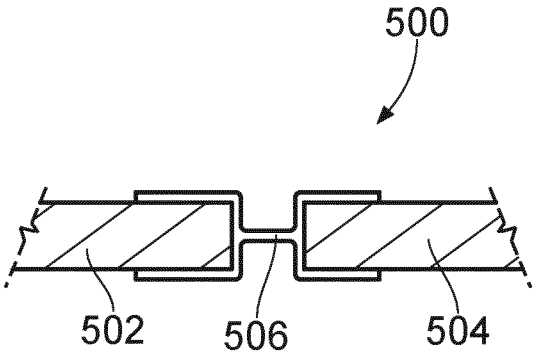


FIG. 3D

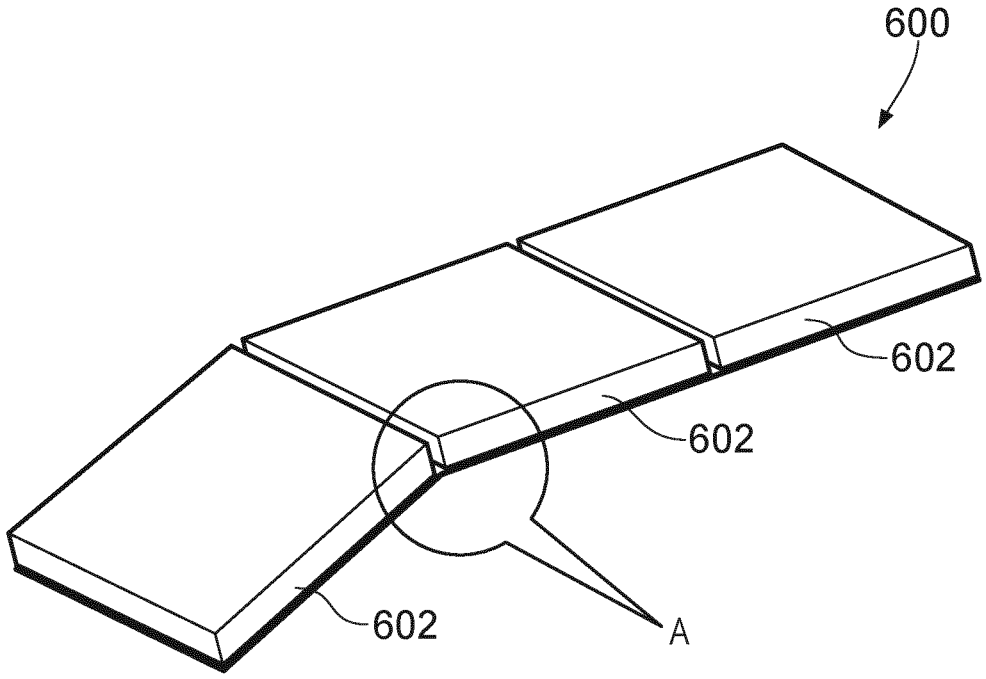


FIG. 4A

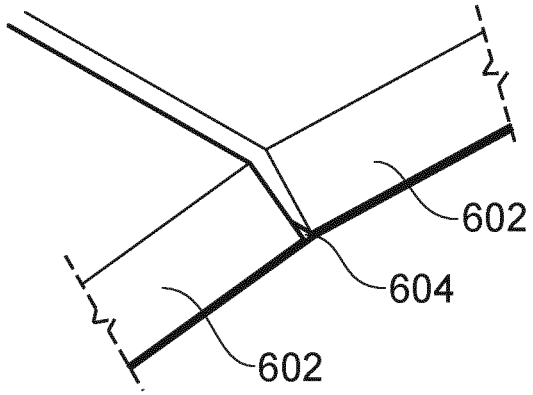


FIG. 4B

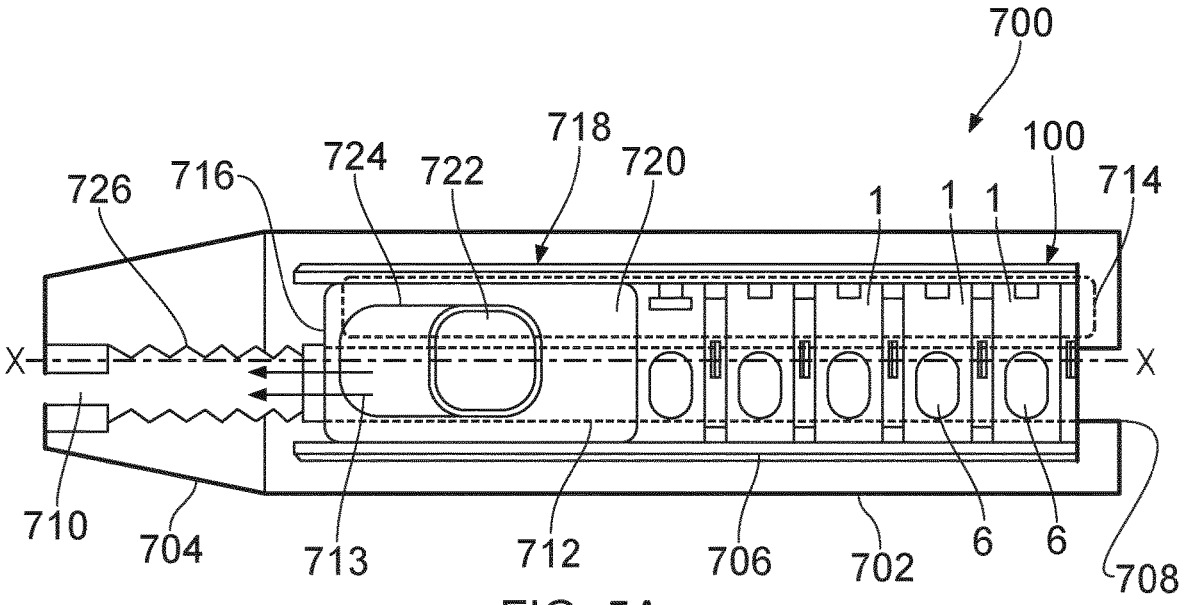

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FIG. 5A

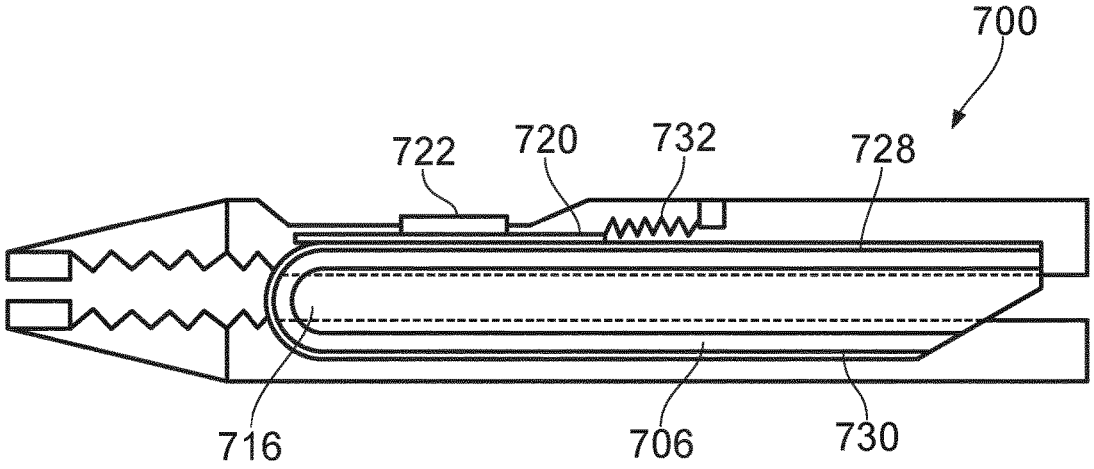

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FIG. 5B

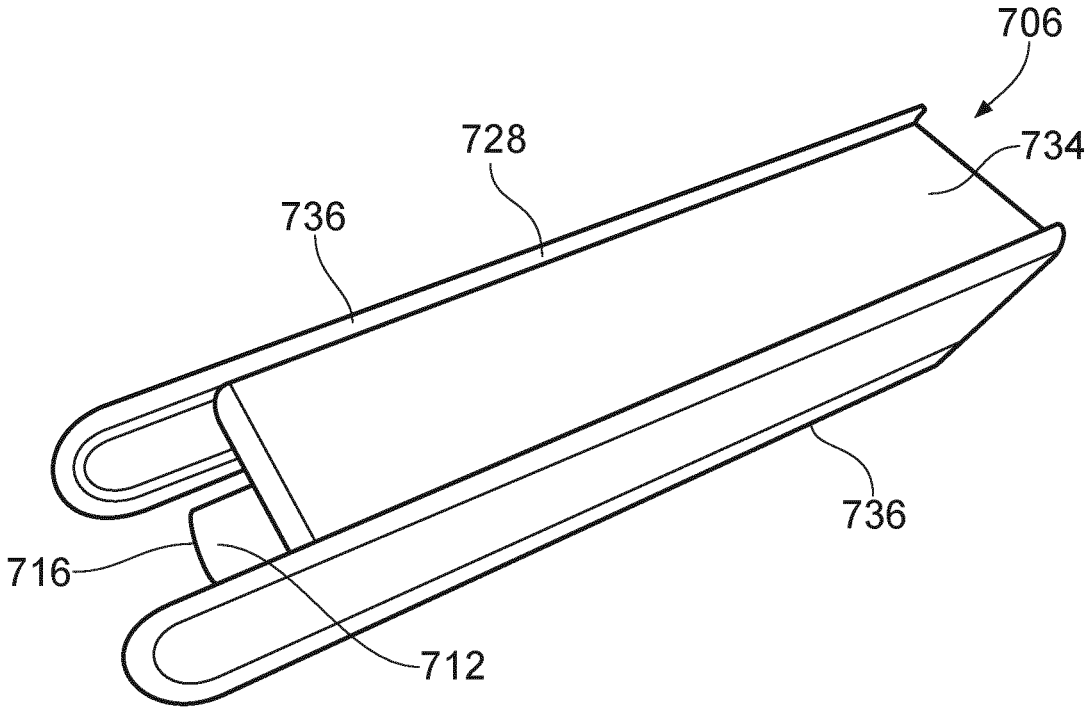


FIG. 6A

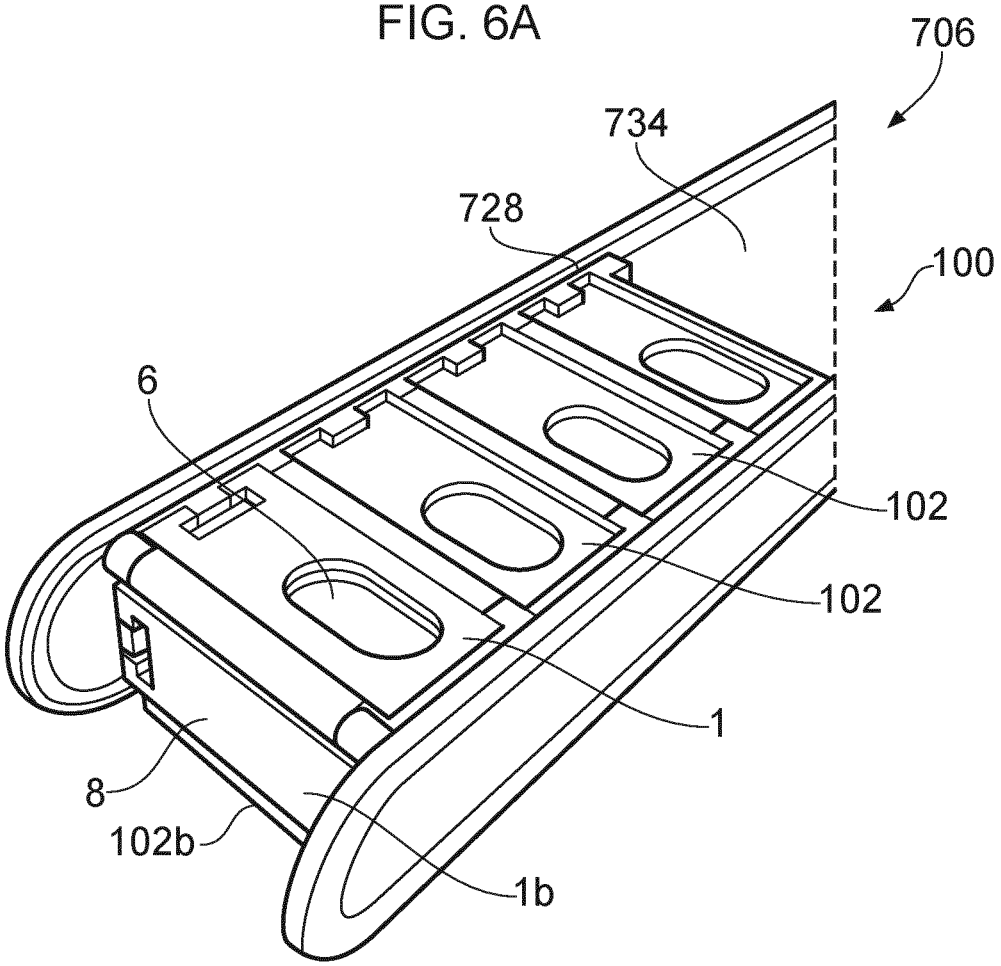


FIG. 6B

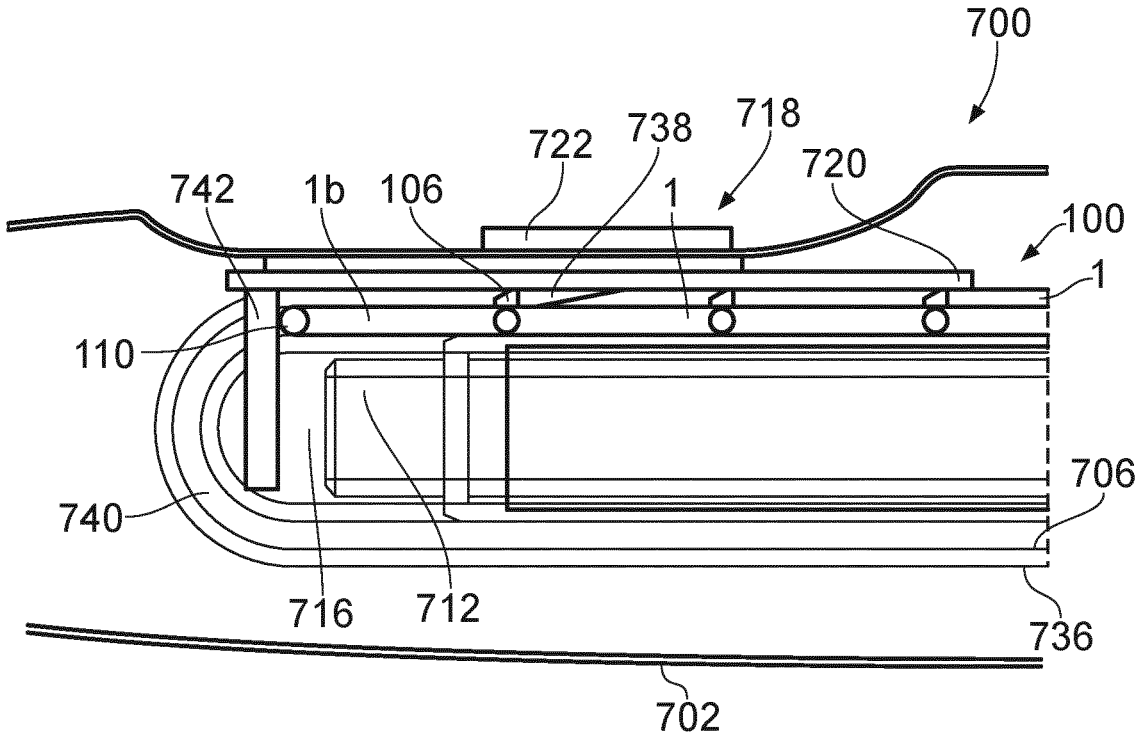

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FIG. 7A

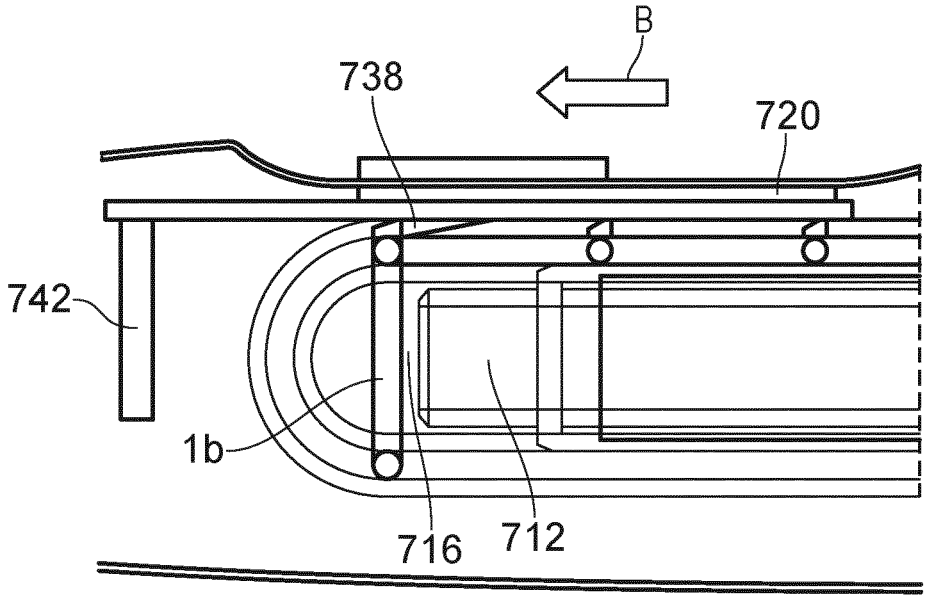

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FIG. 7B

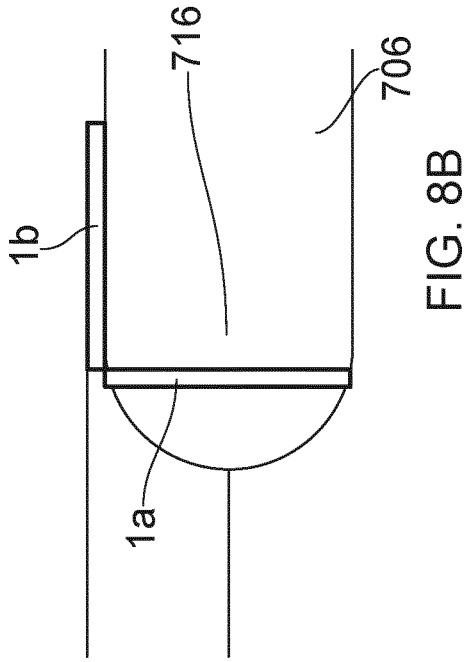


FIG. 8B

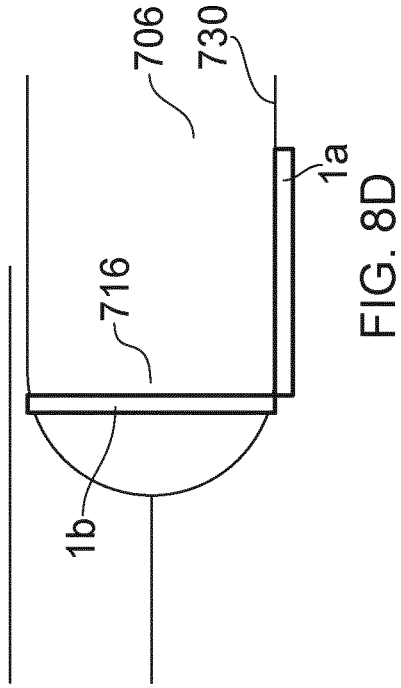


FIG. 8D

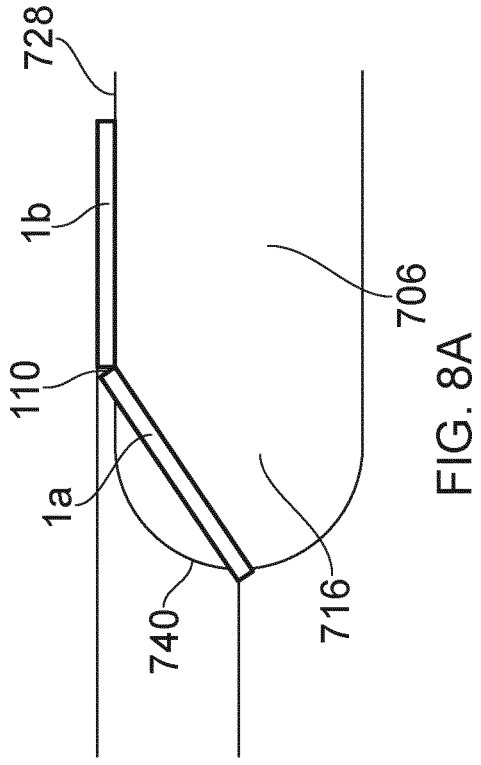


FIG. 8A

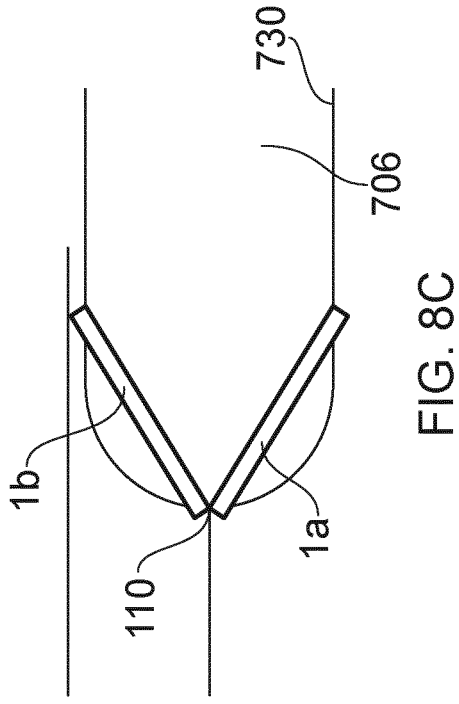


FIG. 8C

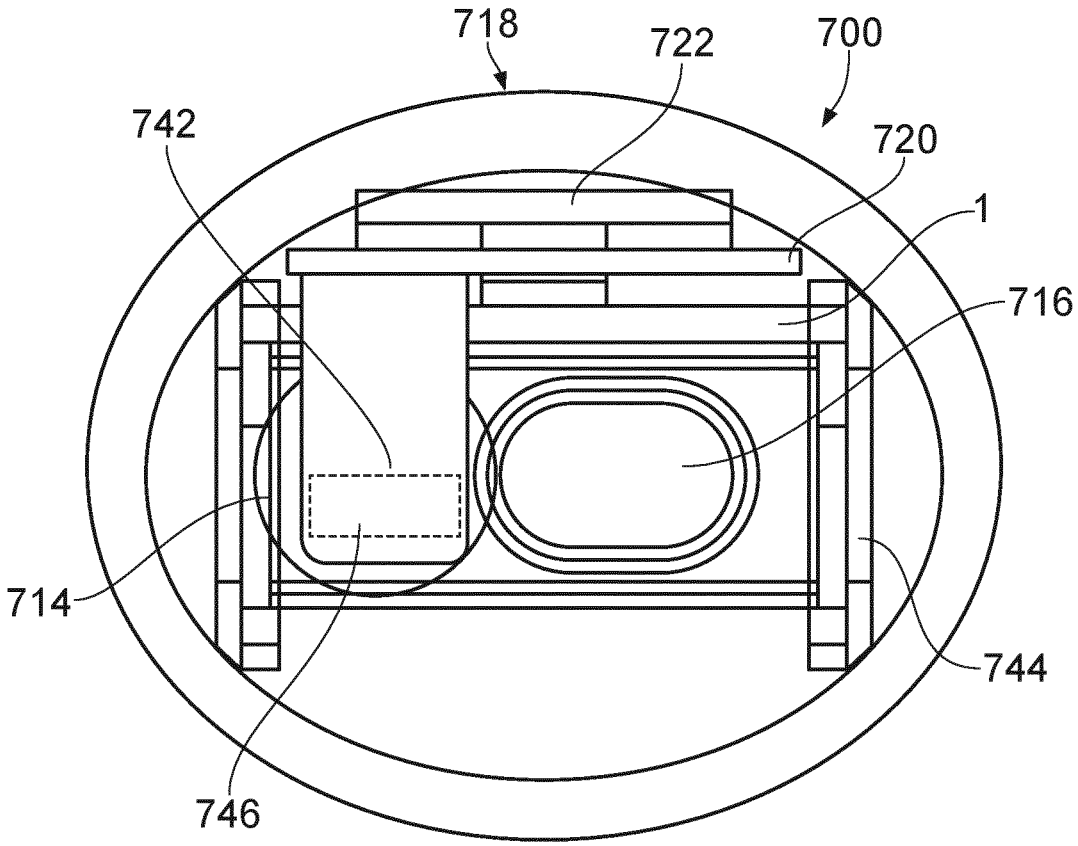


FIG. 9A

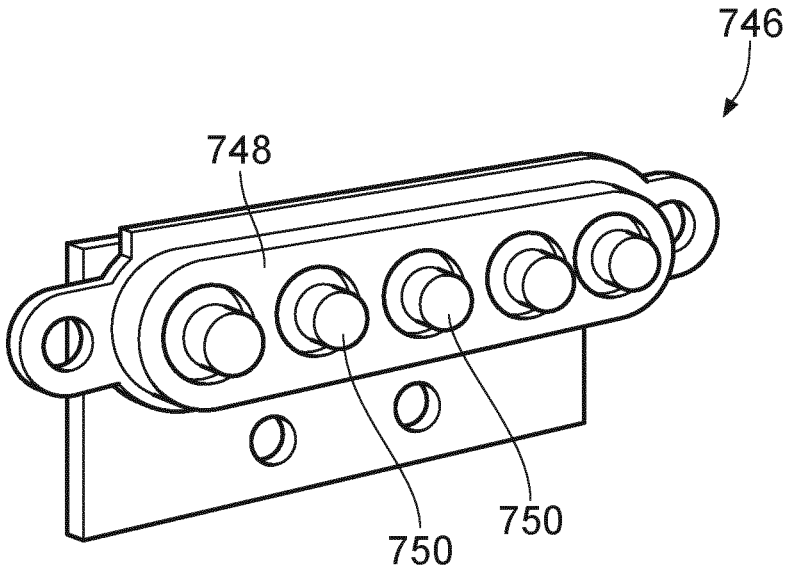


FIG. 9B

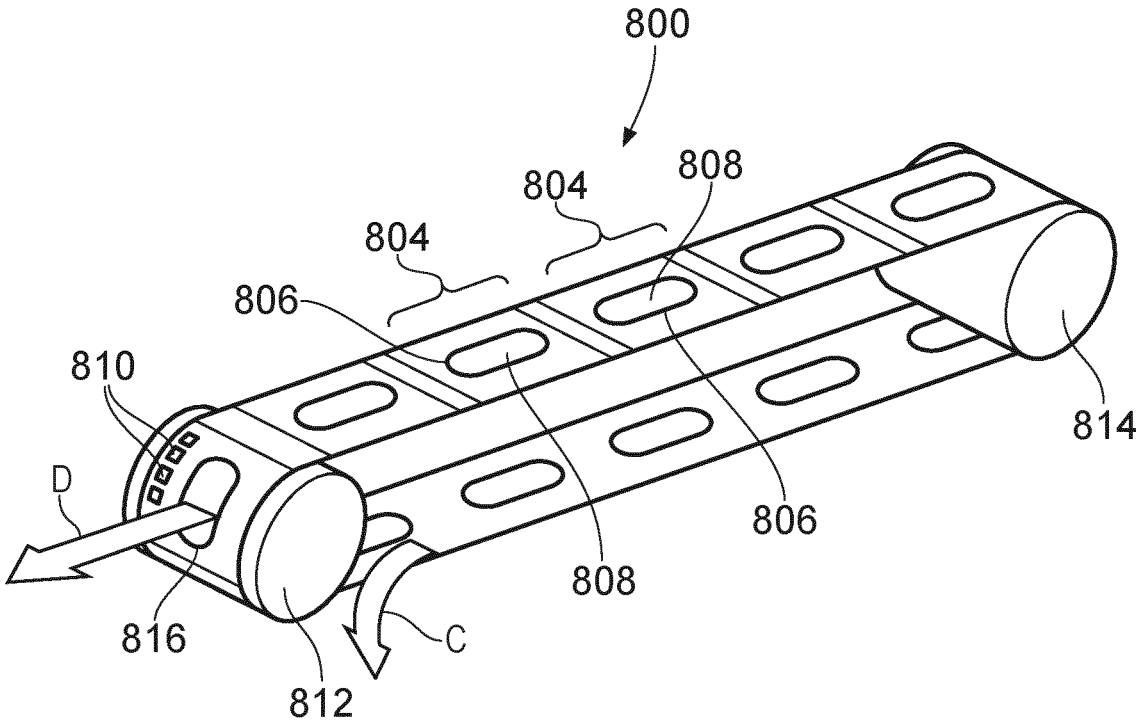

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FIG. 10

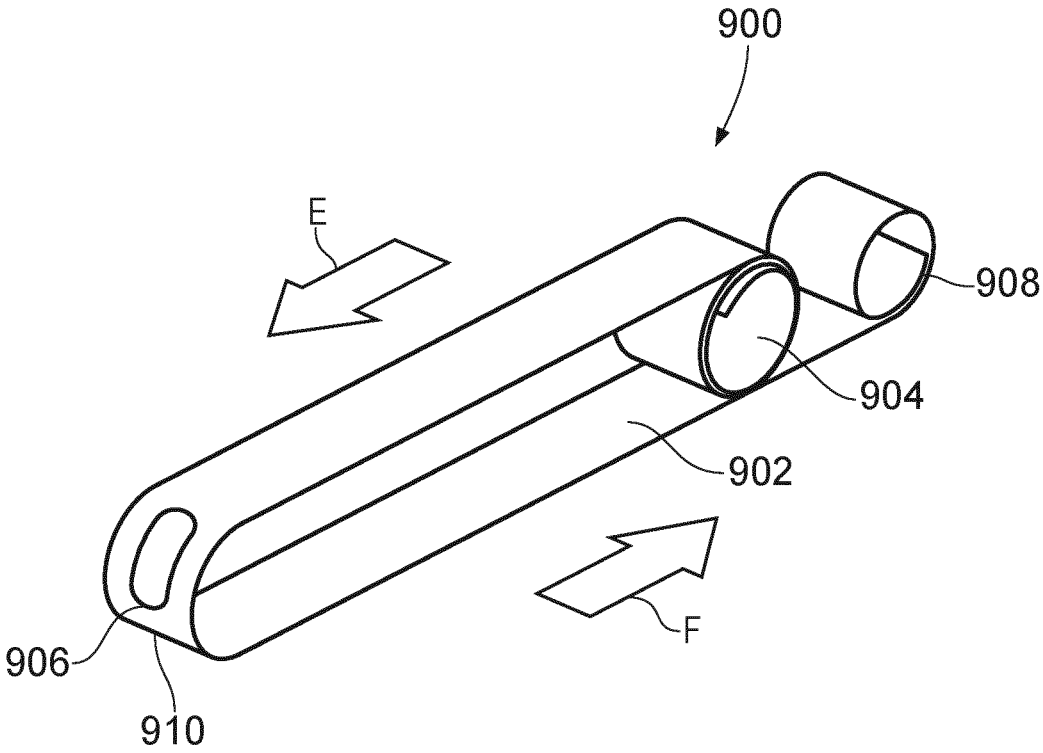

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FIG. 11

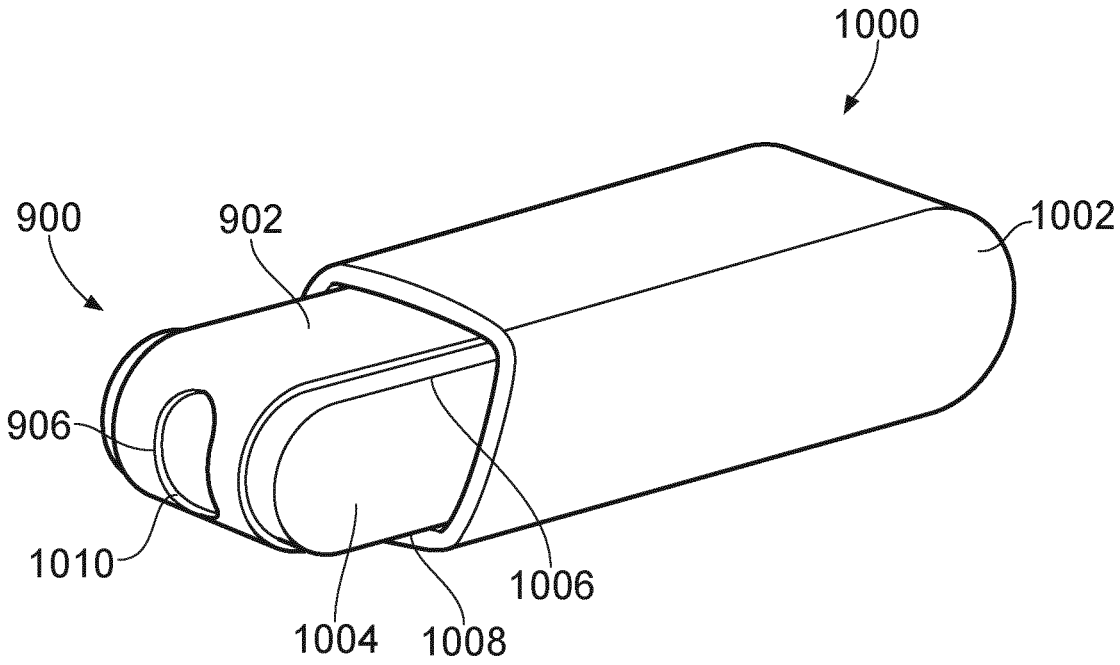


FIG. 12A

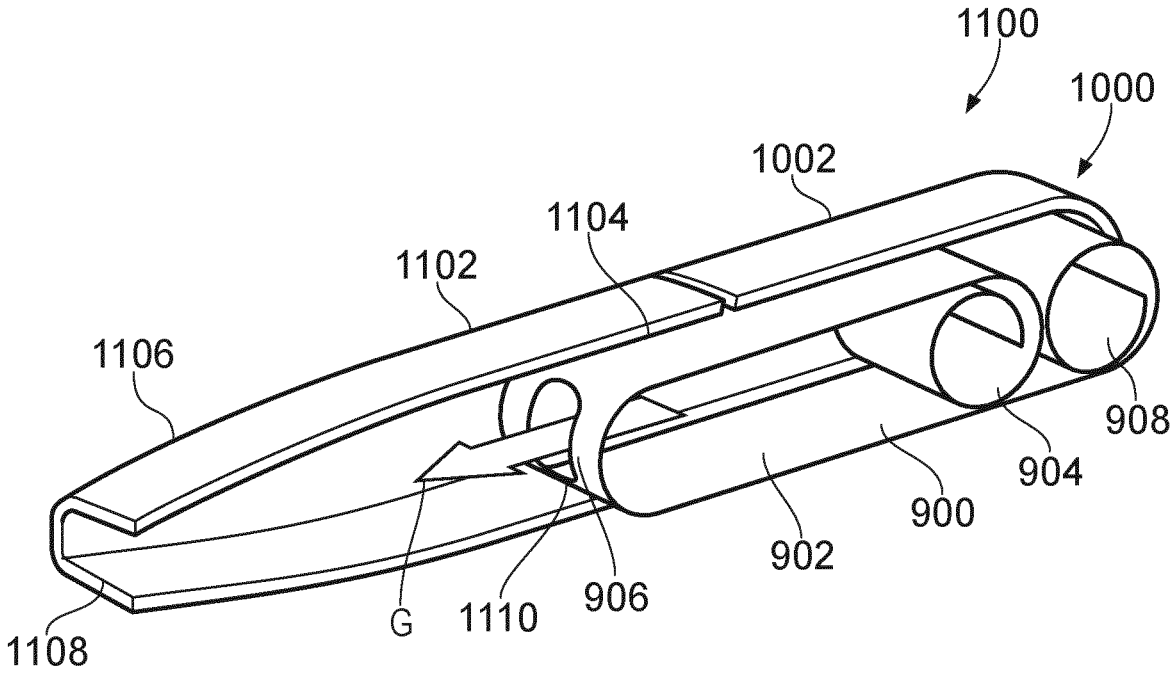


FIG. 12B

AN AEROSOL-GENERATING DEVICE FOR USE WITH A CONSUMABLE HAVING A PLURALITY OF CARTRIDGES

[0001] The present disclosure relates to an aerosol-generating device for use with a consumable having a plurality of cartridges. In particular, but not exclusively, the present disclosure relates to a handheld electrically operated aerosol-generating device for heating an aerosol-forming substrate to generate an aerosol and for delivering the aerosol into the mouth of a user. The present disclosure further relates to a consumable having a plurality of cartridges and to an aerosol-generating system comprising an aerosol-generating device and a consumable.

[0002] Aerosol-generating devices which heat an aerosol-forming substrate to produce an aerosol are known in the art. These devices may be adapted for use with consumables comprising multiple discrete amounts or doses of an aerosol-forming substrate. Such consumables may allow a user to more accurately monitor how much aerosol they are consuming compared to devices having a single larger volume or reservoir of aerosol-forming substrate on which a user may continuously puff or inhale.

[0003] However, devices adapted for use with consumables having multiple discrete amounts or doses of aerosol-forming substrate are often bulkier and more complicated to use than devices having a single larger volume or reservoir of aerosol-forming substrate. This is due to the need to store the multi-dose consumable, which is generally bulkier than a single reservoir. It is also due to the need to provide a mechanism by which single discrete amounts or doses of aerosol-forming substrate can be successively delivered to a location where it can be puffed on or inhaled by a user.

[0004] A known arrangement for storing such multi-dose consumables is in a circular cassette or carousel in which discrete doses of aerosol-forming substrate are arranged at different angular positions around the cassette. The cassette is generally offset from an airflow pathway of the device via which a user puffs or inhales on the generated aerosol. Each time the user wishes to take a puff on the aerosol-generating device, the cassette has to be moved to the position of the next available dose. The dose of aerosol-forming substrate then needs to be brought into communication with an airflow pathway and aerosolised so that it can be puffed on or inhaled by the user. Such a device requires a complicated and accurate drive mechanism to deliver the aerosol-forming substrate to a user, which increases the complexity and cost of manufacture.

[0005] It would be desirable to provide an aerosol-generating device for use with a consumable having multiple discrete amounts or doses or aerosol-forming substrate which is simpler to use and manufacture and which is more compact.

[0006] It would be desirable to provide a consumable having multiple discrete amounts or doses or aerosol-forming substrate which allows for the use of a simpler, more compact and easier to manufacture device.

