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(54) **CONTAINER FOR AEROSOL-GENERATING ARTICLES WITH EXTINGUISHING MEANS**

(57) A container (10) comprises a box portion (12); a group of aerosol-generating articles within the box portion; and a lid portion (14) movable relative to the box portion between an open position, wherein an access opening of the container is revealed for extracting at least an aerosol-generating article from the box portion (12), and a closed position, wherein the lid portion occludes the access opening. Further, the container comprises at least one extinguishment element (40) comprising a heat-resistant material adapted to withstand direct contact with a heat source at least at about 400 degrees Celsius, the at least one extinguishment element (40) being disposed at a location on an outer surface of a first wall of the box portion (12) or a first wall of the lid portion (14) or both, a surface area of an outer surface of the extinguishment element (40) being at least about 20 square millimetres.

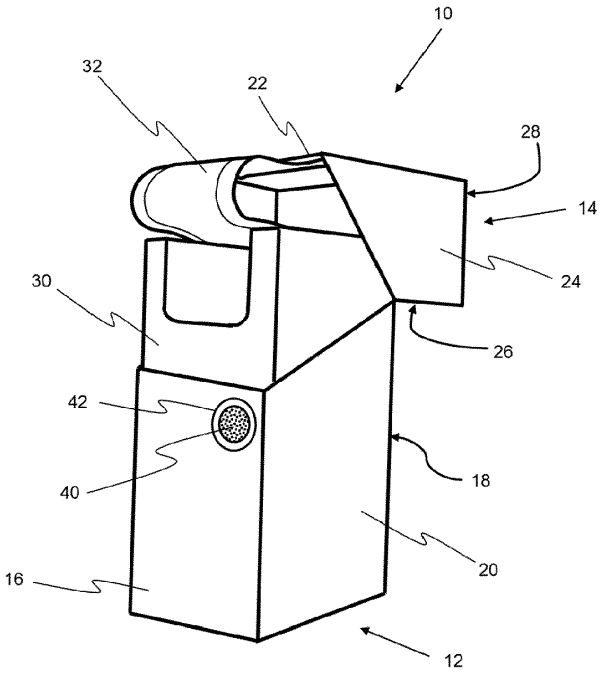

Fig. 1

EP 3 513 666 A1

Description

[0001] The present invention relates to a novel container, which finds particular application as a container for elongate aerosol-generating articles. In particular, the container of the present invention finds application with aerosol-generating articles comprising a combustible heat source of the type disclosed in WO 2017/115196.

[0002] Like conventional smoking articles, aerosol-generating articles are commonly packaged in rigid hinge-lid containers comprising a box and a lid hinged to the box along a hinge line extending across a back wall of the container. The bundle of smoking articles housed in the box is commonly wrapped in an inner liner, or package, of metallised paper, metal foil or other flexible sheet material. Both hinge-lid container and inner package are formed from blanks which are typically transported and supplied to packing machines stacked on top of each other and in a flat state.

[0003] It is desirable to adapt the containers to specific characteristics of the consumer goods that are meant to be held within the container and generally improve the ease of use of the consumer goods. This is especially true in view of the development of new and innovative aerosol-generating articles which may present new challenges.

[0004] WO 2017/115196 discloses an aerosol generating article extending from a proximal end to a distal end and comprising a tubular body positioned at the proximal end and extending toward the distal end. Further, the aerosol generating article comprises a combustible heat source arranged at the distal end and an aerosol generating substrate downstream of the combustible heat source. The combustible heat source is slidable from an extended position to a retracted position. In more detail, the combustible heat source is configured to at least partially retract into the tubular body in the retracted position. Thus, the amount of airflow supplied to the combustible heat source may be curtailed. Extinguishment of such aerosol generating articles can be accomplished with a "stubbing out" motion similar to the one associated with the extinguishment of a conventional cigarette.

[0005] It would be desirable to provide an improved container for consumer goods adapted to improve the ease of use of aerosol-generating articles comprising a combustible heat source. Further, it would be desirable to provide one such container that can be manufactured in straightforward and inexpensive fashion without requiring an extensive modification of existing apparatus and processes. It would also be desirable to provide a blank for forming one such container.

[0006] According to an aspect of the present invention, there is provided a container for consumer articles, the container comprising: a box portion; at least one aerosol-generating article within the box portion; and a lid portion movable relative to the box portion between an open position, wherein an access opening of the container is revealed for extracting at least one aerosol-generating article from the box portion, and a closed position, wherein the lid portion occludes the access opening. The container further comprises at least one extinguishment element comprising a heat-resistant material adapted to withstand direct contact with a heat source at least at about 400 degrees Celsius, the at least one extinguishment element being disposed at a location on a first wall of the box portion or a wall of the lid portion or both such that an outer surface of the extinguishment element is exposed to the exterior of the container, a surface area of the outer surface of the extinguishment element being at least about 20 square millimetres.

