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(54) **FILTER FOR SMOKING ARTICLE**

FILTER FÜR RAUCHARTIKEL

FILTRE POUR ARTICLE À FUMER

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Description

[0001] This invention relates to a filter for smoking article.

[0002] As used herein, the term "smoking article" includes smokeable products such as cigarettes, cigars and cigarillos whether based on tobacco, tobacco derivatives, expanded tobacco, reconstituted tobacco or tobacco substitutes and also heat-not-burn products. The smoking article may be provided with a filter for the gaseous flow drawn by the smoker

[0003] It is known to provide a flavourant in tobacco used in a smoking article such as a cigarette to provide a distinctive flavour for the smoker. For example, tobacco in a cigarette may be flavoured with menthol or other regulatory approved flavourants to flavour the gaseous flow inhaled by the smoker. Also, it is known from GB 2,229,078 and 2,249,936 to include flavourant in adhesive used to assemble the filter of a smoking article.

[0004] The present invention provides an alternative approach for flavouring a smoking article that has a filter.

[0005] According to the present invention there is provided a filter as claimed in claim 1 for a smoking article, comprising a plug of filter material and wrapping held by an adhesive to the periphery of the filter material, wherein the adhesive contains a smoking article flavourant, wherein the flavourant is naturally coloured such as to provide visually discernable portions in the filter thereby differentiating the smoking article with a unique appearance.

[0006] The wrapping comprises a sheet material to which the adhesive has been applied in stripes, the sheet material being wrapped around the filter material.

[0007] The plug of filter material may have a generally cylindrical periphery along which the adhesive material is arranged in stripes.

[0008] The plug of filter material may have an end surface with a generally circular perimeter and the stripes may be configured to provide visually discernable portions spaced around the perimeter of the end surface. The visually discernable portions may present a castellated pattern around the perimeter of the circular end surface.

[0009] The adhesive material may comprise PVA and the naturally coloured flavourant may comprise a brand-distinctive flavourant.

[0010] The flavourant may be a tobacco flavourant and may comprise but is not restricted to at least one extract (e.g., liquorice, cocoa, hydrangea, Japanese white bark magnolia leaf, chamomile, fenugreek, clove, menthol, Japanese mint, aniseed, cinnamon, herb, wintergreen, cherry, berry, peach, apple, Dramboui, bourbon, scotch, whiskey, spearmint, peppermint, lavender, cardamom, celery, cascarilla, nutmeg, sandalwood, bergamot, geranium, honey essence, rose oil, vanilla, lemon oil, orange oil, cassia, caraway, cognac, jasmine, ylang-ylang, sage, fennel, piment, ginger, anise, coriander, coffee, or a mint oil from any species of the genus *Mentha*), flavour mask-

ing agents, bitterness receptor site blockers, receptor site enhancers, sweeteners (e.g., sucralose, acesulfame potassium, aspartame, saccharine, cyclamates, lactose, sucrose, glucose, fructose, sorbitol, or mannitol), and other additives such as aroma pyrazines, chlorophyll, minerals, botanicals, or breath freshening agents. They may be imitation, synthetic or natural ingredients or blends thereof. They may be in any suitable form, for example, oil, liquid, or powder.

[0011] A colouring additive such as charcoal may be added to the adhesive. Thus, for example when the filter material comprises fibrous cellulose acetate, the charcoal provides visually distinctive adhesive containing portions in the filter.

[0012] The wrapping may comprise a plug wrap for the filter material.

[0013] The invention also includes a smoking article such as a cigarette including the filter. The cigarette may include a rod of smokeable material such as tobacco attached to the filter by tipping paper and the adhesive that contains the flavourant may be applied to the tipping paper.

[0014] In order that the invention may be more fully understood, an embodiment thereof will now be described by way of illustrative example with reference to the accompanying drawings, in which:

Figure 1 is a schematic side view of the cigarette; Figure 2 is an end view of the cigarette taken in the direction of arrow A of Figure 1;

Figure 3 is a partially exploded perspective view of the cigarette shown in Figures 1 and 2;

Figure 4 illustrates a process for preparing a plug wrap for use in a filter according to the invention; and Figure 5 illustrates in perspective the wrapping of plug wrap around filter material to create a filter according to the invention.

