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(54) **TOBACCO ARTICLE COMPRISING A LAMINATED TIPPING PAPER**

(57) The present invention concerns a tobacco article (10), comprising a wrapped tobacco portion (12), a filter portion (14), a plug wrap (22) wrapping the filter portion (14) and a laminated tipping paper (21) comprising:

an inner layer (21A) wrapping at least a part of the wrapped tobacco portion (12) together with the filter portion (14) and being attached to the plug wrap (22);
an outer layer (21B) arranged around the inner layer

(21A).

The outer layer (21B) of the tipping paper (21) comprises:

- a fixed part (31A) directly fixed to a surface of an upstream part of the inner layer (21A); and
- a peelable part (31B) covering a surface of a downstream part of the inner layer (21A) and configured to be peeled before using the tobacco article (10).

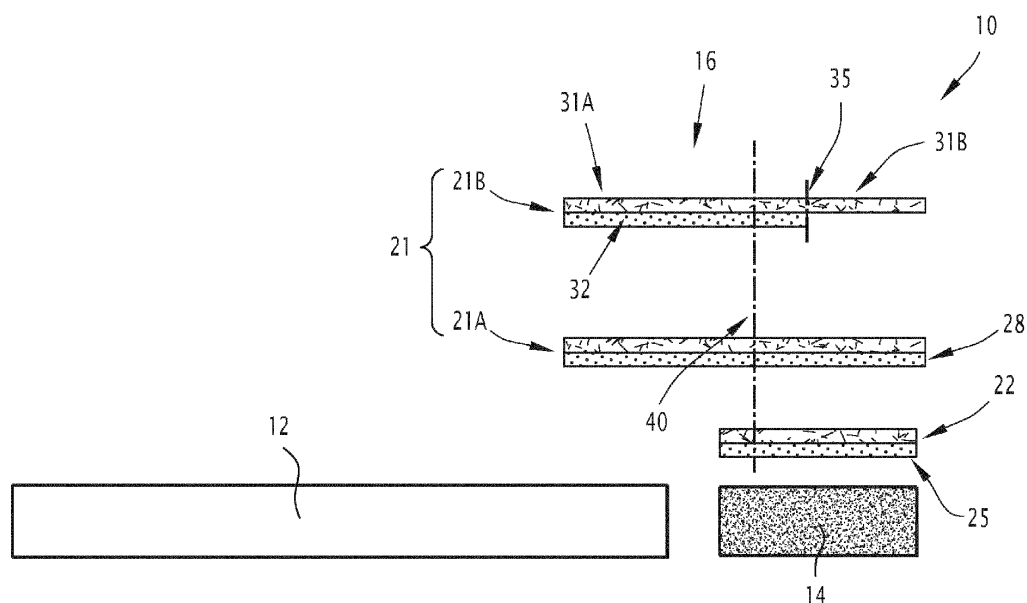


FIG.2

Description**FIELD OF THE INVENTION**

[0001] The present invention concerns a tobacco article comprising a laminated tipping paper.

[0002] According to a particular embodiment of the invention, the tobacco article according to the invention is configured to operate with an aerosol generating device, also known as a heat-not-burn device or HNB device. Such type of aerosol generating devices is adapted to heat, rather than burn, an aerosol generating substrate comprised in the article.

[0003] Alternatively, the tobacco article according to the invention is a ready-made cigarette (RMC) comprising an aerosol generating substrate configured to release aerosol when being burnt.

BACKGROUND OF THE INVENTION

[0004] In conventional tobacco articles such as cigarettes, a plug wrap is used to wrap one or more filter segments and has certain porosity or perforated ventilation and coefficient friction. This porosity or perforated ventilation in combination with a pre-perforated tipping paper is usually needed to allow good ventilation of a stream flow passing through the filter. In such type of articles, the tipping paper is also used to ensure a filter connection to a tobacco portion of the article. Additionally, the tipping paper is designed to be in contact with the user's lips and defines for this purpose an appropriate roughness and design. Thus, a conventional tobacco article usually defines at least a double wrap layer where each layer has its specific role. Additionally, if two or more segments are used in a filter, an individual plug wrap is necessary for each segment. In this case, a combined plug wrap for combining the segments together and a tipping paper (or outermost layer of wrapper) for combining the multi-segment filter with the tobacco plug are necessary. In total, this makes three layers of wrapper. This constrains the tobacco article manufacturing process without adding substantial benefits.