[0007] According to another aspect of the present invention, there is provided a laminar blank for forming a container for aerosol-generating articles, the blank comprising a laminar substrate having a substrate thickness and at least one extinguishment element affixed to the laminar substrate, the at least one extinguishment element comprising a heat-resistant material adapted to withstand direct contact with a heat source at least at about 400 degrees Celsius, the at least one extinguishment element being disposed on a panel of the blank for forming a wall of the container such that, in the assembled container, an outer surface of the extinguishment element is exposed to the exterior of the container, wherein a surface area of an outer surface of the extinguishment element is at least about 20 square millimetres.

[0008] It will be appreciated that any features described with reference to one aspect of the present invention are equally applicable to any other aspect of the invention.

[0009] As used herein, the terms "front", "back", "upper", "lower", "top", "bottom" and "side", refer to the relative positions of portions of containers according to the invention and components thereof when the container is in an upright position and an access opening of the container is at the top of the container. When describing containers according to the present invention, these terms are used irrespective of the orientation of the container being described. The back wall is the wall comprising the hinge line about which the lid is pivotable.

[0010] The term "longitudinal" refers to a direction from bottom to top or vice versa. The term "transverse" refers to a direction perpendicular to the longitudinal direction.

[0011] The term "width" is used to describe the dimension of an element, such as the extinguishment element or a panel of a blank or a wall of a container as measured in the transverse direction. The term "height" is used to describe the dimension of one such element as measured in a direction perpendicular to the width of the element. When describing an element of the container, reference is generally made to the element in a flat state.

[0012] The term "thickness" is used to describe the dimension of an element, such as the extinguishment element, as measured in a direction perpendicular to both the height and width of the element. With reference to a laminar blank from which a package or hinge-lid container may be formed, the term thickness identifies the dis-

tance between opposite inner and outer surfaces of the blank.

[0013] The term "inner surface" is used throughout the specification to refer to the surface of a component of the assembled container that is facing towards the interior of the container, for example towards the aerosol-generating articles, when the container is in the closed position. The term "outer surface" is used throughout the specification to refer to the surface of a component of the container that is facing towards the exterior of the container. For example, the front wall of the container has an inner surface that is facing the inside of the container and the aerosol-generating articles, and an outer surface facing away from the aerosol-generating articles. It should be noted that the inside or outside surface is not necessarily equivalent to a certain side of a blank used in assembly of the container. Depending on how the blank is folded around the aerosol-generating articles, areas that are on the same side of the blank can either face towards the inside or the towards the outside of the container.

[0014] The term "affixing area" is used herein to refer to the minimum area of the blank that encloses the ablated or debossed zones.

[0015] The term "ablated zone" is used herein to refer to an area from which material has been ablated (e.g. removed by means of a laser beam or a blade) from a surface of the laminar blank or container. The term "debossed zone" is used here in to refer to an area wherein the material of the laminar blank or container has been compressed. Accordingly, the residual thickness of an ablated or debossed zone is less than the thickness of the laminar blank. For example, an ablated zone may be formed with a linear ablation tool, such as a laser or a blade.

[0016] The term "hinge line" refers to a line about which the lid may be pivoted in order to open the hinge lid container. A hinge line may be, for example, a fold line or a score line in the panel forming the back wall of the container.

[0017] As described briefly above, a container in accordance with the invention comprises a box portion within which there is received a group of aerosol-generating articles, and lid portion movable relative to the box portion between an open position and a closed position. In contrast to existing containers for aerosol-generating articles, a container in accordance with the invention comprises at least one extinguishment element comprising a heat-resistant material adapted to withstand direct contact with a heat source at least at about 400 degrees Celsius, the extinguishment element being disposed at a location on a surface of a first wall of the box portion or a first wall of the lid portion or both such that an outer surface of the extinguishment element is exposed to the exterior of the container. A surface area of the outer surface of the extinguishment element is at least about 20 square millimetres.

[0018] Thus, containers in accordance with the present invention advantageously provide the user with a surface against which an aerosol-generating article, especially one of the type comprising a combustible heat source, can be extinguished. In particular, this is very effective with aerosol-generating articles comprising a combustible heat source adapted to be retracted into a hollow tubular body of the aerosol-generating article. Without wishing to be bound by theory, this is understood to be because the outer surface of the extinguishment element can be used to effectively curtail the amount of airflow supplied to the combustible heat source through the end surface thereof, whilst at the same time the tubular body substantially occludes at least a portion of the peripheral cylindrical surface of the combustible heat source.

[0019] Containers in accordance with the present invention thus advantageously allow the consumer to extinguish such aerosol-generating articles with a gesture that is rather similar to the gesture by which a conventional filter cigarette can be stubbed out without the need for an ashtray or the like.

[0020] In addition, containers and blanks in accordance with the present invention are easy to manufacture and do not require any extensive modification of the existing apparatus.

[0021] In preferred embodiments, the surface area of the outer surface of the at least one extinguishment element is at least about 50 square millimetres. This makes it particularly convenient for the consumer to extinguish the aerosol-generating article in a safe and reliable manner, in that it presents to the consumer an extinguishment area that has a significantly greater surface area than the cross-sectional area of a standard-sized aerosol-generating article. Thus, the likelihood that a hot portion of the aerosol-generating article, such as a hot combustible heat source, inadvertently comes into contact with a portion of the surface of the container other than the extinguishment element is greatly reduced.