[0007] According to an aspect of the present disclosure, there is provided an aerosol-generating device for use with a consumable. The consumable may comprise a plurality of cartridges. The cartridges may be arranged consecutively to form an elongate strip of cartridges. Each cartridge in the elongate strip of cartridges may comprise an aerosol-forming substrate. The aerosol-generating device may comprise an air inlet. The aerosol-generating device may comprise an aerosol outlet. The air inlet may be in fluid communication with the aerosol outlet to define an airflow pathway through the aerosol-generating device. The aerosol-generating device may comprise an aerosolisation zone for aerosolising the aerosol-forming substrate comprised in each cartridge. At least a portion of the aerosolisation zone may be arranged within the airflow pathway. The aerosol-generating device may comprise a holder for receiving and holding the elongate strip of cartridges. The aerosol-generating device may comprise an indexing mechanism for advancing the elongate strip of cartridges a predetermined distance towards the aerosolisation zone. The indexing mechanism may advance the elongate strip of cartridges towards the aerosolisation zone in a direction parallel to a longitudinal axis of the aerosol-generating device such that each cartridge successively enters the aerosolisation zone.

[0008] According to an aspect of the present disclosure, there is provided an aerosol-generating device for use with a consumable comprising a plurality of cartridges arranged consecutively to form an elongate strip of cartridges. Each cartridge in the elongate strip of cartridges comprises an aerosol-forming substrate. The aerosol-generating device comprises an air inlet and an aerosol outlet. The air inlet is in fluid communication with the aerosol outlet to define an airflow pathway through the aerosol-generating device. The aerosol-generating device comprises an aerosolisation zone for aerosolising the aerosol-forming substrate comprised in each cartridge. At least a portion of the aerosolisation zone is arranged within the airflow pathway. The aerosol-generating device comprises a holder for receiving and holding the elongate strip of cartridges. The aerosol-generating device comprises an indexing mechanism for advancing the elongate strip of cartridges a predetermined distance towards the aerosolisation zone in a direction parallel to a longitudinal axis of the aerosol-generating device such that each cartridge successively enters the aerosolisation zone.

[0009] Advantageously, the indexing mechanism of the aerosol-generating device advances the elongate strip of cartridges towards the aerosolisation zone in a direction parallel to a longitudinal axis of the aerosol-generating device. This allows for the use of simple linear actuators for simpler operation of the aerosol-generating device. Furthermore, the elongate strip of cartridges can be stored along the length of the aerosol-generating device, which helps to reduce the overall size of the device and achieve a compact design.

[0010] As used herein, the term "cartridge" refers to a container or support which holds a predetermined amount of an aerosol-forming substrate. For example, the term "cartridge" encompasses physical containers which enclose or encapsulate an aerosol-forming substrate as well as an area of a support or carrier which holds an aerosol-forming substrate or upon which the aerosol-forming substrate is deposited or impregnated. The aerosol-forming substrate may comprise one or more of a solid, a liquid and a gel.

[0011] As used herein, the terms "distal" and "proximal" are used to describe the relative positions of components, or portions of components, of the aerosol-generating device or consumable and are not intended to be limiting. Aerosol generating articles and devices according to the present disclosure have a proximal end through which, in use, an aerosol exits the article or device for delivery to a user, and have an opposing distal end. The proximal end of the aerosol generating article and device may also be referred to as the

mouth end. In use, a user draws on the proximal end of the aerosol generating article in order to inhale an aerosol generated by the aerosol generating article or device.

[0012] As used herein, the terms "upper", "lower", "above", "below", "up", "down", etc. are used to describe the relative positions of components, or portions of components of the aerosol-generating device or consumable as seen in the drawings of the present disclosure and are not intended to be limiting.

[0013] The predetermined distance that the elongate strip of cartridges is advanced may correspond to a length of a single cartridge in a longitudinal direction of the consumable. Advantageously, this allows a single actuation of the indexing mechanism to locate a cartridge in the aerosolisation zone; it is not necessary to actuate the indexing mechanism multiple times to locate a single cartridge. This improves the ease of operation of the aerosol-generating device.