[0005] The outermost layer of wrapper is usually designed to be in contact with the user's lips. However, nowadays, hygiene becomes more and more important for the users and additional precautionary measures to ensure hygiene may be required.

SUMMARY OF THE INVENTION

[0006] One of the aims of the invention is to provide a tobacco article with improved hygienic properties, without modifying substantially its manufacturing process.

[0007] For this purpose, the invention relates to a tobacco article comprising:

- a wrapped tobacco portion;
- a filter portion forming a mouth end;

- a plug wrap wrapping the filter portion;
- a laminated tipping paper comprising:

an inner layer wrapping at least a part of the wrapped tobacco portion together with the filter portion and being attached to the plug wrap, the inner layer defining a downstream part adjacent to the mouth end and an upstream part opposite to the downstream part;

an outer layer arranged around the inner layer;

wherein the outer layer of the tipping paper comprises:

- a fixed part directly fixed to a surface of the upstream part of the inner layer; and
- a peelable part covering a surface of the downstream part of the inner layer and configured to be peeled before using the tobacco article.

[0008] Thanks to these features, the peelable part of the outer layer can be peeled before using the article and uncover a part of the inner layer of the laminated tipping paper. Thus, it is possible to achieve a hygiene protection to the user since the inner layer of the laminated tipping paper, before being put in the user's mouth, does not interact with external objects or for example user's fingers.

[0009] Additionally, since the fixed part of the outer layer is fixed to the inner layer, both layers of the tipping paper can form a laminated structure. The laminated tipping paper can be provided as such and then, applied as a conventional tipping paper using a cigarette making machine. Alternatively, the outer layer of the tipping paper can be applied separately from the inner layer of the tipping paper. In this last case, the tobacco article can be first formed in the conventional way and then, the outer layer of the tipping paper is attached partially to the inner layer of the tipping paper. In both cases, the manufacturing process is not substantially modified in comparison with the manufacturing process of a conventional tobacco article.

[0010] Advantageously, the outer layer of the tipping paper is in contact neither with the plug wrap nor with the tobacco portion. The outer layer can be attached only to the inner layer of the tipping paper.

[0011] According to some embodiments the fixed part is fixed to the surface of the upstream part of the inner layer by a tipping adhesive layer.

[0012] The adhesive layer used to fix both layers of the tipping paper may be substantially identical to the adhesive layer used conventionally to fix the tipping paper to the plug wrap. Such a layer of adhesive forms a permanent bond so that it cannot be peeled without damaging one or both fixed layers.

[0013] According to another embodiment, a different adhesive layer can be used. This layer can for example be specially adapted to ensure a firm bonding of both layers of the laminated tipping paper.

[0014] A preferred adhesive layer is polyvinyl alcohol (PVA) starch or copolymer based material. Its application amount to the whole surface may be around 4 mg. The viscosity of this material can be comprised between 6 500 and 8 000 cps. In a variant, an adhesive used conventionally between a tipping paper and a plug wrap is used.

[0015] According to some embodiments the tipping adhesive layer extends according to substantially the whole area of the fixed part.

[0016] Thanks to these features, the fixed part of the outer layer of the tipping paper can be firmly fixed to the inner layer of the tipping paper. Thus, while peeling, the fixed part remains bonded to the corresponding surface of the inner layer of the tipping paper that preserves a good appearance of the article after the peeling. Additionally, it minimizes the risk of an accidental tearing of the fixed part.

[0017] According to some embodiments, the tobacco article further comprises a plurality of ventilation holes arranged circumferentially and extending through the plug wrap, the inner layer and the fixed part of the outer layer of the laminated tipping paper.

[0018] This particular arrangement of the ventilation holes in respect with the peelable and fixed parts keeps unchanged the quality of the flow delivered to the user in comparison with conventional tobacco articles. Particularly, using this arrangement, it is possible to ensure a ventilation stream flow inside the filter portion as it is the case of conventional tobacco articles.

[0019] Moreover, contrary to some conventional articles, neither the plug wrap nor the tipping paper (inner or outer layers) according to the invention need to be porous. Both layers of the tipping paper can for example be made from a similar material. This doesn't change the user perception of the mouth end of the article on the lips of the user.