[0022] Preferably, a thickness of the at least one extinguishment element is at least about 0.5 micrometres. More preferably, the thickness of the at least one extinguishment element is at least about 1 micrometre. In addition, or as an alternative, a thickness of the at least one extinguishment element is preferably less than about 100 micrometres. More preferably, the thickness of the at least one extinguishment element is less than about 25 micrometres. In particularly preferred embodiments, a thickness of the at least one extinguishment element is from about 1 micrometre and 25 micrometres.

[0023] In general, a greater thickness of the extinguishment element is understood to be associated with an improved resistance to high temperatures. On the other hand, a smaller thickness typically facilitates the application of the extinguishment element onto the blank, especially in those embodiments, which will be described in greater detail below, where the extinguishment element is applied by a hot foil stamping process. Without wishing to be bound by theory, the inventors have found that by providing an extinguishment element having a

thickness falling in the ranges described above, manufacture of the container can be advantageously streamlined whilst at the same time ensuring that the at least one extinguishment element has sufficient resistance to high temperatures.

[0024] The at least one extinguishment element comprises a material adapted to withstand direct contact with a heat source at least at about 400 degrees Celsius. Preferably, the at least one extinguishment element comprises a material adapted to withstand direct contact with a heat source at least at about 600 degrees Celsius. More preferably, at least one extinguishment element preferably comprises a material adapted to withstand direct contact with a heat source at least at about 800 degrees Celsius.

[0025] In aerosol-generating articles comprising a combustible heat source, during use the combustible heat source may reach high temperatures. For example, a heat source of an aerosol-generating article may reach an average temperature of around 500 degrees Celsius and in certain cases the temperature of the heat source may reach up to about 800 degrees Celsius.

[0026] Thus, the at least one extinguishment element may comprise insulating material. The insulating material may reduce the risk of the content of the container being exposed to high surface temperatures when the heat source of the aerosol-generating article is extinguished against the extinguishment element. Suitable thermally insulating materials have a low thermal conductivity or substantially no thermal conductivity. Suitable thermally insulating materials may include, for example, cardboards, foams, polymers or ceramic materials, or other materials that have a low thermal conductivity. In addition, or as an alternative, the extinguishment element may comprise a suitable barrier material such as a substantially non-combustible material or a substantially flame retardant material. Preferably, the barrier material may be thermally stable in air at the highest temperature achieved by the heat source of the smoking article. Suitable barrier materials may, for example, include metallic materials, or ceramic materials.

[0027] In preferred embodiments, the at least one extinguishment element comprises a material selected from the group consisting of silicone, aluminium and mixtures thereof.

[0028] The extinguishment element material may be applied to the blank from which the container is formed by one of several techniques known to the skilled person. By way of example, a heat resistant layer may be laminated on cardboard or applied as a sticker or by hot foil stamping (HFS).

[0029] HFS is a technology used for transferring a metallic foil onto a solid surface by the application of heat. HFS is preferred because it can very easily be integrated in existing manufacturing processes. However, for other materials adapted to withstand exposure to high temperatures, such as heat-resistant foams, tapes, rubber press pads and so on, other application techniques may be advantageously used and integrated into existing manufacturing process, such as the application of glue or of pressure sensitive adhesives that can be laminated onto the blank.

[0030] Preferably, an outer surface of the wall of the box portion or of the wall of the lid portion or of both comprises an affixing area for at least partly receiving the at least one extinguishment element, the affixing area comprising a debossed or ablated area having a residual thickness less than the a thickness of the remainder of the wall; and wherein the at least one extinguishment element is affixed to the wall by means of adhesive provided on the debossed or ablated zone of the affixing area. In such containers, it is advantageously possible, by locally reducing the thickness of the blank from which the wall or walls are formed, to at least partly offset or compensate the increase in thickness which would, otherwise, be caused by the provision of the extinguishment element on the outer surface of the wall or walls. Accordingly, instead of having a local overall thickness essentially equal to the sum of the thicknesses of the extinguishment element and the thickness of the blank, the local overall thickness will be given by the sum of the residual thickness of the debossed or ablated area and the thickness of the extinguishment element.

[0031] In some embodiments, a difference between the thickness of the remainder of the wall or walls and the residual thickness is less than the thickness of the at least one extinguishment element, such that the at least one extinguishment element projects beyond a plane defined by the outer surface of the wall or walls by an incremental thickness less than the extinguishment element thickness. Thus, the ablation or debossing process only partly offsets the locally increased thickness caused by the presence of the extinguishment element. This may be advantageous when the laminar blank from which the container is formed has a low base weight, in that it ensures a sufficient residual thickness for the blanks and container to have the necessary mechanical properties to protect the consumer goods.