[0015] Referring to Figures 1, 2 and 3, a smoking article in the form of a cigarette includes a filter in accordance with the invention. The cigarette comprises a generally cylindrical paper-wrapped tobacco rod 1 which is co-axially attached to a cylindrical filter 2 by tipping paper 3 that is glued around one end of the rod 1 and the filter 2. Referring to Figures 2 and 3, the filter 2 comprises a generally cylindrical tow of filter material 4 such as fibrous cellulose acetate. The filter material 4 is provided with a wrapping 5 of sheet material in the form of a plugwrap, to which stripes 6 of adhesive material have been applied, so that the plug wrap 5 is held in place by the adhesive 6 upon wrapping of the plugwrap around the filter material 4.

[0016] The manufacture of a length of filter 2 is illustrated in Figures 4 and 5. Referring to Figure 4, a planar sheet of plug wrap 5 passes through a gluing station 7 in the direction of arrow B, at which nozzles 8 apply the stripes of adhesive 6 in parallel, longitudinally along the plug wrap.

[0017] Referring to Figure 5, the plug wrap 5 and a generally cylindrical tow of the filter material 4 are fed to a wrapping station 9 in the direction of arrow C, where the plugwrap is wrapped around the filter material 4 and glued by a gluing nozzle 10 so that the plug wrap completely encompasses the filter material 4 and forms a generally cylindrical length 11 of filter in accordance with the invention. The resulting filter is then cut into length suitable for individual cigarettes as illustrated schematically in dotted outline 2 of Figure 5.

[0018] As illustrated in Figure 4, the adhesive for the stripes 6 is applied through the nozzles 8 from tank 13. The adhesive may comprise a conventional PVA material which additionally includes a flavourant for flavouring the tobacco smoke of the cigarette. The flavourant may be naturally coloured with the result that visually discernable portions of the adhesive 6 are visible in end face 13 of the filter shown in Figures 2 and 3. The adhesive portion 6 provides a regular pattern of castellations around the perimeter of the circular end surface of the filter 2, thus providing the cigarette with a distinctive appearance. It will be appreciated that the number of stripes of adhesive 9 applied to plug wrap 5 can be varied so as to produce different numbers of castellations around the perimeter of the end surface.

[0019] The added flavourant can comprise a substance or composition that has been approved for use within tobacco of a cigarette, such as menthol, liquorice, caramel or one of the flavourants listed above.

[0020] In use, smoke from the burning tobacco rod 1 is drawn through the filter so as to pass the adhesive stripes 6 and thereby give flavour to the tobacco smoke for the user.

[0021] It will be appreciated that the adhesive stripes 6 may include a mixture of different flavourings, for example a brand-distinctive flavour mixture in order to provide brand recognition for the smoker.

[0022] Additionally, the adhesive stripes 6 may include a material approved for use in cigarettes to act as a colouring agent and so improve the visibility of the pattern of the stripes in the end surface 13. For example, in a generally white cellulose acetate filter rod an adhesive stripe coloured with liquorice (black) could be used. Alternatively, a filter rod formed substantially of carbon paper would present a dark appearance, particularly when used in conjunction with carbon tipping paper. In such a case, cream coloured vanilla adhesive stripes could be applied to produce the desired effect. In cases where the adhesive stripes are lighter in colour than the surrounding material, it may be preferable to use an adhesive agent which does not migrate into the surrounding material, such as a hot melt adhesive.

[0023] In an alternative configuration, the adhesive stripes may be applied to the tipping paper 3 on its inside, where it attaches to the plug wrap 5, to provide the flavourant and also the distinctive pattern. Where the flavourant for the article is exclusively contained in adhesive stripes located on the tipping paper, it will be appreciated

that flavourants which are capable of migrating out of the adhesive and into the surrounding material, such as menthol, may be preferred. Alternatively, modifications to, e.g., ventilation may be made to ensure flavour delivery during use. Also, the filter material 4 itself may be coloured. Such colouring may be achieved with a naturally coloured flavourant different from that used in the adhesive region 6, or with a non-flavoured colourant.

[0024] It will be appreciated that the pattern of adhesive regions 6 may be modified somewhat so as to produce for example semicircular or other distinctive shapes, rather than the castellations shown in Figures 2 and 3.

[0025] The invention also includes further modifications and variations falling within the scope of the claims hereinafter.