[0020] According to some embodiments, the ventilation holes are formed by online laser perforation.

[0021] The online laser perforation device can be mounted on the cigarette making machine used to manufacture the tobacco articles according to the invention.

[0022] According to some embodiments, the ventilation holes extend through the adhesive layer.

[0023] It is advantageous that the adhesive layer fixing together the inner and outer layers of the tipping paper extends through the zone of the fixed part of the outer layer comprising the ventilation holes. Preferably, the adhesive layer extends from the ventilation holes to the peelable part according to a minimum distance of at least 1 mm, preferably at least 2 mm. This avoids flow leakage between the layers of the tipping paper so as the whole amount of the airflow passes inside the filter portion. Flow leakage can not only alter the quality of the flow inside the article but also deteriorate user experience when it is directed toward the user.

[0024] According to some embodiments, the fixed part is delimited from the peelable part by a weakening line.

[0025] The weakening line may, for example be formed by a prescored line of the outer layer of the tipping paper. The prescored line can be arranged fully around the circumference of the tobacco article. The distance between the holes of the line can be comprised between 1 and 2 mm. The width of the holes can be substantially equal to 0,5 mm. Their length can be comprised between 0,5 and 1 mm. The line may be prescored by laser on the flat paper blank before it is formed into the outer layer of the tipping paper. The prescoring can be done online or offline. According to an alternative embodiment, the line may be done using a rotating circular knife.

[0026] The holes of the weakening line can take various shapes. Such a shape can for example be circular, square, rectangular or a water drop shape. For example, when a laser perforation is used, a water drop shape can be formed for each hole. When a circular knife is used, a square or rectangular shape can be formed for each hole.

[0027] According to some embodiments, the weakening line extends circumferentially.

[0028] Thanks to these features, the peeling of the peelable part can be performed by the user in a simple way. Additionally, this avoids tearing of the fixed part and improves the appearance of the tobacco article after removing the peelable part.

[0029] According to some embodiments, the ventilation holes are spaced from the weakening line.

[0030] Thanks to these features, the ventilation holes can extend fully through the fixed part of the outer layer of the tipping paper even after peeling of the peelable part. Thus, the geometry and structure of the ventilation holes can be the same as in the case of a conventional cigarette. Additionally, this arrangement reduces the risk of breaking their geometry or structure when the user tears for example accidentally a part of the fixed part, while peeling the peelable part. The ventilation holes may be produced by laser perforation with a diameter between 100 μm and 500 μm or by electrostatic perforation for ventilation holes or smaller diameter (e.g., between 30 μm and 100 μm or smaller).

[0031] The ventilation holes can be advantageously smaller than the holes of the weakening line. Particularly, the ventilation holes are adapted to allow air entering whereas the weakening line is adapted to allow easier detaching of the peelable part. Additionally, the ventilation holes can have a shape which is different from the shape of the holes of the weakening line. For example, a circular shape can be used for the ventilation holes and an elongated shape (rectangular or water drop shape) can be used for the holes of the weakening line.

[0032] According to some embodiments, the peelable part is adapted to be detached from the fixed part by twisting.

[0033] Thanks to these features, the peelable part can be detached from the fixed part by a simple and intuitive movement by the user. For this purpose, the weakening line separating the peelable and fixed parts can be adapt-

ed to be teared upon twisting.

[0034] According to some embodiments, the peelable part further comprises a flap configured to be actuated to peel the peelable part.

[0035] Thanks to these features, the user can use the flap to pull the flap and remove the peelable part. Thus, the separation of the peelable part from the fixed part can be easily done. The flap is preferably formed as a circumferential extension of the peelable part having a width smaller than the total width of the peelable part. The flap is preferably closer to the mouth end of the filter portion than to the fixed part to facilitate handling.

[0036] According to some embodiments, the peelable part is fixed to the downstream part of the inner layer of the laminated tipping paper by at least one fixing point detachable upon peeling.

[0037] For example, the peelable part can comprise a unique fixing point or a finite number of fixing points, for example two, three or four fixing points. The fixing point or points are configured to break or detach during peeling of the peelable part. In other words, the or each fixing point presents a low bonding strength. Thus, the peelable part can be attached to the inner layer when the article is not used and can be easily detached by the user before peeling the peelable part. One or several fixing points can be arranged on an internal surface of the peelable part so as to facilitate its detachment. For example, at least one fixing point can be arranged under the flap. At least one fixing point can be arranged close to the flap, for example at a distance less than 1 mm. At least one fixing point can be arranged close to an edge or in the middle of the peelable part. The or each fixing point can present a small dot in shape of circle not more than 1 mm of diameter.