[0032] In an alternative embodiment, the first wall of the box portion or the first wall of the lid portion or both may comprise a cut out having a surface area less than the surface area of the cross-section of the extinguishment element and the extinguishment element is affixed to the container (for example, by means of adhesive applied on the inner surface of the first wall of the box portion or the first wall of the lid portion or both) such that the extinguishment element extends beyond the periphery of the cut out portion, the outer surface of the extinguishment element being exposed to the exterior of the container and accessible for the consumer through the cut out.

[0033] In preferred embodiments, the extinguishment element is provided on a lid top wall of the container or on a box bottom wall of the container. As an alternative, the extinguishment element may be provided on a lid side wall or on the lid front wall or on the lid back wall.

As a further alternative, the extinguishment element may be provided on a side wall of the box portion. In a parallelepiped shaped container for consumer articles, such as a container formed from folding a laminar cardboard blank, these walls are characterised by a greater structural resistance and, for example, are less easily deformable than the front and back walls of the box portion. For this reason, placement on one such wall may advantageously ensure that, during use, the consumer can easily extinguish an aerosol-generating article. This is because the compressive load applied on the extinguishment element is less likely to produce a deformation of the wall on which the extinguishment element is provided.

[0034] Preferably, the container further comprising one or more walls adjacent the first wall, each of the one or more adjacent walls being connected to the first wall by an edge portion or by a hinge portion, wherein the at least one extinguishment element is disposed at less than about 10 millimetres from at least one said edge portion or hinge portion. More preferably, the at least one extinguishment element is disposed at less than about 5 millimetres from at least one said edge or hinge portion. The distance between the extinguishment element and the edge portion or hinge portion is the minimum distance between a point on the perimeter of the extinguishment element and the edge portion or hinge portion (that is, the fold line or crease line along which the blank from which the container is formed has been folded or is adapted to fold).

[0035] Edges of the container, which may be formed by folding the blank along a fold line or crease line, are characterised by a particularly good structural resistance. By placing the extinguishment element near to one such edge, it is easier to ensure that a compressive load applied to the extinguishment element will not cause a permanent deformation of the wall on which the extinguishment element is applied.

[0036] In a preferred embodiment, the extinguishment element may be applied on a front wall of the box portion at less than about 10 millimetres from an edge between the box front wall and a box side wall. More preferably, the extinguishment element is applied on a front wall of the box portion at less than about 5 millimetres from an edge between the box front wall and a box side wall. Without wishing to be bound by theory, it is understood that where the container is formed from a more flexible blank material, a smaller distance between the extinguishment element and the edge portion or hinge portion is preferred. On the other hand, where the container is formed from a thicker blank or a blank having a greater base weight, the extinguishment element may conveniently be disposed at a greater distance from an edge portion or hinge portion.

[0037] A container in accordance with the present invention may be formed by folding a blank for forming a container for consumer goods, the blank comprising a laminar substrate having a substrate thickness and at least one extinguishment element affixed to the laminar substrate, a surface area of an outer surface of the extinguishment element being at least about 20 square millimetres.

[0038] The blank may be of any suitable material or combination of materials, including, but not limited to, cardboard, paperboard, plastic, metal, or combinations thereof. Preferably, the blank is a laminar cardboard blank having a weight of between about 100 grams per square metre and about 350 grams per square metre.

[0039] The container may optionally comprise an outer wrapper, which is preferably a transparent polymeric film of, for example, high or low density polyethylene, polypropylene, oriented polypropylene, polyvinylidene chloride, cellulose film, or combinations thereof and the outer wrapper is applied in a conventional manner. The outer wrapper may include a tear tape. In addition, the outer wrapper may be printed with images, consumer information or other data.

[0040] Preferably, the consumer goods within the box are provided as a bundle wrapped in a package of metal foil or metallised paper. The package material may be formed as a laminate of a metallised polyethylene film, and a liner material. The package material may also be a supercalendered glassine paper. In addition, the package material may be provided with a print-receptive top coating.

[0041] The package, as well as the outer container, is preferably a rectangular parallelepiped comprising two wider walls spaced apart by two narrower walls.

[0042] Containers according to the invention find particular application as containers for elongate aerosol-generating articles such as, for example, cigarettes, cigars or cigarillos. It will be appreciated that through appropriate choices of the dimensions thereof, containers according to the invention may be designed for different numbers of conventional size, king size, super-king size, slim or super-slim cigarettes. Alternatively, other consumer goods may be housed inside the container.

[0043] In particular, containers in accordance with the invention may advantageously be used to accommodate aerosol-generating articles wherein an aerosol-generating substrate is heated rather than burned to produce an inhalable aerosol. In particularly preferred embodiments, the aerosol-generating articles are of the type comprising a combustible heat source. Even more preferably, the combustible heat source is retractable and the aerosol-generating article comprises a tubular body adapted to at least partly receive the combustible heat source in the retracted condition.