[0014] The aerosol-generating device may be configured to arrange a cartridge transversely across the airflow channel when a cartridge is located in the aerosolisation zone. This improves the entrainment of the generated aerosol in the airflow.

[0015] The airflow pathway of the aerosol-generating device may be arranged to be in fluid communication with an airflow pathway of a cartridge when a cartridge is located in the aerosolisation zone. This allows the airflow to pass through the cartridge and improves the entrainment of the generated aerosol in the airflow.

[0016] At least a portion of the airflow pathway may be arranged parallel to a longitudinal axis of the aerosol-generating device. At least a portion of the airflow pathway may be laterally offset from the central longitudinal axis of the aerosol-generating device. This allows other components such as a power supply or control circuitry to be arranged alongside the airflow pathway resulting in a more compact design.

[0017] The holder may comprise a first elongate guide for holding a first portion of the elongate strip of cartridges. The first portion of the elongate strip of cartridges may comprise unused cartridges, that is, cartridges comprising an aerosol-forming substrate which is yet to be aerosolised. The first elongate guide provides a convenient means for receiving and storing a consumable comprising an elongate strip of cartridges. The plurality of unused cartridges can be stored on the first elongate guide until they are ready to be used. Furthermore, the consumable can be stored along the length of the elongate guide, which helps to reduce the overall size of the device and achieve a compact design.

[0018] The first elongate guide may be arranged to direct unused cartridges towards the aerosolisation zone. This allows unused cartridges to be successively fed into the aerosolisation zone to be aerosolised.

[0019] The holder may comprise a second elongate guide for holding a second portion of the elongate strip of cartridges. The second portion of the elongate strip of cartridges may comprise used cartridges, that is, cartridges which have passed through the aerosolisation zone and in which at least a portion of the aerosol-forming substrate has been aerosolised. The second elongate guide allows used cartridges to be stored separately from unused cartridges which may assist in reducing the risk of used cartridges contaminating or degrading the unused cartridges being held on the first elongate guide. The used cartridges can be conveniently stored on the second elongate guide until a user is ready to eject them from the aerosol-generating device. Furthermore, the used cartridges can be stored along the length of the elongate guide, which helps to reduce the overall size of the device and achieve a compact design.

[0020] The second elongate guide may be arranged to direct used cartridges away from the aerosolisation zone. This provides a means of removing used cartridges from the aerosolisation zone and moving them away from the aerosolisation zone to make space for following cartridges.

[0021] The aerosolisation zone may be arranged downstream of the first elongate guide with respect to a direction of airflow through the aerosol-generating device. This arrangement may help to reduce the risk of the aerosol generated in the aerosolisation zone contaminating the unused cartridges being held on the first elongate guide.

[0022] The aerosolisation zone may be disposed between the first and second elongate guides. This arrangement of the aerosolisation zone has been found to be particularly beneficial because it allows unused cartridges to be continuously fed into the aerosolisation zone along the first elongate guide and then immediately and continuously fed out of the aerosolisation zone along the second elongate guide once the cartridges have been used without having to break the elongate strip of cartridges.

[0023] The first elongate guide may direct the unused cartridges in a first direction towards the aerosolisation zone. The second elongate guide may direct the used cartridges in a second direction away from the aerosolisation zone. The second direction may be opposite to the first direction. This arrangement helps to reduce the overall length of the device and provide a compact and space efficient design.