[0038] According to some embodiments, the peelable part is in free contact with the downstream part of the inner layer of the laminated tipping paper.

[0039] According to some embodiments, the inner layer of the laminated tipping paper has a water resistant and/or a flavour releasing coating and/or a printed design and/or embossed roughness at the downstream part.

[0040] The water resistant coating of the inner layer of the tipping paper can allow to the inner layer direct interaction with the user's saliva without deteriorating its other properties. Thus, the user's lips can interact directly with the inner layer of the tipping paper.

[0041] The flavour releasing coating can allow releasing of a particular substance upon interaction with the user's lips or saliva. This substance can for example be a flavoring substance. The coating can be starch or copolymer based. The coating material can be acrylic, ethyl cellulose or PVA.

[0042] The printed design and/or embossed roughness of the inner layer of the tipping paper can give to this inner layer the same appearance as a conventional tipping paper. For example, the inner layer can be colored as a conventional tipping paper and can present the same visual design as a conventional tipping paper. Addition-

ally, using an embossed roughness can give to the user the same haptic effect as a conventional tipping paper.

[0043] According to some embodiments, the inner layer and the outer layer of the laminated tipping paper extend according to a same length.

[0044] Thanks to these features, the manufacturing of the laminated tipping paper can be easily carried out. Particularly, two sheets of identical dimensions can be used to form both layers of the tipping paper.

[0045] More generally, the unpeeled outer layer can present exactly the same dimensions as the inner layer.

[0046] According to some embodiments, the inner layer and the outer layer of the laminated tipping paper are formed from substantially the same material.

[0047] Both layers of the laminated tipping paper can be done from the same as the material forming a conventional tipping paper.

[0048] Alternatively, at least one of the layers of the tipping paper, advantageously the inner layer, has at least one of the following characteristics substantially equal to the corresponding characteristic of a conventional tipping paper:

- thickness;
- tensile strength;
- strain at break;
- felt side Bekk smoothness;
- wire side Bekk smoothness;
- Cobb value;
- porosity;
- stiffness;
- opacity;
- brightness.

[0049] Thus, at least one of the layers of the tipping paper, advantageously the inner layer, has at least one of the following characteristics:

- a basis weight comprised between 30 g/m² and 50 g/m², and advantageously substantially equal to 35 g/m²;
- a thickness above 36 μm and advantageously substantially equal to 40 μm;
- a tensile strength above 25 N/15 mm and advantageously substantially equal to 30 N/15 mm;
- a strain at break above 1,5% and advantageously substantially equal to 1,7%;
- a felt side Bekk smoothness above 130 s;
- a wire side Bekk smoothness substantially equal to 80 s;
- a Cobb value of the wire side comprised between 10 g/m² and 16 g/m² and advantageously substantially equal to 13 g/m²;
- a porosity substantially less than 1,5 CU.

[0050] These characteristics can be combined in any suitable manner.

BRIEF DESCRIPTION OF THE DRAWINGS

[0051] The invention and its advantages will be better understood upon reading the following description, which is given solely by way of none-limiting examples and which is made with reference to the appended drawings, in which:

- Figure 1 is a schematic view of a tobacco article according to the invention, the tobacco article comprising a plug wrap and a laminated tipping paper;
- Figure 2 is a schematic exploded view showing a respective arrangement of the plug wrap and the laminated tipping paper of Figure 1, the laminated tipping paper comprising an outer layer comprising a fixed part and a peelable part, the peelable part being in an attached position;
- Figure 3 is a schematic exploded view of the laminated tipping paper of Figure 1 where the peelable part of the outer layer is in a detached position and removed from the fixed part; and
- Figure 4 is a schematic view of the peelable part of the outer layer of the tipping paper of Figure 1.

DETAILED DESCRIPTION OF THE INVENTION

[0052] Before describing the invention, it is to be understood that it is not limited to the details of construction set forth in the following description. It will be apparent to those skilled in the art having the benefit of the present disclosure that the invention is capable of other embodiments and of being practiced or being carried out in various ways.