[0044] In a particularly preferred embodiment, the at least one aerosol-generating article has a proximal end and a distal end and comprises: a tubular body positioned at the proximal end of the aerosol generating article and extending toward the distal end; a combustible heat source positioned at the distal end of the aerosol generating article; and an aerosol-forming substrate downstream of the combustible heat source; wherein the combustible heat source is movable relative to the tubular

body in a direction from the distal end to the proximal end from an extended configuration, in which the aerosol-generating article has a first article length, to a retracted configuration, in which the combustible heat source is at least partly received into the tubular body such that the aerosol-generating article has a second article length that is less than the first article length. Further, the tubular body comprises a heat-resistant material adapted to withstand direct contact with a heat source at least at about 400 degrees Celsius.

[0045] Through an appropriate choice of the dimensions, containers according to the invention may be designed to hold different total numbers of aerosol-generating article articles, or different arrangements of aerosol-generating articles.

[0046] The invention will now be further described, by way of example only, with reference to the accompanying drawings in which:

Figure 1 is a schematic perspective view of a container in accordance with the present invention;
Figure 2 is a schematic top view of a blank for forming a container in accordance with the present invention;
Figure 3 is a schematic partial sectional view of a container in accordance with the present invention during use with an aerosol-generating article comprising a retractable combustible heat source in an extended configuration; and
Figure 4 is a further schematic partial sectional view of the container of Figure 3 during use with the aerosol-generating article in a retracted configuration.

[0047] A hinge lid container 10 according to the present invention is shown in Figure 1. The container 10 is shaped as a rectangular parallelepiped and comprises a lower box portion 12 an upper lid portion 14 that is hinged to the lower box portion 12 along a hinge line extending along the back wall of the container. The box portion 12 comprises a front wall 16, a back wall 18, two side walls 20 extending between the front wall 16 and the back wall 18, and a bottom wall. The lid portion 14 has a front wall 22, a left side wall, a right side wall 24, a back wall 26 and a top wall 28. In the embodiment of Figure 1, the container comprises a package 30 received within the box portion 12 and adapted to hold a group of consumer articles, and a reclosable adhesive label 32. The reclosable adhesive label 32 is movable between a closed position (not shown), in which the adhesive label extends over and occludes an access opening of the package 30, and an open position - as shown in Figure 1 - wherein the reclosable adhesive label is lifted off the surface of the package 30 to reveal the access opening, such that the content of the package 30 is accessible for the consumer. An end of the reclosable adhesive label 32 is affixed to the lid portion 14, such that movement between the closed and open positions of the lid portion 14 causes the reclosable adhesive label 32 to move between the corresponding closed and open positions.

[0048] Further, the container 10 comprises an extinguishment element 40 comprising a heat-resistant material disposed at a location on an outer surface of the front wall 16 of the box portion 12. A distance between the extinguishment element 40 and the edge connecting the box front wall 16 and the adjacent box side wall 22 is about 5 millimetres.

[0049] A surface area of an outer surface of the extinguishment element 40 is about 50 square millimetres. A thickness of the extinguishment element 40 is about 20 micrometres. The extinguishment element 40 comprises aluminium and is applied to the outer surface of the container 10 by HFS.

[0050] The outer surface of the front wall 16 of the box portion comprises an affixing area 42 for at least partly receiving the extinguishment element 40. In more detail, the affixing area 42 comprises a debossed or ablated area having a residual thickness less than the thickness of the remainder of the front wall 16. The at least one extinguishment element is affixed onto the debossed or ablated zone of the affixing area 42.

[0051] Figure 2 is a view of a cardboard laminar blank 100 for forming a container according to the invention. In Figure 2, solid lines indicate cut lines and dashed lines indicate fold lines. The blank 100 comprises a box blank portion 102 for forming a box portion of the container, and a lid blank portion 104 for forming a lid portion of the container. The box blank portion depends from the lid blank portion along hinge line 106.

[0052] The box blank portion 102 comprises a front wall panel 108, a back wall panel 110 and a bottom wall panel 112. Two side wall panels 114 extend from front wall panel 108, two side wall panels 116 extend from back wall panel 110, and two box dust flaps 118 extend from side wall panels 116. When the box portion 102 is assembled from the box blank portion, the front wall panel 108 forms the front wall of the box portion, the back wall panel 110 forms the back wall, side wall panels 114, 116 overlap to form left and right side walls, and box dust flaps 118 overlap bottom wall panel 112 to form the bottom wall.

[0053] The blank 100 further comprises an extinguishment element 40 having a surface area of about 50 square millimetres and a thickness of about 20 micrometres disposed at a location on the box portion front wall panel 108. A distance between the extinguishment element 40 and fold line separating the box portion front panel 108 and the adjacent box portion side panel 114 is about 5 millimetres.

[0054] A container 10 in accordance with the present invention may be used as illustrated in Figures 3 and 4. In Figures 3 and 4 an aerosol-generating article 200 is shown extending between a proximal end 202 (which may also be referred to as the mouth end) and a distal end 204. The aerosol-generating article 200 comprises a tubular body 210 positioned at the proximal end 202 and extending toward the distal end 204. The tubular body 210 internally defines a cavity 212. Further, the aer-

osol-generating article 200 comprises a combustible heat source 230 positioned at the distal end 204, an aerosol generating substrate 220 arranged downstream of the combustible heat source 230, and a filter element 240 in sequential, coaxial alignment with the combustible heat source 230 and aerosol-forming substrate 220.