[0024] The first and second directions may be parallel to a longitudinal axis of the aerosol-generating device. This helps to utilise the length of the aerosol-generating device to store both unused and used cartridges and helps to provide a compact and space efficient design.

[0025] The first and second elongate guides may be arranged parallel to a longitudinal axis of the aerosol-generating device. This has been found to be a particularly space or size efficient arrangement.

[0026] The indexing mechanism may comprise a slider configured to engage an indexing component on the consumable. The slider may be actuatable by a user to advance a cartridge into the aerosolisation zone. The slider may be manually driven by a user. The slider may be automatically actuated. The slider may be automatically actuated in response to a user puff or inhalation being detected by the aerosol-generating device. The slider may be automatically actuated in response to a user input at a user interface, for example, by activating a switch. The aerosol-generating device may comprise an actuator for automatically actuating the slider. A slider is simple to manufacture and operate. Furthermore, since the elongate strip of cartridges is advanced towards the aerosolisation zone in a direction parallel to a longitudinal axis of the aerosol-generating device, the slider can be a simple linear actuator which helps to further reduce manufacturing complexity and cost and provides for ease of operation.

[0027] The slider may be resiliently biased towards a first position. The slider may be moveable against the resilient bias to a second position. In the second position, an unused cartridge may be located within the aerosolisation zone. The resilient bias allows the aerosol-generating device to reset

the slider to the first position after it has located a cartridge within the aerosolisation zone. The resilient bias also maintains the slider in the first position when not in use so as to reduce unwanted movement of the slider. The resilient bias may be provided by a resilient element such as a spring or elastic member.

[0028] The slider may comprise an electrical connector for making electrical contact with a heating element. This allows the slider to be used as a connector or a switch such that a particular location of the slider can be used to allow for electrical contact between a heating element for heating the aerosol-forming substrate and a power supply. Advantageously, this allows the supply of power to be controlled so that power is only supplied to the heating element when the slider is in a predetermined position, for example, when a cartridge is located in the aerosolisation zone. Furthermore, it provides for an arrangement in which power may be supplied to only a single cartridge at a time to avoid inadvertently heating other cartridges in the consumable.

[0029] The airflow pathway between the aerosol outlet and the aerosolisation zone may be flexible. This allows the portion of the airflow pathway through the aerosol-generating device between the aerosol outlet and the aerosolisation zone to be deformed or compressed to accommodate moving parts within the device, for example, the slider.

[0030] The airflow pathway between the aerosol outlet and the aerosolisation zone may comprise a corrugated tube. This has been found to be an effective way of provide a flexible portion of the airflow pathway. For example, the corrugated tube can be compressed to accommodate movement of the slider.

[0031] Alternatively, the airflow pathway between the aerosol outlet and the aerosolisation zone may comprise a flexible tube with straight sidewalls. This has been found to be an effective way of provide a flexible portion of the airflow pathway. For example, the flexible tube can bend or otherwise deform to accommodate movement of the slider. The flexible tube may comprise any suitable material such as a polymer or elastomer. The flexible tube may comprise silicone.

[0032] A first end of the airflow pathway between the aerosol outlet and the aerosolisation zone may be connected to the aerosol outlet. A second end of the airflow pathway between the aerosol outlet and the aerosolisation zone may be connected to the slider. This arrangement allows the slider to move the airflow pathway out of the way when a cartridge is being loaded into the aerosolisation zone.

[0033] In one example, the holder may comprises a spool for holding the elongate strip of cartridges. A spool has been found to be a convenient means for storing a consumable comprising an elongate strip of cartridges.

[0034] The aerosol-generating device may further comprise an indexing spool for advancing the elongate strip of cartridges a predetermined distance towards the aerosolisation zone. The predetermined distance that the elongate strip of cartridges is advanced may correspond to a length of a single cartridge in a longitudinal direction of the consumable. Advantageously, this allows a single actuation of the indexing mechanism to locate a cartridge in the aerosolisation zone; it is not necessary to actuate the indexing mechanism multiple times to locate a single cartridge. This improves the ease of operation of the aerosol-generating device.

[0035] The elongate strip of cartridges may be wound as a continuous loop around the indexing spool and a tensioning spool.

[0036] Alternatively, the aerosol-generating device may comprise a first spool for storing unused cartridges. The aerosol-generating device may comprise a second spool for storing used cartridges.

[0037] The holder may be part of a cassette. The consumable may be part of a cassette. The cassette may be removably attached to the aerosol-generating device.

[0038] The aerosol-generating device may comprise a power supply or power source for supplying electrical power to a heating element. The power supply may be any suitable power supply, for example a DC voltage source. In one embodiment, the power supply is a Lithium-ion battery. Alternatively, the power supply may be a Nickel-metal hydride battery, a Nickel cadmium battery, or a Lithium based battery, for example a Lithium-Cobalt, a Lithium-Iron-Phosphate or a Lithium-Polymer battery.

[0039] The aerosol-generating device may comprise a heating element. The heating element can be any heating element described below with respect to the consumable.

[0040] The aerosol-generating device may be configured to inductively heat a cartridge of the consumable. The aerosol-generating device may comprise an inductor for inductively heating a cartridge of the consumable. The inductor may be an induction coil.

[0041] The aerosol-generating device is preferably a hand-held aerosol-generating device that is comfortable for a user to hold between the fingers of a single hand.

[0042] The aerosol-generating device may further comprise control circuitry configured to control a supply of electrical power to a heating element. The control circuitry may comprise a microprocessor. The microprocessor may be a programmable microprocessor, a microcontroller, or an application specific integrated chip (ASIC) or other electronic circuitry capable of providing control. The control circuitry may comprise further electronic components. For example, in some embodiments, the control circuitry may comprise any of: sensors, switches, display elements. The control circuitry may comprise a sensor for detecting a user puff or a pressure drop within the aerosol-generating device. Power may be supplied to the heating element in the form of pulses of electrical current, for example, by means of pulse width modulation (PWM).

[0043] The aerosol-generating device may comprise a device housing. The housing may comprise any suitable material or combination of materials. Examples of suitable materials include metals, alloys, plastics or composite materials containing one or more of those materials, or thermoplastics that are suitable for food or pharmaceutical applications, for example polypropylene, polyetheretherketone (PEEK) and polyethylene. The material is preferably light and non-brittle.

[0044] According to an aspect of the present disclosure, there is provided a consumable for an aerosol-generating device. The consumable may comprise a plurality of cartridges. Each cartridge may comprise an aerosol-forming substrate. The plurality of cartridges may be interconnected consecutively to form an elongate strip of cartridges.

[0045] According to an aspect of the present disclosure, there is provided a consumable for an aerosol-generating device. The consumable comprises a plurality of cartridges. Each cartridge comprises an aerosol-forming substrate. The

plurality of cartridges are interconnected consecutively to form an elongate strip of cartridges.

[0046] As used herein, the term "aerosol-forming substrate" refers to a material or composition that, when heated in an aerosol-generating device, releases volatile compounds that can form an aerosol.

[0047] Advantageously, by providing a consumable comprising an elongate strip of cartridges, the consumable can be advanced towards an aerosolisation zone of an aerosol-generating device in a direction parallel to a longitudinal axis of the aerosol-generating device. This allows for the use of simple linear actuators for simpler operation of the aerosol-generating device. Furthermore, an elongate strip of cartridges takes up less space than other bulkier types of consumable and can be stored along the length of the aerosol-generating device, which helps to reduce the overall size of the device and achieve a compact design.

[0048] Adjacent cartridges may be pivotally connected to one another. A pivotal connection has been found to be an effective way of interconnecting the cartridges. Furthermore, it provides flexibility to the elongate strip of cartridges so that the elongate strip of cartridges can be directed through the aerosol-generating device in a space saving configuration.

[0049] Each cartridge may be substantially flat or planar. Each cartridge may comprise a support element for supporting the aerosol-forming substrate. Each cartridge may comprise a frame for supporting the aerosol-forming substrate. The frame may be substantially flat or planar. The frame may comprise an aperture. The aperture may pass through a thickness of the frame. The aerosol-forming substrate may be arranged within the aperture. A frame has been found to be a compact and effective method of supporting an aerosol-forming substrate. The aperture within the frame provides a convenient means of storing the aerosol-forming substrate until it is aerosolised.

[0050] The aperture may define an airflow pathway through the cartridge when the aerosol-forming substrate is aerosolised. The airflow pathway through the aperture can communicate with, or be part of, an airflow pathway through the aerosol-generating device.

[0051] The consumable may comprise a plurality of support casings. Each support casing may hold a cartridge. A plurality of support casings has been found to be an effective way of holding the cartridges of the consumable.

[0052] Adjacent support casings may be interconnected by a pivot. This allows pivotal movement of a cartridge relative to the other cartridges of the consumable. Alternatively, each cartridge could be directly pivotally connected to its adjacent cartridge.

[0053] Each support casing may comprise an orientation element for correctly orienting the cartridge relative to the support casing. The orientation element reduces the likelihood of a cartridge being incorrectly located in the support casing.

[0054] The elongate strip of cartridges may comprise a continuous elongate flexible strip. The continuous elongate flexible strip may be divided along its length into a plurality of sections. Each section may define a cartridge. The elongate flexible strip provides a plurality of interconnected cartridges in which one cartridge can move relative to another so that the consumable can follow a non-linear path through an aerosol-generating device.

[0055] The elongate flexible strip may be fluid permeable. The aerosol-forming substrate may be impregnated within the fluid permeable elongate flexible strip. The aerosol-forming substrate may be deposited on the fluid permeable elongate flexible strip. The elongate flexible strip may comprise a fluid permeable material. The elongate flexible strip may comprise a mesh. The elongate flexible strip may comprise a plurality of perforations for allow a fluid to pass through the elongate flexible strip. In these arrangements, the fluid permeable elongate flexible strip provides a mechanical support for holding the aerosol-forming substrate but also allows air to pass through the elongate flexible strip to help to entrain aerosol generated by the aerosol-forming substrate in the airflow.

[0056] The elongate flexible strip may comprise a film. Each section of the film defining a cartridge may comprise an aperture. The aerosol-forming substrate may be arranged within the aperture. This has been found to be an effective arrangement for providing an elongate flexible strip of cartridges.

[0057] According to an aspect of the present disclosure, there is provided a consumable for an aerosol-generating device. The consumable may comprise a continuous elongate flexible strip. The elongate flexible strip may be divided along its length into a plurality of sections. Each section of the elongate flexible strip may define a cartridge. Each cartridge may comprise an aerosol-forming substrate.

[0058] According to an aspect of the present disclosure, there is provided a consumable for an aerosol-generating device. The consumable comprises a continuous elongate flexible strip. The elongate flexible strip is divided along its length into a plurality of sections. Each section of the elongate flexible strip defines a cartridge comprising an aerosol-forming substrate.

[0059] Advantageously, by providing a consumable comprising an elongate strip of cartridges, the consumable can be advanced towards an aerosolisation zone of an aerosol-generating device in a direction parallel to a longitudinal axis of the aerosol-generating device. This allows for the use of simple linear actuators for simpler operation of the aerosol-generating device. Furthermore, an elongate strip of cartridges takes up less space than other bulkier types of consumable and can be stored along the length of the aerosol-generating device, which helps to reduce the overall size of the device and achieve a compact design.

[0060] The elongate flexible strip may be fluid permeable. The aerosol-forming substrate may be impregnated within the fluid permeable elongate flexible strip. The aerosol-forming substrate may be deposited on the fluid permeable elongate flexible strip. The elongate flexible strip may comprise a fluid permeable material. The elongate flexible strip may comprise a mesh. The elongate flexible strip may comprise a plurality of perforations for allow a fluid to pass through the elongate flexible strip. In these arrangements, the fluid permeable elongate flexible strip provides a mechanical support for holding the aerosol-forming substrate but also allows air to pass through the elongate flexible strip to help to entrain aerosol generated by the aerosol-forming substrate in the airflow.

[0061] In examples where the elongate flexible strip comprises a mesh, the aerosol-forming substrate may be impregnated within the mesh. The aerosol-forming substrate may be deposited on the mesh. A mesh has been found to be an effective material for supporting or holding the aerosol-

forming substrate. The strands of the mesh provide a mechanical support for the aerosol-forming substrate. The interstices in the mesh can store or hold the aerosol-forming substrate. Furthermore, the mesh is fluid permeable when the aerosol-forming substrate is aerosolised and an airflow pathway can be directed through the mesh.

[0062] The elongate flexible strip may comprise a film. Each section of the film may define a cartridge. Each cartridge may comprise an aperture. The aerosol-forming substrate may be arranged within the aperture. A film has been found to be an effective material for the elongate flexible strip. The aperture within the film provides a convenient means of storing the aerosol-forming substrate until it is aerosolised. Furthermore, the aperture provides an airflow pathway through the film when the aerosol-forming substrate is aerosolised. The airflow pathway through the aperture can communicate with, or be part of, an airflow pathway through the aerosol-generating device.

[0063] The elongate flexible strip may be made from any suitable flexible material or combination of flexible materials. The elongate flexible strip may comprise a polymer such as a suitable heat resistant polymer. The elongate flexible strip may comprise a fibrous material. The elongate flexible strip may comprise paper or another cellulosic material. The elongate flexible strip may comprise a fabric. The fabric may be woven or non-woven. The elongate flexible strip may comprise a metal or metal alloy.

[0064] The elongate flexible strip may comprise an electrically resistive material such that a section of the elongate flexible strip defining a cartridge may be resistively heated.

[0065] The elongate flexible strip may comprise a susceptor. As used herein, the term "susceptor" refers to a material that is capable of converting magnetic energy into heat. When a susceptor is located in a varying magnetic field, such as a varying magnetic field generated by an inductor, the susceptor is heated. Heating of the susceptor may be the result of at least one of hysteresis losses and eddy currents induced in the susceptor material, depending on the electrical and magnetic properties of the susceptor material.

[0066] The susceptor may be, or may comprise, any material that can be inductively heated to a temperature sufficient to release volatile compounds from the aerosol-forming substrate. Preferred susceptor materials may be heated to a temperature in excess of 100, 150, 200 or 250 degrees Celsius. Preferred susceptor materials may be electrically conductive. Suitable susceptor materials include graphite, molybdenum, silicon carbide, stainless steels, niobium, aluminium, nickel, nickel containing compounds, titanium, and composites of metallic materials. Preferred susceptor materials may comprise a metal or carbon. Some preferred susceptor materials may be ferromagnetic, for example, ferritic iron, a ferromagnetic alloy, such as ferromagnetic steel or stainless steel, ferromagnetic particles, and ferrite. A susceptor material may comprise at least 5 percent, at least 20 percent, at least 50 percent or at least 90 percent of ferromagnetic or paramagnetic materials. Preferred susceptor materials may comprise, or be formed from, 400 series stainless steels, for example AISI 410, 420, or 430.

[0067] The susceptor may have any suitable form. For example, the susceptor may comprise a powder or particles, a strip, a rod, a wire, a tube, a block or a sheet. The susceptor may be fluid permeable. The susceptor may be arranged in proximity to the aerosol-forming substrate. The susceptor may be arranged within or in contact with the aerosol-forming substrate.