Claims

1. A filter (2) for a smoking article, comprising a plug (4) of filter material having a generally cylindrical periphery with an end surface (13), and a wrapping (5) comprising sheet material held by an adhesive to the periphery of the filter material, the adhesive (6) having been applied in a predetermined pattern to the sheet material, wherein the adhesive contains a smoking article flavourant, **characterised in that** the flavourant is naturally coloured and the adhesive material is arranged in stripes along the sheet material thereby providing a series of separate, visually discernable flavourant coloured portions spaced apart around the perimeter of the end surface.
2. A filter according to claim 1 wherein the visually discernable portions present a castellated pattern around the perimeter of the circular end surface.
3. A filter according to claim 1 or 2 wherein the adhesive material comprises PVA.
4. A filter according to any preceding claim wherein the naturally coloured flavourant comprises a brand distinctive flavourant.
5. A filter according to any preceding claim including an additive in the adhesive that provides a visual contrast with the filter.
6. A filter according to claim 5 wherein the additive is charcoal.
7. A filter according to any preceding claim wherein the wrapping comprises a plugwrap for the filter material.
8. A smoking article including a filter according to any preceding claim.

9. A smoking article according to claim 8 comprising a rod (1) of tobacco based material attached to the filter
10. A smoking article according to claim 8 comprising a cigarette with a rod of tobacco attached to the filter by a tipping paper, wherein the adhesive that contains the flavourant is applied to the tipping paper.
11. A method of manufacturing a filter for a smoking article, comprising attaching a wrapping to the periphery of a plug of filter material having a generally cylindrical periphery and an end surface, with an adhesive that contains a smoking article flavourant, **characterised in that** the flavourant is naturally coloured and the adhesive material is arranged in stripes along the sheet material thereby providing a series of separate, visually discernable flavourant coloured portions spaced apart around the perimeter of the end surface.
12. A method according to claim 11 including applying the adhesive to a sheet material in stripes along the sheet material and wrapping the sheet material around the filter material.
13. A method according to either of claims 11 or 12 including attaching a rod of smokeable material to the filter.
14. A method according to claim 13 including attaching the rod to the filter with a tipping paper utilising the adhesive that contains the flavourant.

Patentansprüche

1. Filter (2) für einen Rauchartikel bzw. einen rauchbaren Artikel mit einem Stopfen bzw. Plug (4) aus Filtermaterial mit einem im Allgemeinen zylindrischen Umfang mit einer End- bzw. Stirn-Oberfläche (13), und mit einer Umhüllung (5) mit Blatt- bzw. Flächenmaterial, das durch einen Klebstoff an dem Umfang des Filtermaterials gehalten wird, wobei der Klebstoff (6) in einem vorherbestimmten Muster auf das Blattmaterial aufgebracht worden ist, und wobei der Klebstoff ein Flavourmittel für den rauchbaren Artikel enthält, **dadurch gekennzeichnet, dass** das Flavourmittel natürlich gefärbt ist und das Klebstoffmaterial in Streifen längs des Blattmaterials angeordnet ist, wodurch eine Folge von separaten, visuell wahrnehmbaren bzw. unterscheidbaren gefärbten Bereichen aus Flavourmittel zur Verfügung gestellt werden, die rund um die äußere Begrenzung bzw. den Umfang der Stirn-Oberfläche im Abstand angeordnet sind.
2. Filter nach Anspruch 1, wobei die visuell unterscheidbaren Bereiche ein Zinnen-Muster (castella-

ted pattern) rund um den Umfang der kreisförmigen Stirn-Oberfläche präsentieren.