[0055] The combustible heat source 230 is movable relative to the tubular body 210 in a direction from the distal end 204 to the proximal end 202 from an extended configuration (shown in Figure 3), in which the aerosol-generating article 200 has a first article length, to a retracted configuration (shown in Figure 4), in which the combustible heat source 230 is substantially received in its entirety into the tubular body 230. During use, the aerosol-generating article 200 is maintained in the extended configuration, in which a distal end surface 232 and a side surface 234 of the combustible heat source 230 are exposed to the environment, such that oxygen can be delivered to the heat source and sustain the combustion and, accordingly, the generation of the aerosol.

[0056] Movement of the combustible heat source 230 into the retracted configuration is achieved by pushing the distal end 204 of the aerosol-generating article 200 against the extinguishment element 40 on the front wall 16 of the container 10 (of which only a partial sectional view is shown in Figures 3 and 4). The arrow in Figure 3 indicates the direction along which the aerosol-generating article is pressed against the extinguishment element 40, whereas the arrow in Figure 4 indicates the resulting direction of movement of the combustible heat source 230.

[0057] The tubular body 210 comprises a heat-resistant material adapted to withstand direct contact with a heat source at least at about 400 degrees Celsius. By way of example, a heat reactive material may be disposed on or form at least a portion of the inner surface of the tubular body 210 along a distal end portion of the tubular body 210.

[0058] Thus, when the combustible heat source 230 is moved to the retracted configuration by pushing the aerosol-generating article 200 against the extinguishment element 40, the combustible heat source 230 is substantially surrounded on all sides originally exposed to the outer environment by heat-resistant material. This may advantageously facilitate extinguishment of the retracted combustible heat source by substantially curtailing the delivery of oxygen to the combustible heat source 230.

Claims

1. A container comprising:

a box portion;
at least one aerosol-generating article within the box portion;
a lid portion movable relative to the box portion between an open position, wherein an access opening of the container is revealed for extracting at least one aerosol-generating article from the box portion, and a closed position, wherein the lid portion occludes the access opening;
at least one extinguishment element comprising a heat-resistant material adapted to withstand direct contact with a heat source at least at about 400 degrees Celsius, the at least one extinguishment element being disposed at a location on a first wall of the box portion or a first wall of the lid portion or both such that an outer surface of the extinguishment element is exposed to the exterior of the container, a surface area of the outer surface of the extinguishment element being at least about 20 square millimetres.

2. A container according to claim 1, wherein the surface area of the outer surface of the at least one extinguishment element is at least about 50 square millimetres.

3. A container according to claim 1 or 2, wherein a thickness of the at least one extinguishment element is at least about 0.5 micrometres.

4. A container according to any one of claims 1 to 3, wherein a thickness of the at least one extinguishment element is at least about 1 micrometre.

5. A container according to any one of claims 1 to 4, wherein a thickness of the at least one extinguishment element is less than about 100 micrometres.

6. A container according to any one of claims 1 to 5, wherein a thickness of the at least one extinguishment element is less than about 25 micrometres.

7. A container according to any one of the preceding claims, wherein the at least one extinguishment element comprises a material selected from the group consisting of silicone, aluminium and mixtures thereof.

8. A container according to any one of the preceding claims, wherein an outer surface of the wall of the box portion or of the wall of the lid portion or of both comprises an affixing area for at least partly receiving the at least one extinguishment element, the affixing area comprising a debossed or ablated area having a residual thickness less than a thickness of the remainder of the wall; and wherein the at least one extinguishment element is affixed to the wall by means of adhesive provided on the debossed or ablated zone of the affixing area.

9. A container according to claim 8, wherein a difference between the thickness of the remainder of the wall and the residual thickness is less than the at

least one extinguishment element thickness, such that the at least one extinguishment element projects beyond a plane defined by the outer surface of the wall by an incremental thickness less than the extinguishment element thickness.

10. A container according to any one of claims 1 to 7, wherein the first wall of the box portion or the first wall of the lid portion or both comprises a cut out having a surface area less than the surface area of the cross-section of the extinguishment element and wherein the extinguishment element is affixed to an inner surface of the first wall of the box portion or the first wall of the lid portion or both such that the extinguishment element extends beyond the periphery of the cut out portion, the outer surface of the extinguishment element being exposed to the exterior of the container through the cut out.

11. A container according to any one of the preceding claims, the container further comprising one or more walls adjacent the first wall, each of the one or more adjacent walls being connected to the first wall by an edge portion or by a hinge portion, wherein the at least one extinguishment element is disposed at less than about 5 millimetres from at least one said edge portion or hinge portion.