[0068] The elongate flexible strip may comprise a plurality of layers. The plurality of layers may be arranged as a laminate. At least one of the layers of the plurality of layers of the elongate flexible strip may be arranged to hold an aerosol-forming substrate. The at least one layer holding the aerosol-forming substrate may be fluid permeable. The at least one layer holding the aerosol-forming substrate may be sandwiched between two other layers of the elongate flexible strip. The at least one layer holding the aerosol-forming substrate may comprise an electrically resistive material such as a metal or metal alloy. The two other layers of the elongate flexible strip may be fluid permeable at least in the region of the aerosol-forming substrate.

[0069] The consumable may comprise an indexing component. The indexing component may be engaged to advance the elongate strip of cartridges in a longitudinal direction of the elongate strip.

[0070] Each cartridge may comprise at least one heating element for heating the aerosol-forming substrate. Each cartridge may comprise a plurality of heating elements for heating the aerosol-forming substrate. Alternatively, the heating element or elements may be part of the aerosol-generating device.

[0071] The one or more heating elements may comprise a resistive heating wire. The resistive heating wire may extend in curvilinear or serpentine shape across the aerosol-forming substrate.

[0072] The one or more heating elements may be arranged in proximity to, or in contact with, the aerosol-forming substrate. The at least one heating element may be arranged at a first side of a cartridge of the consumable. The at least one heating element may be arranged at at two opposing sides of a cartridge of the consumable, for example, by wrapping the at least one heating element around at least one edge of the cartridge. The at least one heating element may be arranged within the aerosol-forming substrate.

[0073] The one or more heating elements may comprise an array of filaments or a fabric of filaments. The one or more heating elements may comprise a mesh. The mesh may be woven or non-woven. The mesh may be formed using different types of weave or lattice structures. The at least one heating element may be constructed from a wire that is formed into a wire mesh.

[0074] The one or more heating elements may comprise a heating plate or membrane in which an array of apertures is formed. The apertures may be formed by any suitable process, for example, by etching or machining.

[0075] The heating element or elements may comprise an electrically resistive material. Suitable electrically resistive materials include but are not limited to: semiconductors such as doped ceramics, electrically "conductive" ceramics (such as, for example, molybdenum disilicide), carbon, graphite, metals, metal alloys and composite materials made of a ceramic material and a metallic material. Such composite materials may comprise doped or undoped ceramics. Examples of suitable doped ceramics include doped silicon carbides. Examples of suitable metals include titanium, zirconium, tantalum and metals from the platinum group. Examples of suitable metal alloys include stainless steel, nickel-, cobalt-, chromium-, aluminium-titanium-zirconium-, hafnium-, niobium-, molybdenum-, tantalum-, tung-

sten-, tin-, gallium-, manganese-, gold- and iron-containing alloys, and super-alloys based on nickel, iron, cobalt, stainless steel, Timetal™, Kanthal™ and other iron-chromium-aluminium alloys, and iron-manganese-aluminium based alloys. In composite materials, the electrically resistive material may optionally be embedded in, encapsulated or coated with an insulating material or vice-versa, depending on the kinetics of energy transfer and the external physico-chemical properties required.

[0076] The one or more heating elements may be formed using a metal or metal alloy having a defined relationship between temperature and resistivity. Heating elements formed in this manner may be used to both heat and monitor the temperature of the heating element during operation.

[0077] The one or more heating elements may comprise a susceptor. The susceptor may be, or may comprise, any material that can be inductively heated to a temperature sufficient to release volatile compounds from the aerosol-forming substrate. Preferred susceptor materials may be heated to a temperature in excess of 100, 150, 200 or 250 degrees Celsius. Preferred susceptor materials may be electrically conductive. Suitable susceptor materials include graphite, molybdenum, silicon carbide, stainless steels, niobium, aluminium, nickel, nickel containing compounds, titanium, and composites of metallic materials. Preferred susceptor materials may comprise a metal or carbon. Some preferred susceptor materials may be ferromagnetic, for example, ferritic iron, a ferromagnetic alloy, such as ferromagnetic steel or stainless steel, ferromagnetic particles, and ferrite. A susceptor material may comprise at least 5 percent, at least 20 percent, at least 50 percent or at least 90 percent of ferromagnetic or paramagnetic materials. Preferred susceptor materials may comprise, or be formed from, 400 series stainless steels, for example AISI 410, 420, or 430.

[0078] The aerosol-forming substrate may be substantially flat. The aerosol-forming substrate may be formed as a substantially flat tablet. This increases the surface area of the aerosol-forming substrate available for heating and helps to increase the speed of vaporisation.

[0079] The aerosol-forming substrate may be fluid permeable. This allows a user to draw air through the aerosol-forming substrate during aerosolisation to help entrain the generated aerosol in the airflow.

[0080] The aerosol-forming substrate may comprise a solid. The aerosol-forming substrate may comprise a liquid. The aerosol-forming substrate may comprise a gel. The aerosol-forming substrate may comprise any combination of two or more of a solid, a liquid and a gel. The aerosol-forming substrate may comprise a powder. The aerosol-forming substrate may comprise aerosol-forming beads.

[0081] The aerosol-forming substrate may comprise nicotine, a nicotine derivative or a nicotine analogue. The aerosol-forming substrate may comprise one or more nicotine salt. The one or more nicotine salt may be selected from the list consisting of nicotine citrate, nicotine lactate, nicotine pyruvate, nicotine bitartrate, nicotine pectates, nicotine aginates, and nicotine salicylate.

[0082] The aerosol-forming substrate may comprise an aerosol former. As used herein, an "aerosol former" is any suitable known compound or mixture of compounds that, in use, facilitates formation of a dense and stable aerosol and that is substantially resistant to thermal degradation at the operating temperature of the aerosol-generating device. Suitable aerosol-formers are well known in the art and include, but are not limited to: polyhydric alcohols, such as triethylene glycol, 1,3-butanediol and glycerine; esters of polyhydric alcohols, such as glycerol mono-, di- or triacetate; and aliphatic esters of mono-, di- or polycarboxylic acids, such as dimethyl dodecanedioate and dimethyl tetradecanedioate. Preferred aerosol formers are polyhydric alcohols or mixtures thereof, such as triethylene glycol, 1,3-butanediol and glycerine.

[0083] The aerosol-forming substrate may further comprise a flavourant. The flavourant may comprise a volatile flavour component. The flavourant may comprise menthol. As used herein, the term 'menthol' denotes the compound 2-isopropyl-5-methylcyclohexanol in any of its isomeric forms. The flavourant may provide a flavour selected from the group consisting of menthol, lemon, vanilla, orange, wintergreen, cherry, and cinnamon. The flavourant may comprise volatile tobacco flavour compounds which are released from the substrate upon heating.

[0084] The aerosol-forming substrate may further comprise tobacco or a tobacco containing material. For example, the aerosol-forming substrate may comprise any of: tobacco leaf, fragments of tobacco ribs, reconstituted tobacco, homogenised tobacco, extruded tobacco, tobacco slurry, cast leaf tobacco and expanded tobacco. Optionally, the aerosol-forming substrate may comprise tobacco powder compressed with an inert material, for example, glass or ceramic or another suitable inert material.

[0085] In cases where the aerosol-forming substrate comprises a liquid or a gel, in some embodiments, the cartridge may comprise an absorbent carrier. The aerosol-forming substrate may be coated on or impregnated into the absorbent carrier. For example, the nicotine compound and the aerosol-former may be combined with water as a liquid formulation. The liquid formulation may, in some embodiments, further comprise a flavourant. Such a liquid formulation may then be absorbed by the absorbent carrier or coated onto the surface of the carrier. The absorbent carrier may be a sheet of cellulosic-based material onto which the nicotine compound and the aerosol former may be coated or absorbed. For example, the absorbent carrier may be a sheet or strip of paper.

[0086] Each cartridge may comprise a single metered-dose of an aerosol-forming substrate. As used herein, the term "metered-dose" refers to a measured or predetermined amount of an aerosol-forming substrate. The metered-dose corresponds to a dose of aerosol-forming substrate to be delivered to a user during a single inhalation or puff.

[0087] An average puff volume for an adult user will depend on the type of device and consumable being used but is typically in the range of about 35 ml to 550 ml. Optionally, the aerosol-forming substrate may comprise about 2 to 30 mg of tobacco, more particularly about 3 to 20 mg of tobacco, more particularly about 3 to 9 mg of tobacco and yet more particularly about 4 to 8 mg of tobacco. Optionally, the aerosol-forming substrate may comprise about 80 to 120 μg, more particularly about 90 to 110 μg, and yet more particularly about 100 μg, of nicotine, a nicotine derivative or a nicotine analogue. Optionally, the aerosol-forming substrate may comprise about 6 to 20% aerosol-former by weight. Optionally, the aerosol-forming substrate may comprise about 300 to 1250 μg and more particularly about 675 to 875 μg of aerosol former. These have been found to be suitable amounts of tobacco, nicotine and aerosol-former respectively for a single puff or inhalation or dose.

[0088] Advantageously, by each cartridge comprising a single metered-dose of an aerosol-forming substrate, a user is able to accurately determine and control the amount of aerosol-forming substrate that they receive. The user knows how much aerosol-forming substrate a cartridge comprises and therefore how much aerosol or how much of one or more aerosol components is delivered during a single inhalation or puff. The amount of aerosol generated and hence the aerosol components is fixed by the cartridge having a metered-dose or predetermined amount of aerosol-forming substrate.

[0089] Each cartridge may be a single-use cartridge. As used herein, the term 'single-use' refers to a cartridge which is configured to be used for only a single puff or inhalation before being discarded. Each time a user takes a puff or inhales via the aerosol-generating device, a fresh cartridge is used. This provides for highly repeatable generation of aerosol and reduces the variability in aerosol generation which may be encountered over successive uses of an aerosol-generating device having a cartridge or reservoir with sufficient aerosol-forming substrate for more than one use. A single-use cartridge also reduces the requirement to maintain or monitor parts of the aerosol-generating device such as the heating element which may degrade over time or become coated with residues.

[0090] According to an aspect of the present disclosure, there is provided an aerosol-generating system comprising an aerosol-generating device according to any of the above-described examples and a consumable according to any of the above-described examples.

[0091] Features described in relation to one of the above examples may equally be applied to other examples of the present disclosure.

[0092] The invention is defined in the claims. However, below there is provided a non-exhaustive list of non-limiting examples. Any one or more of the features of these examples may be combined with any one or more features of another example, embodiment, or aspect described herein.

[0093] Example Ex1: An aerosol-generating device comprising: an air inlet and an aerosol outlet, the air inlet being in fluid communication with the aerosol outlet to define an airflow pathway through the aerosol-generating device; an aerosolisation zone for aerosolising the aerosol-forming substrate comprised in each cartridge, wherein at least a portion of the aerosolisation zone is arranged within the airflow pathway; a holder for receiving and holding a cartridge comprising an aerosol-forming substrate.

[0094] Example Ex2: An aerosol-generating device according to Example Ex1, wherein the holder is configured to receive and hold a consumable comprising a plurality of cartridges arranged consecutively to form an elongate strip of cartridges, each cartridge in the elongate strip of cartridges comprising an aerosol-forming substrate.

[0095] Example Ex3: An aerosol-generating device according to Example Ex1 or Ex2, comprising an indexing mechanism for advancing the elongate strip of cartridges a predetermined distance towards the aerosolisation zone in a direction parallel to a longitudinal axis of the aerosol-generating device such that each cartridge successively enters the aerosolisation zone.

[0096] Example Ex4: An aerosol-generating device according to any of Examples Ex1 to Ex3, wherein the predetermined distance corresponds to a length of a single cartridge in a longitudinal direction of the consumable.

[0097] Example Ex5: An aerosol-generating device according to any of Examples Ex1 to Ex4, wherein the aerosol-generating device is configured to arrange a cartridge transversely across the airflow channel when a cartridge is located in the aerosolisation zone.

[0098] Example Ex6: An aerosol-generating device according to any of Examples Ex1 to Ex5, wherein the airflow pathway of the aerosol-generating device is arranged to be in fluid communication with an airflow pathway of a cartridge when a cartridge is located in the aerosolisation zone.

[0099] Example Ex7: An aerosol-generating device according to any of Examples Ex1 to Ex6, wherein the holder comprises a first elongate guide for holding a first portion of the elongate strip of cartridges, the first portion comprising unused cartridges.

[0100] Example Ex8: An aerosol-generating device according to Example Ex7, wherein the first elongate guide is arranged to direct unused cartridges towards the aerosolisation zone.

[0101] Example Ex9: An aerosol-generating device according to any of Examples Ex1 to Ex8, wherein the holder comprises a second elongate guide for holding a second portion of the elongate strip of cartridges, the second portion comprising used cartridges.

[0102] Example Ex10: An aerosol-generating device according to Example Ex9, wherein the second elongate guide is arranged to direct used cartridges away from the aerosolisation zone.

[0103] Example Ex11: An aerosol-generating device according to Example Ex9 or Ex10, wherein the aerosolisation zone is disposed between the first and second elongate guides.

[0104] Example Ex12: An aerosol-generating device according to Example Ex10 or Ex11, wherein the first elongate guide directs the unused cartridges in a first direction towards the aerosolisation zone and the second elongate guide directs the used cartridges in a second direction away from the aerosolisation zone, the second direction being opposite to the first direction.

[0105] Example Ex13: An aerosol-generating device according to Example Ex12, wherein the first and second directions are parallel to a longitudinal axis of the aerosol-generating device.

[0106] Example Ex14: An aerosol-generating device according to any of Examples Ex9 to Ex13, wherein the first and second elongate guides are arranged parallel to a longitudinal axis of the aerosol-generating device.

[0107] Example Ex15: An aerosol-generating device according to any of Examples Ex1 to Ex14, wherein the indexing mechanism comprises a slider configured to engage an indexing component on the consumable, wherein the slider can be actuated by a user to advance a cartridge into the aerosolisation zone.

[0108] Example Ex16: An aerosol-generating device according to Example Ex15, wherein the slider is resiliently biased towards a first position, and wherein the slider is moveable against the resilient bias to a second position in which an unused cartridge is located within the aerosolisation zone.

[0109] Example Ex17: An aerosol-generating device according to Example Ex15 or Ex16, wherein the slider comprises a contact pad for making electrical contact with a heating element.

[0110] Example Ex18: An aerosol-generating device according to any of Examples Ex1 to Ex17, wherein the airflow pathway between the aerosol outlet and the aerosolisation zone is flexible.

[0111] Example Ex19: An aerosol-generating device according to any of Examples Ex1 to Ex18, wherein the airflow pathway between the aerosol outlet and the aerosolisation zone comprises a corrugated tube.

[0112] Example Ex20: An aerosol-generating device according to any of Examples Ex15 to Ex19, wherein a first end of the airflow pathway between the aerosol outlet and the aerosolisation zone is connected to the aerosol outlet and a second end of the airflow pathway between the aerosol outlet and the aerosolisation zone is connected to the slider.

[0113] Example Ex21: An aerosol-generating device according to any of Examples Ex1 to Ex6, wherein the holder comprises a spool for holding the elongate strip of cartridges.

[0114] Example Ex22: An aerosol-generating device according to Example Ex21, wherein the aerosol-generating device further comprises an indexing spool for advancing the elongate strip of cartridges a predetermined distance towards the aerosolisation zone.

[0115] Example Ex23: An aerosol-generating device according to Example Ex22, wherein the elongate strip of cartridges is wound as a continuous loop around the indexing spool and a tensioning spool.

[0116] Example Ex24: An aerosol-generating device according to Example Ex21 or Ex22, wherein the aerosol-generating device comprises a first spool for storing unused cartridges and a second spool for storing used cartridges.