3. Filter nach Anspruch 1 oder 2, wobei das Klebstoffmaterial PVA aufweist.
4. Filter nach einem der vorhergehenden Ansprüche, wobei das natürlich gefärbte Flavourmittel ein für eine Marke charakteristisches Flavourmittel aufweist.
5. Filter nach einem der vorhergehenden Ansprüche mit einem Additiv in dem Klebstoff, das einen visuellen Kontrast zu dem Filter schafft.
6. Filter nach Anspruch 5, wobei das Additiv Holzkohle ist.
7. Filter nach einem der vorhergehenden Ansprüche, wobei die Umhüllung eine Stopfenumhüllung (plug wrap) für das Filtermaterial aufweist.
8. Rauchartikel bzw. rauchbarer Artikel mit einem Filter gemäß einem der vorhergehenden Ansprüche.
9. Rauchbarer Artikel nach Anspruch 8 mit einem Strang (1) aus auf Tabak basierendem Material, der an dem Filter angebracht ist.
10. Rauchbarer Artikel nach Anspruch 8 mit einer Zigarette mit einem Tabakstrang, der an dem Filter durch ein Belagpapier angebracht ist, wobei der Klebstoff, der das Flavourmittel enthält, auf das Belagpapier aufgebracht wird.
11. Verfahren zur Herstellung eines Filters für einen Rauchartikel bzw. einen rauchbaren Artikel, umfassend die Befestigung einer Umhüllung auf dem Umfang eines Stopfens aus Filtermaterial mit einer(m) im Allgemeinen zylindrischen Peripherie bzw. Umfang und einer End- bzw. Stirn-Oberfläche, und mit einem Klebstoff, der ein Flavourmittel für den rauchbaren Artikel enthält, **dadurch gekennzeichnet, dass** das Flavourmittel natürlich gefärbt wird und das Klebstoff-Material in Streifen längs des Blattmaterials angeordnet wird, wodurch eine Folge bzw. Serie von separaten, visuell wahrnehmbaren bzw. unterscheidbaren gefärbten Bereichen aus Flavourmittel zur Verfügung gestellt werden, die rund um den Umfang der Stirn-Oberfläche angeordnet sind.
12. Verfahren nach Anspruch 11 mit Aufbringen des Klebstoffs auf ein Blattmaterial in Streifen längs des Blattmaterials und Wickeln bzw. Umhüllen des Blattmaterials rund um das Filtermaterial.
13. Verfahren nach Anspruch 11 oder 12 mit Anbringen eines Strangs aus rauchbarem Material an dem Fil-

ter.

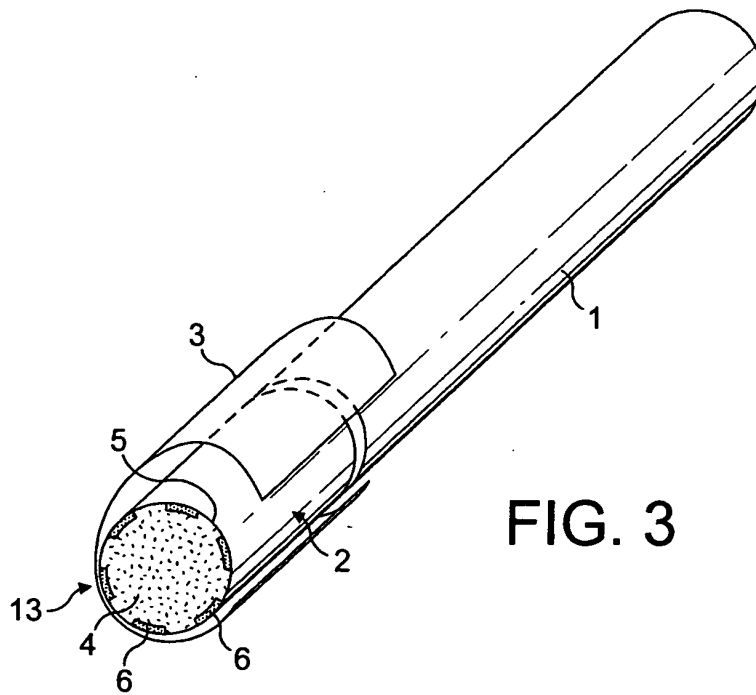
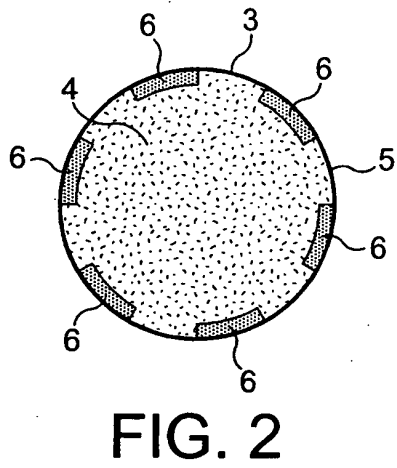
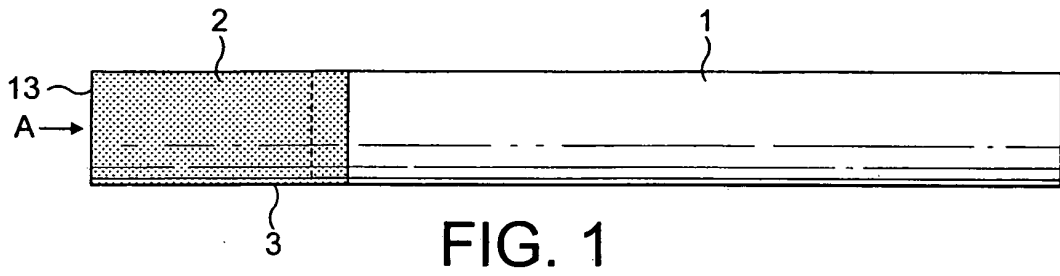
14. Verfahren nach Anspruch 13 mit Anbringen des Strangs an dem Filter mit einem Belagpapier, das den Klebstoff verwendet, der das Flavormittel enthält.