[0053] The expression "**substantially equal to**" is understood hereinafter as an equality at plus or minus 10% and preferably at plus or minus 5%.

[0054] As used herein, the term "**aerosol generating device**" or "**device**" may include a vaping device to deliver aerosol from a tobacco article received in the device, for example comprising tobacco. The device may be portable. "Portable" may refer to the device being for use when held by a user. The device may be adapted to generate a variable amount of aerosol, e.g. by activating a heating system for a variable amount of time (as opposed to a metered dose of aerosol) using a trigger. The trigger may be user activated, such as a vaping button and/or inhalation sensor. The inhalation sensor may be sensitive to the strength of inhalation as well as the duration of inhalation to enable a variable amount of vapor to be provided (so as to mimic the effect of smoking a conventional combustible smoking article such as a cigarette, cigar or pipe, etc.).

[0055] As used herein, the term "**aerosol generating substrate**" or "**aerosol substrate**" or "**tobacco substrate**" may refer to a material that is designed to deliver

aerosol upon heating in an aerosol generating device and which may for example comprise nicotine or tobacco and an aerosol former. Tobacco may take the form of various materials such as shredded tobacco, tobacco cut filler, granulated tobacco, tobacco leaf and/or reconstituted tobacco. Reconstituted tobacco can be produced in the form of a sheet by any suitable process such as paper making process, cast sheet, extrusion/lamination. The sheet can then be gathered, cut or shredded, optionally mixed with cellulose or other fillers, tobacco lamina, stems, aerosol former, additives, flavour (e.g., menthol), acid (e.g., benzoic acid), and wrapped in a wrapper to form a tobacco portion. The filling density of the tobacco portion is not particularly limited, but is usually 250 mg / cm³ to 900 mg / cm³ from the viewpoint of ensuring the performance of the tobacco portion and imparting a good taste. Suitable aerosol formers include: a polyol such as sorbitol, glycerol, and glycols like propylene glycol or triethylene glycol; a non-polyol such as monohydric alcohols, acids such as lactic acid, glycerol derivatives, esters such as triacetin, triethylene glycol diacetate, triethyl citrate, 1,3-butanediol, glycerin or vegetable glycerin. Suitable amount of aerosol former may be between e.g., 5 wt. % and 50 wt.% of the substrate. In some embodiments, the aerosol generating agent may be glycerol, propylene glycol, or a mixture of glycerol and propylene glycol. The substrate may also comprise at least one of a gelling agent, a binding agent, a stabilizing agent, and a humectant.

[0056] As used herein, the term "**aerosol**" may include a suspension of precursor as one or more of: solid particles; liquid droplets; gas. Said suspension may be in a gas including air. Aerosol may be formed by the aerosol generating substrate and may comprise one or several components of it. The aerosol is generally obtained by a temperature increase of the aerosol generating substrate, such as at a temperature less than 400°C, preferably up to 350°C.

[0057] As used herein, the term "**vaping session**" may refer to a using period of the aerosol generated device starting from the activation of the trigger defined above to the moment in which the aerosol generation device is disabled.

[0058] As used herein the terms "**upstream**" and "**downstream**" refer to a position relative to the direction of the flow in the article towards the mouth end.

[0059] As used herein the term "**longitudinal**" refers to the extension direction of the tobacco article.

[0060] In reference to Figure 1, the tobacco article 10 extends between a mouth end and tobacco end. The tobacco article 10 comprises a wrapped tobacco portion 12 forming the tobacco end, a filter portion 14 forming the mouth end, an article wrapper 16 and in some embodiments, a cooling or distancing element (not-shown) arranged between the wrapped tobacco portion 12 and the filter portion 14 or in the filter portion 14. According to some embodiments, the tobacco article 10 is a cigarette that can be used in a conventional way, i.e. by burn-

ing at least partially the wrapped tobacco portion 12. According to some other embodiments, the tobacco article 10 is designed to be a heat-not-burn aerosol generating article used with an aerosol generating device, such an HNB device where the wrapped tobacco portion 12 is heated and not burnt. The tobacco article 10 has for example a cylindrical shape with a circular cross-section.