[0117] Example Ex25: An aerosol-generating device according to any of Examples Ex1 to Ex24, wherein the holder is contained within a cassette, wherein the cassette is removably attached to the aerosol-generating device.

[0118] Example Ex26: A consumable for an aerosol-generating device, the consumable comprising a plurality of cartridges, each cartridge comprising an aerosol-forming substrate.

[0119] Example Ex27: A consumable according to Example Ex26, wherein the plurality of cartridges are interconnected consecutively to form an elongate strip of cartridges.

[0120] Example Ex28: A consumable according to Example Ex27, wherein adjacent cartridges are pivotally connected to one another.

[0121] Example Ex29: An aerosol-generating device according to any of Examples Ex26 to Ex28, wherein each cartridge comprises a frame having an aperture which passes through a thickness of the frame, and wherein the aerosol-forming substrate is arranged within the aperture.

[0122] Example Ex30: A consumable according to Example Ex29, wherein the aperture defines an airflow pathway through the cartridge when the aerosol-forming substrate is aerosolised.

[0123] Example Ex31: A consumable according to Example Ex29 or Ex30, comprising a plurality of support casings, wherein each support casing holds a cartridge.

[0124] Example Ex32: A consumable according to Example Ex31, wherein adjacent support casings are interconnected by a pivot.

[0125] Example Ex33: A consumable according to Example Ex31 or Ex32, wherein each support casing comprises an orientation element for correctly orienting the cartridge relative to the support casing.

[0126] Example Ex34: A consumable according to any of Examples Ex26 to Ex28, wherein the elongate strip of cartridges comprises a continuous elongate flexible strip divided along its length into a plurality of sections, wherein each section defines a cartridge.

[0127] Example Ex35: A consumable according to Example Ex34, wherein the elongate flexible strip is fluid permeable and the aerosol-forming substrate is impregnated within, or deposited on, the fluid permeable elongate flexible strip.

[0128] Example Ex36: A consumable according to Example Ex34 or Ex35, wherein the elongate flexible strip comprises a mesh.

[0129] Example Ex37: A consumable according to Example Ex34, wherein the elongate flexible strip comprises a film and each section of the film defining a cartridge comprises an aperture, and wherein the aerosol-forming substrate is arranged within the aperture.

[0130] Example Ex38: A consumable for an aerosol-generating device, the consumable comprising a continuous elongate flexible strip, wherein the elongate flexible strip is divided along its length into a plurality of sections, and wherein each section of the elongate flexible strip defines a cartridge comprising an aerosol-forming substrate.

[0131] Example Ex39: A consumable according to Example Ex38, wherein the elongate flexible strip is fluid permeable and the aerosol-forming substrate is impregnated within, or deposited on, the fluid permeable elongate flexible strip.

[0132] Example Ex40: A consumable according to Example Ex38 or Ex39, wherein the elongate flexible strip comprises a mesh.

[0133] Example Ex41: A consumable according to Example Ex38, wherein the elongate flexible strip comprises a film and each section of the film defining a cartridge comprises an aperture, and wherein the aerosol-forming substrate is arranged within the aperture.

[0134] Example Ex42: A consumable according to any of Examples Ex26 to Ex41, wherein the consumable comprises an indexing component which can be engaged to advance the elongate strip of cartridges in a longitudinal direction of the elongate strip.

[0135] Example Ex43: A consumable according to any of Examples Ex26 to Ex42, wherein the aerosol-forming substrate is substantially flat.

[0136] Example Ex44: A consumable according to any of Examples Ex26 to Ex43, wherein each cartridge comprises at least one heating element for heating the aerosol-forming substrate.

[0137] Example Ex45: A consumable according to Example Ex44, wherein the at least one heating element comprises a resistive heating wire or a mesh.

[0138] Example Ex46: A consumable according to any of Examples Ex26 to Ex45, wherein each cartridge comprises a single metered dose of an aerosol-forming substrate.

[0139] Example Ex47: An aerosol-generating system comprising: an aerosol-generating device according to any of Examples Ex1 to Ex25; and a consumable according to any of Examples Ex26 to Ex46.

[0140] Examples will now be further described with reference to the figures in which:

[0141] FIG. **1**A is a perspective view of a cartridge for a consumable according to an example of the present disclosure. In FIG. **1**A, the cartridge is shown in disassembled form.

[0142] FIG. **1**B is a perspective view of the cartridge of FIG. **1**A showing the cartridge in assembled form.

[0143] FIG. **2**A is a perspective view of a consumable according to an example of the present disclosure comprising a plurality of interconnected cartridges.

[0144] FIG. **2**B is an enlarged view of part of the consumable of FIG. **2**A.

[0145] FIGS. **3**A to **3**D show different ways of interconnecting the cartridges of a consumable.

[0146] FIG. **4**A shows another example of a consumable comprising a plurality of interconnected cartridges.

[0147] FIG. **4**B is an enlarged view of the part of the consumable surrounded by a circle labelled A in FIG. **4**A and shows the interconnection between two cartridges in more detail.

[0148] FIG. **5**A is a schematic plan view of an interior of an aerosol-generating device according to an example of the present disclosure.

[0149] FIG. **5**B is a schematic longitudinal view of the interior of the aerosol-generating device of FIG. **5**A.

[0150] FIG. **6**A is a perspective view from above of a holder for an aerosol-generating device according to an example of the present disclosure.

[0151] FIG. **6**B is an enlarged view of a proximal end of the holder of FIG. **6**A in which the holder is holding a consumable.

[0152] FIG. **7**A is a cutaway side view of part of the aerosol-generating device of FIG. **5**A showing an indexing mechanism in a first position.

[0153] FIG. **7**B is a cutaway side view of part of the aerosol-generating device of FIG. **5**A showing an indexing mechanism in a second position.

[0154] FIGS. **8**A to **8**D are a sequence of schematic views showing the advancement of two cartridges of a consumable through an aerosolisation zone of an aerosol-generating device.

[0155] FIG. **9**A is a view from a proximal end of the aerosol-generating device of FIG. **5**A with the mouthpiece removed.

[0156] FIG. **9**B is a perspective view of an example electrical connector for making electrical contact with a heating element of a cartridge.

[0157] FIG. **10** is a schematic perspective view of a consumable according to another example of the present disclosure, in which the consumable comprises an elongate flexible strip.

[0158] FIG. **11** is a schematic perspective view of a consumable according to another example of the present disclosure, in which the consumable comprises an elongate flexible strip.

[0159] FIG. **12**A shows a schematic perspective view of a cassette for an aerosol-generating device in which the cassette comprises the consumable of FIG. **11**.

[0160] FIG. **12**B shows a schematic perspective cutaway view of an aerosol-generating device according to another example of the present disclosure, which aerosol-generating device is configured for use with the cassette of FIG. **12**A.

[0161] Referring to FIG. **1**A, there is shown a cartridge **1** in disassembled form. The cartridge **1** comprises a single metered-dose of aerosol-forming substrate **2** and a frame **4**, which acts as a mechanical support or support element for holding the aerosol-forming substrate **2**. In this example, the single metered-dose of aerosol-forming substrate **2** corresponds to a dose of aerosol-forming substrate to be delivered to a user during a single inhalation or puff. The aerosol-forming substrate **2** is provided in a flattened or tablet form to increase the surface area of the aerosol-forming substrate available to be heated and to make it easier to vaporise. The frame **4** is flattened or pallet-shaped and, in this example, is similar in shape and size to a SIM (Subscriber Identity Module) card for a mobile phone. The frame **4** comprises an aperture **6** which passes through the thickness of the frame **4** to provide fluid communication between a first major side **4***a* of the frame **4** and a second major side **4***b* of the frame **4**. When the cartridge **1** is assembled, the aerosol-forming substrate **2** is received within the aperture **6**.

[0162] Although FIG. **1**A shows the aerosol-forming substrate **2** as a preformed tablet for insertion into the aperture **6**, it will be appreciated that the aerosol-forming substrate could be received in the aperture **6** in different ways. For example, the aperture could act as a mould and the aerosol-forming substrate **2** could be poured into the mould as a liquid slurry, where it may set or cure to form a solid or the aerosol-forming substrate could comprise a viscous liquid or gel which is retained in the aperture by its own viscosity or by the cartridge **1**. Alternatively, the aperture **6** could receive the aerosol-forming substrate **2** in the form of a powder or beads.

[0163] The cartridge **1** also comprises a heating element **8** for vaporising the aerosol-forming substrate **2**. In FIG. **1**A, the heating element **8** is a stainless steel mesh which is wrapped around a side of the cartridge **1** to cover both first **4***a* and second **4***b* major surfaces of the frame **4**. This arrangement allows the heating element **8** to heat both sides of the aerosol-forming substrate **2** to help increase the speed of vaporisation of the aerosol-forming substrate **2**. It will be appreciated that other forms of heating element could be used, for example, a resistive wire. The heating element **8** also helps to provide mechanical support to retain the aerosol-forming substrate **2** in the cartridge **1**.

[0164] A groove or recess **10** is formed in one of the sides of the frame **4**. The groove **10** is arranged to cooperate with an orientation element formed on another part or component of a consumable or aerosol-generating device to correctly orientate the cartridge relative to the consumable or aerosol-generating device.

[0165] FIG. **1**B shows the cartridge **1** of FIG. **1**A in assembled form. The heating element **8** has been wrapped around the frame **4** and covers the aperture **6** holding the aerosol-forming substrate **2** and the frame **4**, with the exception of the part of the frame **4** containing the groove **10**. In the example of FIG. **1**B, the aperture **6** is not arranged centrally within the frame but is offset towards an edge of the frame **4**. The heating element **8** comprises an electrical contact region **12** for making electrical contact with the heating element **8**. The electrical contact region **12** of the heating element **8** overlies a portion of the frame **4** between the groove **10** and aperture **6**.

[0166] FIG. **2**A is a perspective view of a consumable **100** comprising a plurality of cartridges **1** which are interconnected consecutively to form an elongate strip of cartridges

1. The consumable **100** comprises a plurality of cartridge casings or support casings **102**. Each support casing holds a cartridge **1** as generally described with reference to FIGS. **1**A and **1**B above, although the aerosol-forming substrate and heating element of the cartridge **1** are not shown in FIG. **2**A for clarity. Furthermore, in FIG. **2**A, only one cartridge **1** is shown to allow the details of the support casings **102** to be seen. However, it will be appreciated that each support casing **102** can hold a cartridge **1**. As can be seen in FIG. **2**A, there are eight support casings **102** and therefore the consumable of this particular example is able to hold eight cartridges **1** and provide a user with eight inhalations or puffs of aerosol.

[0167] FIG. **2**B shows an enlarged view of part of the consumable **100** of FIG. **2**A in more detail. A cartridge **1** is arranged within support casing **102***a*. As discussed above with reference to FIG. **2**A, only one cartridge is shown in FIG. **2**B. However, it will be appreciated that each support casing **102** can hold a cartridge **1**. For clarity, the cartridge **1** in FIG. **2**B is shown without its aerosol-forming substrate and heating element.

[0168] Each support casing **102** comprises a substantially flat or planar structure or tray-like structure have a raised rim **103** arranged around its periphery. The raised rim **103** defines a sunken or depressed region **105** for receiving a cartridge **1**. A periphery of each cartridge **1** forms an interference fit with an internal surface of the raised rim of each support casing **102** to retain the cartridges **1** in the support cases **102**. Each support casing **102** comprises an casing aperture **104** which is disposed such that it aligns with the aperture **6** located in the cartridge **1** when a cartridge is received in the support casing **102**.

[0169] The leading edge of each support casing **102** comprises an indexing component **106** which is arranged to engage or cooperate with an indexing mechanism of an aerosol-generating device so that the consumable **100** can be advanced a predetermined distance in a direction parallel to the longitudinal axis of the elongate strip of cartridges **1**. As used herein, the term "leading edge" refers to a foremost edge in a direction of intended travel. As used herein, the term "trailing edge" refers to a rear edge facing away from a direction of intended travel. Each support casing **102** also comprises an orientation element **108** for correctly orienting each cartridge **1** relative to its respective support casing **102**. Each orientation element **108** comprises a key or spline formed in the raised rim **103** of each support casing and is configured to engage or cooperate with the groove **10** formed in each cartridge **1**. The orientation element **108** prevents a cartridge **1** from being inserted into a support casing **102** in an incorrect orientation. The orientation element **108** also exerts an inwards pressure towards the cartridge **1** and helps to retain it within its respective support casing **102**.

[0170] Each support casing **102** is pivotally connected to an adjacent support casing **102** by means of a pivot **110**. In any pair of adjacent support casings **102**, a leading edge of one support casing **102** is pivotally connected to the trailing edge of an adjacent support casing **102** by means of a pivot. The pivotal connections between adjacent support casings **102** allows a support casing **102** to rotate relative to its adjacent support casing **102** about an axis parallel to the interconnected leading and trailing edges of the support casings **102**. This allows the consumable **100** to deform and be directed through an aerosol-generating device in a space efficient manner. A part of each pivot **110** extends laterally outwards from the sides of the consumable to provide a series of projections which can be used to engage components of an aerosol-generating device, as discussed further below.

[0171] FIGS. **3**A to **3**D show different ways of interconnecting the cartridges or support casings of a consumable. FIGS. **3**A to **3**D will be described with reference to ways of interconnecting cartridges but it will be appreciated that these techniques could equally be applied to support casings for holding cartridges.

[0172] FIG. **3**A shows part of an arrangement **200** comprising a first cartridge **202** and a second cartridge **204** which are interconnected by means of a pivot **206**. A leading edge of the second cartridge **204** has a pair of arms **208** (only one arm shown in FIG. **3**A) which extend on either side of a leading edge of the second cartridge **204**. The arms **208** cooperate with corresponding recesses (only one recess shown in FIG. **3**A) formed on the trailing edge of the first cartridge **202**. The pivot **206** is in the form of a pin which passes through the arms **208** and a trailing portion of the first cartridge **202**.

[0173] FIG. **3**B shows part of an arrangement **300** comprising a first cartridge **302** and a second cartridge **304** which are interconnected by means of a pivot **306**. In FIG. **3**B, the first cartridge **302** is shown in transparent outline so that the pivot **306** is visible. A leading edge of the second cartridge **304** has a pair of recesses **310** (only one recess shown in FIG. **3**B) which formed on either side of a leading edge of the second cartridge **304**. The first cartridge **302** has a pair of arms (only one arm shown in FIG. **3**B) which extend on either side of a trailing edge of the first cartridge **302** and which cooperate with recesses **310**. The pivot **306** takes the form of hemispherical protrusions which extend from lateral outwardly facing side surfaces of the recesses **310** and which engage corresponding depressions formed on laterally inwardly facing surfaces of the arms **308**.

[0174] FIG. **3**C shows part of an arrangement **400** comprising a first cartridge **402** and a second cartridge **404** which are interconnected by means of separate links **403** on either side of the cartridges (only one link shown in FIG. **3**C). Either side of the trailing edges or the first cartridge **402** are formed with recesses **408** (only one recess shown in FIG. **3**C) and corresponding recesses **410** (only one recess shown in FIG. **3**C) are formed on either side of the leading edge of the second cartridge **404**. One end of the link **403** is located in recess **408** and the other end of the link is located in recess **410**. Each end of the link **403** is pivotally connected to it respective cartridge by a pivot pin **406**.