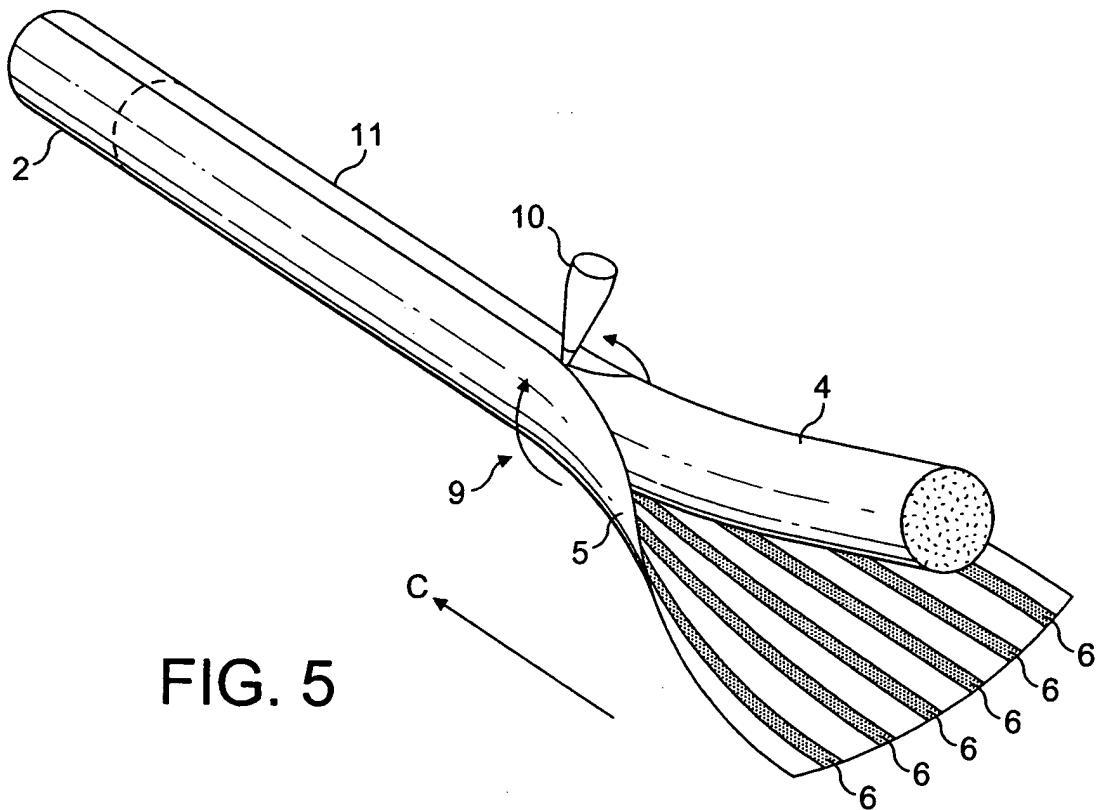
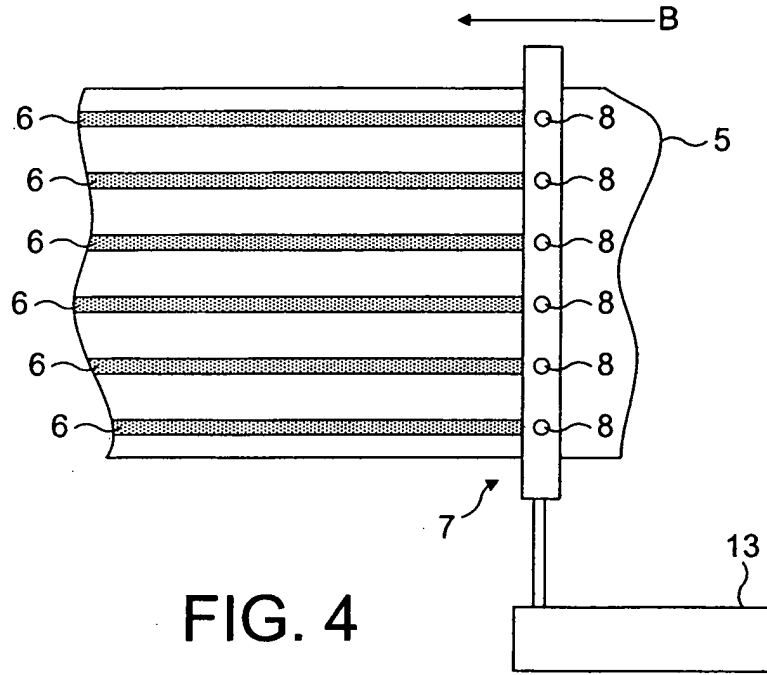
Revendications