[0061] In a preferred example, the length of the wrapped tobacco portion 12 is comprised between 10 and 50 mm. The length of the wrapped tobacco portion depends on the type of tobacco article (combustible or heat-not-burn).

[0062] The wrapped tobacco portion 12 contains an aerosol generating substrate as defined above. The wrapped tobacco portion 12 is wrapped in a wrapper (not-shown) which is advantageously rolled around the whole length of the tobacco portion and keeps the ends of the tobacco portion unwrapped. This wrapper is for example formed by a known cigarette paper.

[0063] The filter portion 14 contains any material or a combination of materials forming a filter of an airflow generated during heating or burning the tobacco portion 12. The filter portion 14 may thus comprises cellulose acetate fiber and/or paper. The filter portion may be formed of a densified bundle of filaments, in particular of cellulose acetate tow, or be a gathered paper sheet. The filter portion may comprise additives such as a plasticizer, for example triacetin. In some embodiments, the filter portion 14 may further comprise a flavouring element, like a flavouring capsule breakable by the user and/or soluble by heating and/or interaction with saliva.

[0064] The wrapped tobacco portion 12, the filter portion 14 and optionally the cooling or distancing element are maintained together with the article wrapper 16. For example, the cooling or distancing element may comprise a paper tubular element. In reference to Figure 2, the article wrapper 16 comprises a laminated tipping paper 21 and a plug wrap 22. Particularly, the laminated tipping paper 21 is rolled around the plug wrap 22 and around a part of the wrapped tobacco portion 12 as it will be explained in further detail below.

[0065] The plug wrap 22 is designed to wrap the filter portion 14 and extends for example according to the whole length of the filter portion 14. The plug wrap 22 is formed from a single sheet rolled around the filter portion 14. The plug wrap 22 can be formed from any material used conventionally for plug wraps. Advantageously, this material is substantially unporous. The plug wrap 22 can be glued to the material forming the filter portion 14 via a layer 25 shown in Figures 2 and 3.

[0066] The laminated tipping paper 21 is designed to fix the filter portion 14 with the plug wrap 22 to the wrapped tobacco portion 12. For this, purpose the laminated tipping paper 21 has an overlapping zone with each of the plug wrap 22 and the wrapped tobacco portion 12.

[0067] In the example of Figure 2, the overlapping zone with the plug wrap 22 extends according to the whole area of the plug wrap 22 and the overlapping zone with

the wrapped tobacco portion 12 extends according to a part of the wrapped tobacco portion 12. The longitudinal extension of this last part (i.e. overlapping zone with the wrapped tobacco portion 12) is comprised for example between 10% and 60% of the longitudinal extension of the wrapped tobacco portion 12.

[0068] According to the invention, the laminated tipping paper 21 comprises an inner layer 21A and an outer layer 21B.

[0069] The inner layer 21A defines a downstream part adjacent to the mouth end of the tobacco article 10 and an upstream part opposite to the downstream part and adjacent to the wrapped tobacco portion 12. The inner layer 21A is arranged to form the overlapping zones of the laminated tipping paper 21 with the plug wrap 22 and with the wrapped tobacco portion 12. Particularly, the inner layer 21A is arranged to be in contact with the plug wrap 22 and the wrapped tobacco portion 12. This contact can be direct or via an adhesive layer. For example, the inner layer 21A is glued in the corresponding overlapping zones by an adhesive layer 28. This adhesive layer 28 is for example similar to the adhesive layer 25 used to glue the plug wrap 22 to the material forming the filter portion 14.

[0070] The inner layer 21A can be made from a single sheet. This sheet can for example have a rectangular shape.

[0071] Additionally, the inner layer 21A can be made from a material which, for example, is conventionally used to form a tipping paper in conventional cigarettes or heated aerosol generating articles. This material is defined by several physical characteristics. Each of these characteristics is chosen for example from the group comprising:

- thickness;
- tensile strength;
- strain at break;
- felt side Bekk smoothness;
- wire side Bekk smoothness;
- Cobb value;
- porosity;
- stiffness;
- opacity;
- brightness.

[0072] Thus, the inner layer 21A can have at least one of these characteristics which is identical to the corresponding characteristic of the conventional tipping paper.

[0073] According to some embodiments, at least some of these characteristics are defined by standards, for example ISO standards.