[0175] FIG. **3**D shows part of an arrangement **500** comprising a first cartridge **502** and a second cartridge **504** which are interconnected by means of a flexible strip **606**. The flexible strip **506** is made from a flexible material such as a suitable polymer or elastomer. One end of the flexible strip **506** is connected to a trailing edge of the first cartridge **502** and the other end of the flexible strip **506** is connected to a leading edge of the second cartridge **504**. The flexible strip is able to deform and therefore provides for pivotal movement about the axis of interconnection of the first **502** and second **504** cartridges.

[0176] FIG. **4**A is a schematic view of another example of a consumable **600** comprising a plurality of interconnected cartridges **602**. A lower surface (not shown) of each cartridge **602** is mounted onto a flexible elongate strip or

webbing backing. Any suitable mounting technique may be used, for example, an adhesive. The webbing backing is relatively flexible compared to the cartridges **602** and provides for pivotal movement of the cartridges about the line of interconnection between the cartridges.

[0177] FIG. **4**B is an enlarged view of the part of the consumable surrounded by a circle labelled A in FIG. **4**A and shows the interconnection between two cartridges in more detail. As can be seen in FIG. **4**B, the cartridges **602** are mounted on a webbing backing **604** which allows the consumable **600** to deform by providing pivotal movement between the cartridges about an axis transverse to the longitudinal axis of the consumable **600**.

[0178] FIG. **5**A is a schematic plan view of an interior of an aerosol-generating device **700** for use with a consumable **100** comprising a plurality of cartridges **1** arranged consecutively to form an elongate strip of cartridges **1**. The consumable **100** used in the example of FIG. **5**A is the same as described above with respect to FIGS. **2**A and **2**B. The aerosol-generating device **700** comprises a main housing or main body part **702** and a mouthpiece **704**. The main body part **702** comprises a holder **706** for receiving and holding the elongate strip of cartridges **1**.

[0179] The aerosol-generating device **700** comprises an air inlet **708** arranged at a distal end of the main body part **702** and an aerosol outlet **710** arranged at a proximal end of the mouthpiece **704**. An airflow channel **712** connects the air inlet **708** and aerosol outlet **710** and provides for fluid communication between the air inlet **708** and aerosol outlet **710**. The airflow channel **712** defines an airflow pathway **713** through the aerosol-generating device **700**. A power supply **714** for supplying electrical power to the heating element (not shown) of each of the cartridges **1** is also provided within the main body part **702**. In this example, the power supply **714** is a lithium ion battery, although other suitable types of battery may be used. In addition, the aerosol-generating device comprises control circuitry (not shown) for controlling the supply of electrical power from the power supply **714** to the heating element of each cartridge. The airflow channel **712** is offset from the central longitudinal axis X-X of the aerosol-generating device **700**. This allows the power supply **714** to be accommodated next to the airflow channel **712** within the holder **706**, which helps to reduce the overall size of the aerosol-generating device **700** and achieve a compact design.

[0180] An aerosolisation zone **716** for aerosolising the aerosol-forming substrate (not shown) comprised in each cartridge **1** is provided at a proximal end of the holder **706**. The aerosolisation zone **716** is arranged within the airflow pathway **713** and is in fluid communication with the airflow channel **712**. As can be seen in FIG. **5**A, the airflow channel **712** is aligned with the aperture **6** of each cartridge **1**. When a cartridge **1** is located in the aerosolisation zone **716** the aperture **6** of the cartridge is arranged within the airflow channel **712** and air is able to flow through the aperture **6** as the aerosol-forming substrate is aerosolised to entrain the generated aerosol in the airflow. The aerosol is then conveyed along the airflow channel **712** to the aerosol outlet **710** in the mouthpiece **704**.

[0181] The aerosol-generating device **700** further comprises an indexing mechanism **718** for advancing the elongate strip of cartridges **1** a predetermined distance along the holder **706** towards the aerosolisation zone **716** in a direction parallel to a longitudinal axis X-X of the aerosol-generating device **700** such that each cartridge **1** successively enters the aerosolisation zone **716**. The indexing mechanism **718** comprises a slider **720** which is configured to engage the elongate strip of cartridges **1** to advance a cartridge into the aerosolisation zone **716** in a step-wise fashion, as discussed in more detail below. The slider **720** comprises a button **722** which protrudes from an upper surface of the slider **720** and which can be actuated by a user. The button **722** is received within a slot **724** (shown in dotted outline in FIG. **5**A) which extends parallel to the longitudinal axis X-X of the aerosol-generating device **700** and is formed in the upper part of the housing of the main body part **702**. The button **722** is constrained to move within the slot **724** and acts as a linear actuator for moving the elongate strip of cartridges **100** along the holder **706**.

[0182] A final section of the air channel **712** between the aerosolisation zone **716** and the aerosol outlet **710** is formed as a flexible corrugated tube **726**. A distal end of the flexible corrugated tube **726** is connected to the slider **720**. The flexible corrugated tube **726** is compressible or can otherwise deform to accommodate the linear movement of the slider **722**. It will be appreciated that flexible conduits other than a flexible corrugated tube may be used in the aerosol-generating device. For example, a straight flexible tube such as a silicone tube has been found to also be effective.

[0183] FIG. **5**B is a schematic longitudinal view of the interior of the aerosol-generating device of FIG. **5**A. The holder **706** comprises a first elongate guide **728** for holding a portion of the consumable (not shown in FIG. **5**B but see FIG. **5**A) comprising unused cartridges. The first elongate guide **728** is arranged in an upper part of the holder **706**, as shown in FIG. **5**B, and is arranged to direct unused cartridges towards the aerosolisation zone **716**. The holder **706** also comprises a second elongate guide **730** for holding a portion of the consumable comprising used cartridges. The second elongate guide **730** is arranged in a lower part of the holder **706**, as shown in FIG. **5**B, and is arranged to direct used cartridges away from the aerosolisation zone **716**. Therefore, once a cartridge has been used by aerosolising its aerosol-forming substrate within the aerosolisation zone **716**, the cartridge can be ejected from the aerosolisation zone **716** and used cartridges can be stored along the second elongate guide **730** until the all the cartridges within the consumable have been expended.

[0184] The airflow channel **712** of the aerosol-generating device **700** is arranged to reduce the risk of the aerosol generated in the aerosolisation zone **716** contaminating the unused cartridges being held on the first elongate guide **728** of the holder **706**. The aerosolisation zone **716** is arranged downstream of the first elongate guide **728** which further helps to reduce the risk of the aerosol generated in the aerosolisation zone **716** contaminating the unused cartridges being held on the first elongate guide **728**. In addition, the used cartridges are stored on the second elongate guide **730**, which is separate and spaced apart from the first elongate guide **728**, which helps to reduce the risk of used cartridges contaminating the unused cartridges being held on the first elongate guide **728**.

[0185] The first **728** and second **730** elongate guides are arranged parallel to one another and parallel to the longitudinal axis of the aerosol-generating device **700**. Due to the flexible nature of the consumable **100**, once a cartridge **1** has passed through the aerosolisation zone **716** its direction of travel reveres and it passes along the second elongate guide

730 in an opposition direction to which it travelled along the first elongate guide 728. This represents a particularly space efficient arrangement and helps to reduce the overall length of the aerosol-generating device 700.

[0186] The slider 720 is resiliently biased towards a first position or resting position by a spring 732. The slider 720 is moveable against the resilient bias of the spring 732 to a second position or advanced position in which an unused cartridge is located within the aerosolisation zone 716. This action is discussed in more detail below. The button 722 of the slider 720 extends above a depression formed in the upper part of the housing of the main body part 702 so that it can be actuated by a user.

[0187] FIG. 6A shows a perspective view from above of the holder 706 of the aerosol-generating device 700 of FIGS. 5A and 5B in more detail. The holder 706 comprises a first elongate guide 728 arranged in an upper part of the holder 706 to receive unused cartridges and direct unused cartridges towards the aerosolisation zone 716. The holder 706 further comprises a second elongate guide 730 (not visible in FIG. 6A) arranged in a lower part of the holder 706 to receive used cartridges and direct used cartridges away from the aerosolisation zone 716. The aerosolisation zone 716 is arranged between the first 728 and second 730 elongate guides at a proximal end of the part of the airflow channel 712 which passes through the holder 706. In the aerosolisation zone, a cartridge (not shown) engages with the proximal end of the part of the airflow channel 712 which passes through the holder 706.

[0188] The first elongate guide 728 comprises an first or upper support surface 734 which supports the unused cartridges of consumable (not shown). The second elongate guide 728 comprises a second or lower support surface (not shown) which supports the used cartridges of consumable (not shown). The sidewalls 736 of the holder 706 extend above the first support surface 734 and below the second support surface to provide a pair of longitudinally extending rails around the periphery of the holder 706 which help to retain the consumable on the first 734 and second 736 support surfaces. An inward facing surface of the sidewalls 736 extending above and below the first 734 and second 736 support surfaces respectively comprises a groove (not shown but see FIG. 7A) which extends parallel the periphery of the sidewalls 736. The groove receives the outwardly projecting pivots 110 of the consumable 100 of FIG. 2B and helps to guide the consumable in a path around the holder 706.

[0189] FIG. 6B shows an enlarged view of the proximal end of the holder 706 of FIG. 6A. The holder is holding a consumable 100. In FIG. 6B, five support casings 102, 102*b* of the consumable 100 are visible. For the sake of simplicity, only two of the support casings 102 are holding cartridges 1, 1*b*. Four of the support casings 102 are resting on the first support surface 734 of the first elongate guide 728 and are waiting to be advanced into the aerosolisation zone (not visible but see FIG. 6A). A fifth support casing 102*b* is located in the aerosolisation zone so that its cartridge is connected to the airflow channel (not visible) which passes through the holder 706. In the aerosolisation zone, the cartridge 1*b* is arranged transversely across the airflow channel 712 and the aperture 6 of the cartridge 1*b* is aligned with the airflow channel 712 to entrain aerosol in the airflow. It will be appreciated that the aperture 6 of cartridge 1*b* is not visible in FIG. 6B because it is covered by heating element 8.

[0190] FIGS. 7A and 7B are cutaway side views of part of the aerosol-generating device of FIG. 5A showing the action of the indexing mechanism 718 in more detail. As can be seen in FIG. 7A, a consumable 100 comprising a plurality of interconnected cartridges 1, 1*b* is resting on the first support surface 734 of the holder 706 and the first, most proximal, cartridge 1*b* is awaiting advancement into the aerosolisation zone 716.

[0191] In FIG. 7A, the slider 720 of the indexing mechanism 718 is shown in a first position or resting position. As discussed above with reference to FIG. 5A, the slider 720 is resiliently biased towards the first position by a spring (not shown in FIG. 7A). The slider 720 comprises a pawl 738 arranged to engage an indexing component 106 of the consumable 100. The pawl 738 is tooth-shaped and has a square leading edge and a tapered trailing edge. In FIG. 7A, the square leading edge of the pawl 738 is engaged with the indexing component 106 on the trailing edge of the first cartridge 1*b*. By actuating the button 722 on the upper side of the slider 720 by moving the slider 720 towards a proximal end of the aerosol-generating device 700, the consumable 100 can be advanced towards the aerosolisation zone 716. The outwardly projecting pivots 110 of the consumable 100 are received in a groove 740 formed in an inward facing surface of the sidewalls 736 of the holder 706. As the consumable 100 is advanced by the slider 720, the outwardly projecting pivots 110 of the consumable 100 follow the groove 740, which guides the consumable in a path around the holder 706.

[0192] In FIG. 7B, the slider 720 of the indexing mechanism 718 is shown in a second position or fully advanced position. The slider 720 has been moved in the direction of Arrow B against the resilient bias of the spring (not shown) to its fully advanced position and the first cartridge 1*b* is located within the aerosolisation zone 716. The distance between the first position of the slider 720 as shown in FIG. 7A and the second position of the slider 720 as shown in FIG. 7B corresponds to the length of one cartridge 1 in a direction parallel to the longitudinal axis of the aerosol-generating device 700. In the aerosolisation zone 716, the cartridge 1*b* is arranged transversely across the airflow channel 712 and the aperture 6 of the cartridge 1*b* is aligned with the airflow channel 712 to entrain aerosol in the airflow.

[0193] Once a cartridge 1, 1*b* has been located in the aerosolisation zone 716, the slider 720 returns to its first position or resting position under the resilient action of the spring (not shown) and the square leading edge of the pawl 738 engages the indexing component 106 of the next cartridge 1 to enter the aerosolisation zone 716. The return of the slider 720 to its first position is facilitated by the tapered edge of the pawl 738 which allows the pawl 738 and slider 720 to move over the indexing component 106 of the next cartridge as it returns.

[0194] The slider 720 has a downwardly extending slider arm 742 that is connected to a distal end of the flexible corrugated tube (see FIGS. 5A and 5B), which therefore moves with the slider 720. The slider arm 742 compresses the flexible corrugated tube as the slider 720 is moved to the second position to provide space for the cartridges 1, 1*b* to move into the aerosolisation zone 716. The flexible corrugated tube returns to its uncompressed state when the slider 720 returns to its first position.

[0195] FIGS. 8A to 8D show a sequence of schematic views of the step-wise advancement of two cartridges 1*a*, 1*b*

of a consumable through an aerosolisation zone **716** of an aerosol-generating device, for example, the aerosol-generating device **700** of FIGS. **5**A and **5**B.

[0196] In FIG. **8**A, the first **1***a* and second **1***b* cartridges are unused and the first cartridge **1***a* is advancing towards the aerosolisation zone **716**. This may be achieved, for example, by actuating the slider **720** in FIG. **5**A. The leading edge of the first cartridge **1***a* is following the curved groove **740** of the holder **706** and is rotating about pivot point **110** towards the aerosolisation zone **716**. The second cartridge **1***b* is being held on the first elongate guide **728** and is waiting to be advanced in the aerosolisation zone **716**.

[0197] In FIG. **8**B, the first cartridge **1***a* is engaged in the aerosolisation zone **716** and is arranged transversely across the airflow channel (not shown). In this location, the aerosol-forming substrate in the first cartridge **1***a* can be aerosolised so that a user can take a first inhalation or puff.

[0198] In FIG. **8**C, the second cartridge **1***b* is unused and is advancing towards the aerosolisation zone **716**. This may be achieved, for example, by actuating the slider **720** in FIG. **5**A a second time. Advancement of the second cartridge **1***b* disengages the first cartridge **1***a* from the aerosolisation zone **716**. The first cartridge **1***a* has been used. The first cartridge **1***a* starts to exit the aerosolisation zone **716** and is being directed towards the second elongate guide **730**. The pivot point **110** is following the curved groove **740** of the holder **706**.

[0199] In FIG. **8**D, the second cartridge **1***b* is engaged in the aerosolisation zone **716** and is arranged transversely across the airflow channel (not shown). In this location, the aerosol-forming substrate in the second cartridge **1***b* can be aerosolised so that a user can take a second inhalation or puff. The first cartridge **1***a*, which has been used, is being held on the second elongate guide **730**.

[0200] FIG. **9**A is a view from a proximal end of the aerosol-generating device **700** of FIG. **5**A with the mouthpiece **704** removed. As discussed above with respect to FIG. **5**A, the aerosol-generating device **700** comprises a power supply **714** for supplying electrical power to the heating element of each cartridge **1** and control circuitry **744** for controlling the supply of electrical power from the power supply **714** to the heating elements. The power supply **714** and control circuitry **744** together form a power delivery system which cooperates with the indexing mechanism **718** to supply electrical power to a cartridge **1** when a cartridge is located in the aerosolisation zone **716**.