12. A container according to any one of the preceding claims, wherein the at least one aerosol-generating article has a proximal end and a distal end and comprises: a tubular body positioned at the proximal end of the aerosol generating article and extending toward the distal end; a combustible heat source positioned at the distal end of the aerosol generating article; and an aerosol-forming substrate downstream of the combustible heat source; wherein the combustible heat source is movable relative to the tubular body in a direction from the distal end to the proximal end from an extended configuration, in which the aerosol-generating article has a first article length, to a retracted configuration, in which the combustible heat source is at least partly received into the tubular body such that the aerosol-generating article has a second article length that is less than the first article length; and wherein the tubular body comprises a heat-resistant material adapted to withstand direct contact with a heat source at least at about 400 degrees Celsius.

13. A laminar blank for forming a container for aerosol-generating articles, the blank comprising a laminar substrate having a substrate thickness and at least one extinguishment element affixed to the laminar substrate, the at least one extinguishment element comprising a heat-resistant material adapted to withstand direct contact with a heat source at least at about 400 degrees Celsius, the at least one extinguishment element being disposed on a panel of the blank for forming a wall of the container such that, in the assembled container, an outer surface of the extinguishment element is exposed to the exterior of the container, wherein a surface area of an outer surface of the extinguishment element is at least about 20 square millimetres.

14. A laminar blank according to claim 13, wherein a thickness of the at least one extinguishment element is at least about 0.5 micrometres.

15. A laminar blank according to claim 12 or 13, wherein the at least one extinguishment element comprises a material selected from the group consisting of silicone, aluminium and mixtures thereof.

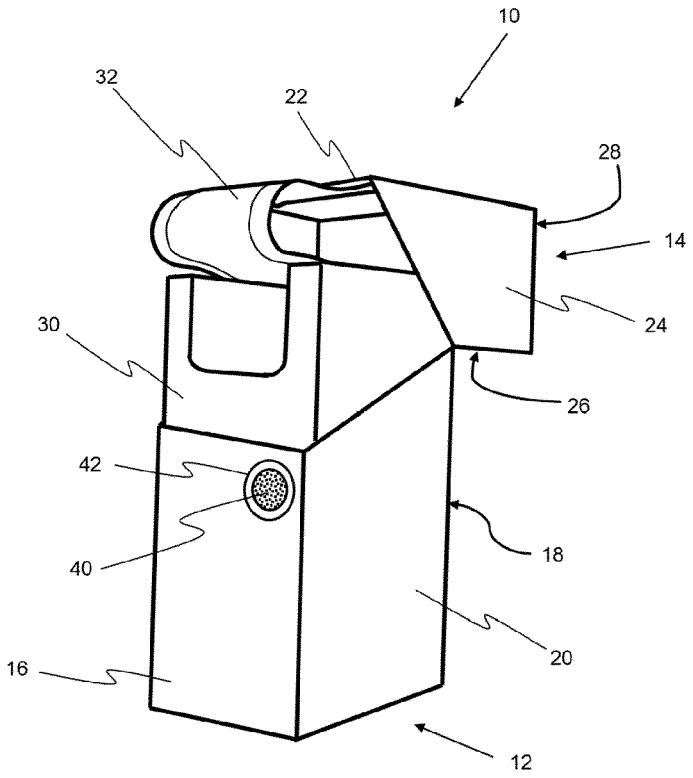
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Fig. 1

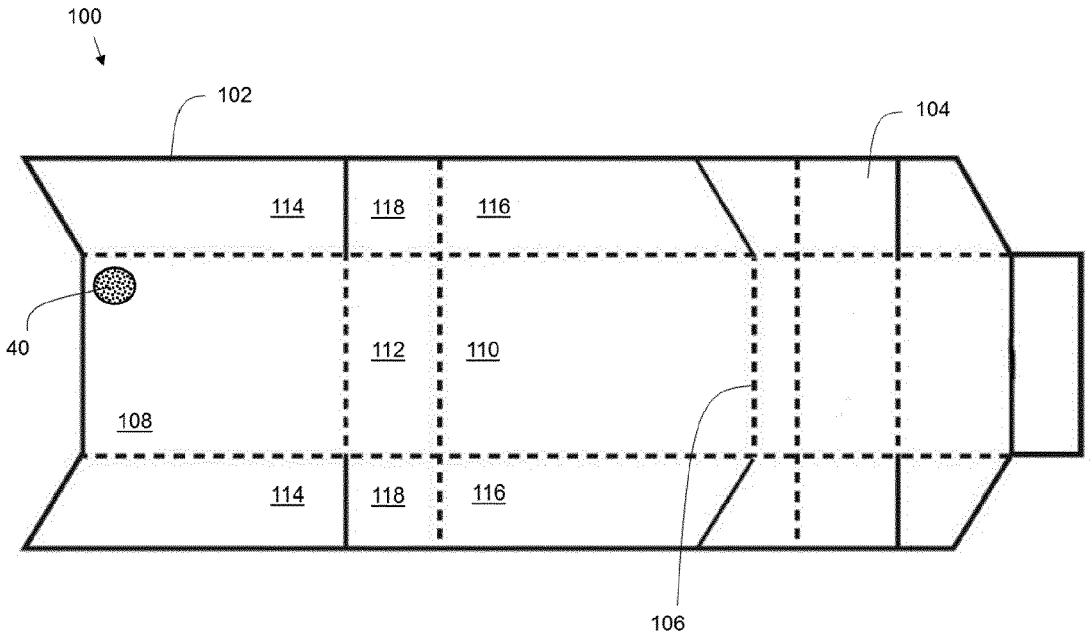
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Fig. 2