1. Filtre (2) pour un article à fumer, comprenant un bout-filtre (4) de matière filtrante ayant une périphérie généralement cylindrique avec une surface d'extrémité (13), et une enveloppe (5) comprenant un matériau en feuille maintenu par un adhésif à la périphérie de la matière filtrante, l'adhésif (6) ayant été appliqué en un motif prédéterminé au matériau en feuille, dans lequel l'adhésif contient un agent aromatisant d'article à fumer, **caractérisé en ce que** l'agent aromatisant est naturellement coloré et le matériau adhésif est agencé en bandes le long du matériau en feuille, réalisant de ce fait une série de parties colorées d'agent aromatisant séparées, discernables visuellement, espacées autour du périmètre de la surface d'extrémité.
2. Filtre selon la revendication 1, dans lequel les parties discernables visuellement présentent un motif cranté autour du périmètre de la surface d'extrémité circulaire.
3. Filtre selon la revendication 1 ou 2, dans lequel le matériau adhésif comprend du PVA.
4. Filtre selon l'une quelconque des revendications précédentes, dans lequel l'agent aromatisant naturellement coloré comprend un agent aromatisant distinctif de la marque.
5. Filtre selon l'une quelconque des revendications précédentes, comprenant un additif dans l'adhésif qui réalise un contraste visuel avec le filtre.
6. Filtre selon la revendication 5, dans lequel l'additif est du charbon de bois.
7. Filtre selon l'une quelconque des revendications précédentes, dans lequel l'enveloppe comprend un papier pour filtre pour la matière filtrante.
8. Article à fumer comprenant un filtre selon l'une quelconque des revendications précédentes.
9. Article à fumer selon la revendication 8, comprenant une tige (1) de matière à base de tabac attachée au filtre.
10. Article à fumer selon la revendication 8, comprenant

une cigarette avec une tige de tabac attachée au filtre par un papier de manchette, dans lequel l'adhésif qui contient l'agent aromatisant est appliqué au papier de manchette.

11. Procédé de fabrication d'un filtre pour un article à fumer, consistant à attacher une enveloppe à la périphérie d'un bout-filtre de matière filtrante ayant une périphérie généralement cylindrique et une surface d'extrémité, avec un adhésif qui contient un agent aromatisant d'article à fumer, **caractérisé en ce que** l'agent aromatisant est naturellement coloré et le matériau adhésif est agencé en bandes le long du matériau en feuille, réalisant de ce fait une série de parties colorées d'agent aromatisant séparées, discernables visuellement, espacées autour du périmètre de la surface d'extrémité.
12. Procédé selon la revendication 11, consistant à appliquer l'adhésif à un matériau en feuille en bandes le long du matériau en feuille et à enrouler le matériau en feuille autour de la matière filtrante.
13. Procédé selon l'une ou l'autre des revendications 11 et 12, consistant à attacher une tige de matière pouvant être fumée au filtre.
14. Procédé selon la revendication 13, consistant à attacher la tige au filtre par un papier de manchette en utilisant l'adhésif qui contient l'agent aromatisant.





REFERENCES CITED IN THE DESCRIPTION

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