[0201] As discussed above with respect to FIGS. **7**A and **7**B, the slider **720** comprises a slider arm **742** which extends away from the slider **720** on an opposite side of the slider to the button **722**. The slider arm **742** has an electrical connector **746** mounted on a distally facing side of the slider arm **742**, that is, on a side of the slider arm **742** facing a cartridge when a cartridge is located in the aerosolisation zone **716**. The electrical connector **746** is mounted so as to make contact with an electrical contact region on the cartridge **1**, for example, electrical contact region **12** of the cartridge **1** of FIG. **1**B. Since the electrical connector **746** is mounted on the spring-loaded slider **720**, once a user has positioned a cartridge **1** in the aerosolisation zone **716** by a advancing the slider **720** to the second position shown in FIG. **7**B, the spring (not shown) urges the slider back to the first position shown in FIG. **7**A so that the electrical connector **746** establishes an electrical connection with the heating element of the cartridge **1** positioned in the aerosolisation zone **716**. In this state, the aerosol-generating device **700** is ready to generate aerosol.

[0202] FIG. **9**B shows a perspective view of an example electrical connector **746** for making electrical contact with a heating element of a cartridge. The electrical connector **746** comprises an connector support **748** and a plurality of electrical contacts **750** which are arranged in a line along the connector support **748**. In this example, the electrical contacts **750** are pogo pins.

[0203] In use, a user inserts a consumable **100** into the aerosol-generating device **700**, which is received and held on the first elongate guide **728**. The user then actuates the indexing mechanism **718** to advance a cartridge **1** of the consumable **100** into the aerosolisation zone **716** by sliding the button **722** of the slider **720** from the first position to the second position. This locates a cartridge **1** in the aerosolisation zone **716** such that the aperture **6** of the cartridge **1** is aligned with the airflow channel **712**. The user then places the mouthpiece **704** into their mouth and activates the device to provide electrical power from the power supply **714** to the heating element of the cartridge, for example, by pushing a button or by the device detecting a user inhalation or puff. This heats the aerosol-forming substrate and generates an aerosol which can be drawn into the mouth of a user through the mouthpiece **704**. When the aerosol-forming substrate is aerosolised, air can be drawn through the airflow channel **712**, through the aperture **6** of the cartridge **1** to the aerosol outlet **716** in the mouthpiece **704** by the action of the user's inhalation or puff. Subsequent actuation of the indexing mechanism **718** will eject the used cartridge from the aerosolisation zone **716** and load an unused cartridge into the aerosolisation zone **716** ready for another user inhalation or puff. The used cartridge will be stored on the second elongate guide **730**.

[0204] FIG. **10** shows a schematic perspective view of a consumable **800** according to another example of the present disclosure. The consumable **800** comprises a continuous elongate flexible strip **802**. The elongate flexible strip **802** comprises a polymeric film and is divided along its length into a plurality of sections. Each section of the elongate flexible strip **802** defines a cartridge **804** and comprises an aperture **806** containing a single metered-dose of aerosol-forming substrate **808**. In an alternative arrangement, the elongate flexible strip **802** may comprise a mesh and the aerosol-forming substrate **808** may be deposited onto, on impregnated into, the mesh in the region occupied by the apertures in the example of FIG. **10**. Each cartridge also comprises a heating element (not shown) which may be in the form of a resistive wire or mesh arranged within or over the aperture **806**. Alternatively, the consumable **800** may not comprise heating elements for the cartridges **804** and a heating element may be provided within an aerosol-generating device.

[0205] The consumable **800** comprises an indexing component which can be engaged to advance the elongate strip **802** of cartridges **804** in a direction parallel to a longitudinal axis of the elongate strip **802**. In the example of FIG. **10**, the indexing component comprises a series of holes **810** which are formed on one side of the flexible elongate strip **802** and are arranged to engage teeth (not shown) formed on an indexing spool **812**. For simplicity, only a few holes **810** are shown in FIG. **10**. However, it will be appreciated that the holes **10** would be formed along the entire length of the flexible elongate strip **802**.

[0206] The elongate flexible strip **802** is sufficiently flexible to be wound around and conform to the indexing spool **812**, and any other spool it may be wound about, to provide an effective seal. In the example of FIG. **10**, the consumable **800** is wound about the indexing spool **812** and a tensioning spool **814** and is formed as a continuous loop. The indexing spool **812** can be rotated in the direction of arrow C to arrange a cartridge **804** in an aerosolisation zone **816**, at which location the aerosol-forming substrate can be heated to generate an aerosol. The indexing spool **812** has a channel or conduit to allow air to pass through the indexing spool **812**. When the aerosol-forming substrate **808** is aerosolised air is drawn through the spool by the action of a user inhalation or puff and passes through the aperture **806** of the cartridge **804** located in the aerosolisation zone in the direction of arrow D. The indexing spool **812** can be indexed a number of times, which number corresponds to the number of apertures **806** comprising aerosol-forming substrate **808**

[0207] FIG. **11** is a schematic perspective view of a consumable **900** according to another example of the present disclosure. The consumable **900** comprises an elongate flexible strip **902** which is identical to that of FIG. **10** with the exception that the consumable is not formed as a continuous loop but is instead formed as a single discrete length wound in a double coil arrangement. For simplicity, only one aperture **906** containing an aerosol-forming substrate is shown in FIG. **11**. However, it will be appreciated that a plurality of cartridges each contain an aperture are arranged along the length of the elongate flexible strip **902**.

[0208] In the Example of FIG. **11**, unused cartridges are stored on a first coil **904** and are wound off the first coil **904** so that they can be advanced towards an aerosolisation zone **910** of an aerosol-generating device in the direction of arrow E. Used cartridges are stored on a second coil **908** and are wound on the second coil **908** after having passed through the aerosolisation zone **910** in the direction of arrow F. The first **904** and second **908** coils are wound on spools which, for clarity, have been omitted from FIG. **11**. An indexing spool (not shown) is also provided for advanced the consumable towards the aerosolisation zone **910** in a similar manner to that described with respect to FIG. **10**. The indexing spool may be provide for winding the first coil **904** or the second coil **908** or in the region of the aerosolisation zone **910**.

[0209] FIG. **12**A shows a schematic perspective view of a cassette **1000** for an aerosol-generating device. The cassette **1000** comprises the consumable **900** of FIG. **11** and a cassette housing **1002**. The first and second coils (not shown) of the consumable **900** are held within the cassette housing **1002**. The elongate flexible strip **902** of the consumable **900** is supported on a holder **1004** which protrudes from a proximal end of the cassette housing **1002**. The holder **1004** comprises an upper or first elongate guide **1006** and a lower or second elongate guide **1008**. The first **1006** and second **1008** guides are arranged parallel to one another and the holder **1004** is curved at its proximal end to allow the elongate flexible strip **902** to smoothly track around the end of the holder **1004**.

[0210] The cassette **1000** comprises an air inlet (not shown) and an air outlet **1010** which are in fluid communication with each other by means of an airflow channel (not shown) which defines an airflow pathway through the cassette. The air outlet **1010** is arranged at a proximal end of the holder **1004**. An indexing mechanism (not shown) is provided for advancing the elongate flexible strip **902** towards an aerosolisation zone of an aerosol-generating device. When a cartridge of the elongate flexible strip **902** is arranged in the aerosolisation zone, the aperture **906** of the cartridge is aligned with the air outlet **1010** of the cassette **1000**. In this arrangement, the aerosol-forming substrate of the cartridge can be aerosolised so that a user can take an inhalation or puff. When the aerosol-forming substrate is aerosolised, air flows through the air outlet **1010** and aperture **906** to entrain the generated aerosol in the airflow.

[0211] FIG. **12**B shows a schematic perspective cutaway view of an aerosol-generating device **1100** according to another example of the present disclosure. The aerosol-generating device **1100** is configured for use with the cassette **1000** of FIG. **12**A. Part of the cassette **1000** has been cutaway and the holder **1004** of the cassette **1000** has been removed in FIG. **12**B so that the elongate flexible strip **902** can be seen. It will be appreciated that FIG. **12**B is a schematic and therefore certain features such as a power supply, control circuitry and indexing mechanism have been omitted.

[0212] The aerosol-generating device **1100** comprises a main body part **1102** having a cavity **1104** arranged at its distal end for receiving the cassette **1000**. An aerosolisation zone **1110** is arranged at a proximal end of the cavity **1104** so that a proximal end of the holder **1004** of the cassette **1000** is arranged adjacent to the aerosolisation zone **1110** when the cassette **1000** is received in the cavity **1104**. A mouthpiece **1106** having an aerosol outlet **1108** is arranged at a proximal end of the main body part **1102**. The aerosol outlet **1108** is in fluid communication with the air outlet **1010** of the cassette **1000**. The first **904** and second **908** coils of the consumable **900** which store unused and used cartridges respectively, are held within the cassette housing **1002**.

[0213] In use, a user inserts the cassette **1000** into the cavity **1104** of the aerosol-generating device **1100** and actuates an indexing mechanism (not shown) to advance an unused cartridge of the consumable **900** from the first coil **904** into the aerosolisation zone **1110**. This aligns the aperture **906** of the cartridge with the air outlet **1010**. The user then places the mouthpiece **1106** into their mouth and activates the device to provide electrical power from the power supply to the heating element of the cartridge, for example, by pushing a button or by the device detecting a user inhalation or puff. This heats the aerosol-forming substrate and generates an aerosol which can be drawn into the mouth of a user through the mouthpiece **1106**. When the aerosol-forming substrate is aerosolised, air can be drawn through the cassette, through the air outlet **1010** and through the aperture **90** in the direction of arrow G to the aerosol outlet **1108** in the mouthpiece **1106** by the action of the user's inhalation or puff. Subsequent actuation of the indexing mechanism will eject the used cartridge from the aerosolisation zone **1110** and load an unused cartridge into the aerosolisation zone **1110** ready for another user inhalation or puff. The used cartridge will be stored on the second coil **908**.

[0214] For the purpose of the present description and of the appended claims, except where otherwise indicated, all numbers expressing amounts, quantities, percentages, and so forth, are to be understood as being modified in all instances by the term "about". Also, all ranges include the maximum and minimum points disclosed and include any intermediate

ranges therein, which may or may not be specifically enumerated herein. In this context, therefore, a number A is understood as A±5% of A. Within this context, a number A may be considered to include numerical values that are within general standard error for the measurement of the property that the number A modifies. The number A, in some instances as used in the appended claims, may deviate by the percentages enumerated above provided that the amount by which A deviates does not materially affect the basic and novel characteristic(s) of the claimed invention. Also, all ranges include the maximum and minimum points disclosed and include any intermediate ranges therein, which may or may not be specifically enumerated herein.

1.-**22**. (canceled)

23. An aerosol-generating device for a consumable comprising a plurality of cartridges arranged consecutively to form an elongate strip of cartridges, each cartridge in the elongate strip of cartridges comprising an aerosol-forming substrate, the aerosol-generating device comprising:

an air inlet and an aerosol outlet, the air inlet being in fluid communication with the aerosol outlet to define an airflow pathway through the aerosol-generating device;

an aerosolisation zone configured to aerosolise the aerosol-forming substrate comprised in each cartridge, wherein at least a portion of the aerosolisation zone is arranged within the airflow pathway;

a holder configured to receive and to hold the elongate strip of cartridges; and

an indexing mechanism configured to advance the elongate strip of cartridges a predetermined distance towards the aerosolisation zone in a direction parallel to a longitudinal axis of the aerosol-generating device such that each cartridge of the elongate strip of cartridges successively enters the aerosolisation zone,

wherein the aerosol-generating device is configured to arrange a cartridge transversely across the airflow pathway when a cartridge is located in the aerosolisation zone.

24. The aerosol-generating device according to claim **23**, wherein the holder comprises a first elongate guide configured to hold a first portion of the elongate strip of cartridges, the first portion comprising unused cartridges.

25. The aerosol-generating device according to claim **24**, wherein the first elongate guide is arranged to direct unused cartridges towards the aerosolisation zone.

26. The aerosol-generating device according to claim **24**, wherein the holder comprises a second elongate guide configured to hold a second portion of the elongate strip of cartridges, the second portion comprising used cartridges.

27. The aerosol-generating device according to claim **26**, wherein the second elongate guide is arranged to direct used cartridges away from the aerosolisation zone.

28. The aerosol-generating device according to claim **26**, wherein the aerosolisation zone is disposed between the first and the second elongate guides.

29. The aerosol-generating device according to claim **26**, wherein the first and the second elongate guides are arranged parallel to the longitudinal axis of the aerosol-generating device.

30. The aerosol-generating device according to claim **23**,

wherein the indexing mechanism comprises a slider configured to engage an indexing component on the consumable, and

wherein the slider is configured to be actuated by a user to advance a cartridge into the aerosolisation zone.

31. The aerosol-generating device according to claim **30**, wherein the slider comprises an electrical connector configured to make electrical contact with a heating element.

32. The aerosol-generating device according to claim **30**, wherein the airflow pathway between the aerosol outlet and the aerosolisation zone is flexible.

33. The aerosol-generating device according to claim **32**, wherein the airflow pathway between the aerosol outlet and the aerosolisation zone comprises a corrugated tube.

34. The aerosol-generating device according to claim **32**, wherein a first end of the airflow pathway between the aerosol outlet and the aerosolisation zone is connected to the aerosol outlet and a second end of the airflow pathway between the aerosol outlet and the aerosolisation zone is connected to the slider.

35. The aerosol-generating device according to claim **23**, wherein the holder comprises a spool configured to hold the elongate strip of cartridges.

36. The aerosol-generating device according to claim **23**, wherein the airflow pathway passes through the holder.

37. A consumable for an aerosol-generating device, the consumable comprising:

a plurality of cartridges, each cartridge of the plurality of cartridges comprising an aerosol-forming substrate,

wherein the plurality of cartridges are interconnected consecutively to form an elongate strip of cartridges,

wherein said each cartridge comprises a frame having an aperture that passes through a thickness of the frame, and

wherein the aerosol-forming substrate is arranged within the aperture.

38. The consumable according to claim **37**, wherein adjacent cartridges of the plurality of cartridges are pivotally connected to one another.

39. A consumable for an aerosol-generating device, the consumable comprising:

a continuous elongate flexible strip, which is divided along a length thereof into a plurality of sections,

wherein each section of the elongate flexible strip defines a cartridge comprising an aerosol-forming substrate,

wherein the elongate flexible strip comprises a film and each section of the film defines a cartridge comprising an aperture, and

wherein the aerosol-forming substrate is arranged within the aperture.

40. The consumable according to claim **37**, wherein said each cartridge further comprises at least one heating element configured to heat the aerosol-forming substrate.

41. The consumable according to claim **40**, wherein the at least one heating element comprises a resistive heating wire or a mesh.

42. The consumable according to claim **37**, further comprising an indexing component configured to be engaged to advance the elongate strip of cartridges in a longitudinal direction of the elongate strip of cartridges.

43. The consumable according to claim **37**, wherein said each cartridge further comprises a single metered dose of the aerosol-forming substrate.

44. An aerosol-generating system, comprising:

an aerosol-generating device according to claim **23**; and

a consumable for the aerosol-generating device, the consumable comprising:

a plurality of cartridges, each cartridge of the plurality of cartridges comprising an aerosol-forming substrate,

wherein the plurality of cartridges are interconnected consecutively to form an elongate strip of cartridges,

wherein said each cartridge comprises a frame having an aperture that passes through a thickness of the frame, and

wherein the aerosol-forming substrate is arranged within the aperture.

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