[0074] Thus, for example, the basis weight of the inner layer 21A can be comprised between 30 g/m² and 50 g/m², preferably between 32 g/m² and 45 g/m², advantageously between 34 g/m² and 40 g/m² and preferably substantially equal to 35 g/m², or 36 g/m², or 37 g/m².

[0075] The thickness of the inner layer 21A can be

above 36 μm , preferably above 38 μm and advantageously substantially equal to 40 μm . The tensile strength of the inner layer 21A is for example above 25 N/15 mm and advantageously substantially equal to 30 N/15 mm. The strain at break of the inner layer 21A is for example above 1,5% and advantageously substantially equal to 1,7%. The felt side Bekk smoothness of the inner layer 21A is for example above 130 s and advantageously substantially equal to 200 s. The wire side Bekk smoothness is for example above 60 s, advantageously above 70 s and substantially equal to 80 s. The Cobb value of the wire side of the inner layer 21A is for example comprised between 10 g/m² and 16 g/m², preferably between 11 g/m² and 15 g/m² and advantageously substantially equal to 13 g/m². The porosity of the inner layer 21A may be comprised between 0 and 3 000 coresta, preferably 1 000 coresta, and is advantageously substantially equal to 0 coresta. The opacity of the inner layer 21A can be above 78%, preferably above 78,5% and substantially equal to 81%. The brightness of the inner layer 21A can be above 88% and substantially equal to 90%.

[0076] The inner layer 21A can have on its downstream part a visual and/or haptic design similar to the corresponding design of a tipping paper of conventional cigarettes. For example, the inner layer 21A can be coloured and/or comprise visual marks/printings as a tipping paper of conventional cigarettes. It can also have embossed roughness similar to one of a tipping paper of conventional cigarettes.

[0077] In certain embodiment, the inner layer 21A has a filler material chosen from the group of materials which contains: Kaolin, CaCO₃, TALC AND Al(OH)₃. In an example, the inner layer 21A comprises a base layer with a porosity less than 1,5 CU, wherein the base layer contains at least one filter material and it comprises a surface which is pigmented with a pigment component which contains CaCO₃ and at least a second component serving as a non-combustible filler. The pigment component preferably has a grammage of at least 2.0 gsm and the pigmented surface has a surface smoothness of at least 400 sec. The advantage of this inner layer 21A is that it has a good lip feeling during smoking without additional printing process and without use of titanium dioxide (TiO₂). An improved lip release feeling is also provided. Additional characteristics and advantages of the inner layer 21A are described in relation to a tipping paper in WO 2021019016 inserted herein by reference.

[0078] According to the invention, the downstream part of the inner layer 21A is designed to be in direct contact with the user's lips as it will be explained in detail below. The inner layer 21A can comprise thus a water resistant and/or a flavour releasing coating. The water resistant coating protects the inner layer 21A against humidity, notably against saliva and the flavour releasing coating can release flavour upon contact with the user's lips and/or saliva. Such flavour can comprise a taste improving or performance enhancing additive. Such taste im-

proving additive is for example flavourants such as menthol, peppermint, berry, lemon, peach, apple, cardamon, cherry, celery, fenugreek, bergamot, jasmine, ginger, orange oil, lemon oil, cassia, coffee, tobacco powder, herbs, spices, flavour enhancers, sugars, sugar substitutes and combinations thereof which, when being in contact with aerosol, enhances and/or modify the taste of the aerosol.

[0079] The outer layer 21B can be done from a material similar to the material of the inner layer 21A. For example, the outer layer 21B can comprise at least one of the following characteristics:

- thickness;
- tensile strength;
- strain at break;
- felt side Bekk smoothness;
- wire side Bekk smoothness;
- Cobb value;
- porosity;
- stiffness;
- opacity;
- brightness;

which is substantially identical to the corresponding characteristic of the inner layer 21A. In some embodiments, the outer layer 21B is done from the same material as the inner layer 21A.

[0080] The outer layer 21B can be done from a single sheet, having for example a rectangular shape. Advantageously, the outer layer 21B has substantially the same dimensions as the inner layer 21A. For example, the outer layer 21 B can extend according to the same length as the inner layer 21A. Advantageously, the outer layer 21B overlaps only with the inner layer 21A and does not contact with the plug wrap 22 or the wrapped tobacco portion 12.