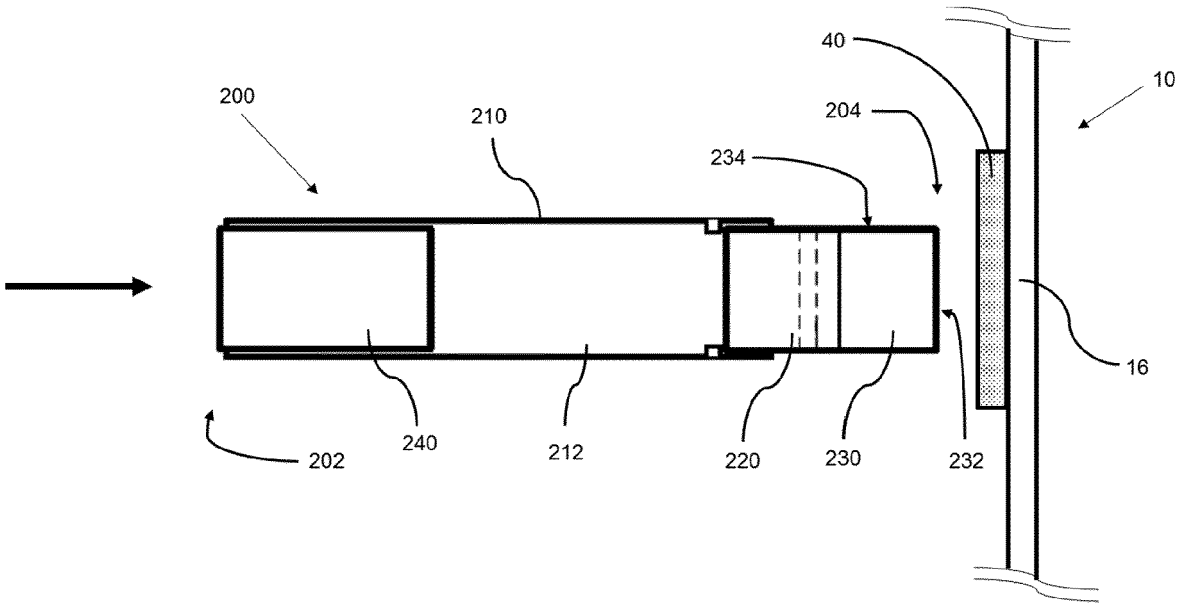
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Fig. 3

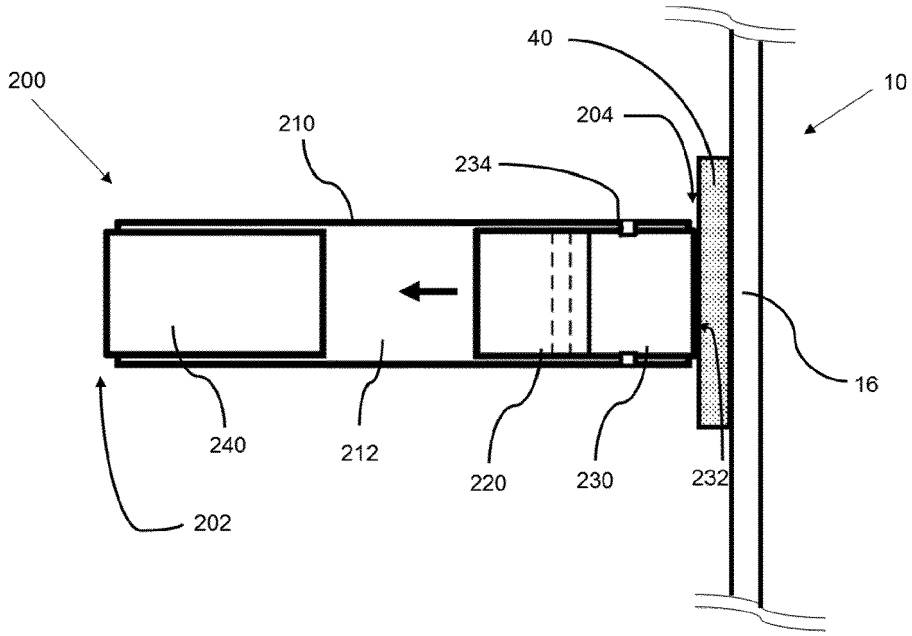
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Fig. 4

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EUROPEAN SEARCH REPORT

Application Number
EP 18 15 3043

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Place of search	Date of completion of the search	Examiner
Munich	3 July 2018	Kock, Søren

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