[0081] Referring again to Figure 2, the outer layer 21B of the laminated tipping paper 21 comprises a fixed part 31A and a peelable part 31B. Advantageously, the outer layer 21B is formed of the fixed part 31A and the peelable part 31B.

[0082] The fixed part 31A is fixed to a surface comprising the upstream part of the inner layer 21A, using for example a tipping adhesive layer 32. This external surface corresponds to the overlapping zone of the laminated tipping paper 21 with the wrapped tobacco portion 12 and to a part of the overlapping zone of the laminated tipping paper 21 with the plug wrap 22.

[0083] The fixed part 31A can cover for example at least 30%, advantageously 50%, more advantageously 60% and preferably 70%, of the total area of the inner layer 21A. For example, the fixed part 31A can cover between 30% and 70% of the total area of the inner layer 21A.

[0084] The tipping adhesive layer 32 is formed for example by an appropriate glue and extends for example according to the whole area of the fixed part 31A. The

tipping adhesive layer 32 can for example be similar to the adhesive layers 28 and 25 mentioned above. Alternatively, the tipping adhesive layer 32 is different from the adhesive layers 28 and 25 mentioned above and can be adapted specially to glue layers of the laminated tipping paper 21, made of similar materials. In some embodiments, the tipping adhesive layer 32 can be uncoated. It can be easy absorption and ensure good cohesion properties to adhesive. The tipping adhesive layer 32 can be applied while manufacturing the laminated tipping paper 21. In this case, the laminated tipping paper 21 can be provided as such before manufacturing the tobacco article 10 and then, applied directly to the corresponding overlapping zones with the plug wrap 22 and the wrapped tobacco portion 12. Alternatively, the tipping adhesive layer 32 is applied while manufacturing the tobacco article. In this case, the inner layer 21A is first fixed to the corresponding overlapping zones with the plug wrap 22 and the wrapped tobacco portion 12 and then, the tipping adhesive layer 32 is applied on the inner layer 21A and/or the outer layer 21B before fixing the outer layer 21B.

[0085] The peelable part 31B is detachable from the fixed part 31A as it is shown in Figure 3 where the peelable part 31B is entirely removed. In the attached position (shown in Figure 2), the peelable part 31 covers the downstream part of the inner layer 21A and in the detached position (shown in Figure 3), the peelable part 31B uncovers this part of the inner layer 21A. Thus, the peelable part 31B in the attached position can extend according to at least 30%, preferably 40%, more preferably 50% and advantageously according to 60%, of the total area of the inner layer 21A. Advantageously, the downstream part of the inner layer 21A covered by the peelable part 31B corresponds to a zone of the filter portion 14 intended to be in contact with the user's lips.

[0086] In some embodiments, the peelable part 31B can be attached only to the fixed part 31A and can be in free contact with the inner layer 21A. In some other embodiments, the peelable part 31B can be fixed, at least slightly, to the downstream part of the inner layer 21A using one or several fixing points (non-shown). The or each fixing point can be formed as small dots by a glue ensuring a weak bonding which breakable upon tearing or pulling the peelable part 31B. The fixing points can be arranged in any suitable manner on the peelable part 31 and/or on the corresponding part of the inner layer 21A.

[0087] The peelable part 31B is separated from the fixed part 31A by a weakening line 35 also shown in Figure 4 where the tipping paper 21 in its unrolled state. The weakening line 35 extends for example circumferentially and is formed by perforations or holes. The weakening line 35 can be arranged fully around the circumference of the tobacco article. The distance between the holes of the line can be comprised between 1 and 2 mm. The width of the holes can be substantially equal to 0,5 mm. Their length can be comprised between 0,5 and 1 mm. The line may be prescored by laser on the flat paper blank before it is formed into the tipping paper. The pres-

coring can be done online or offline. According to an alternative embodiment, the line may be done using a rotating circular knife.

[0088] The holes of the weakening line 35 can take various shapes. Such a shape can for example be circular, square, rectangular or a water drop shape. For example, when a laser perforation is used, a water drop shape can be formed for each hole. When a circular knife is used, a square or rectangular shape can be formed for each hole.

[0089] As it is shown in Figure 4, in some embodiments, the peelable part 31B can further comprise a flap 37 designed to be gripped by the user to detach the peelable part 31B. The shape of the flap 37 can be configured to be easily gripped by the user when the outer layer 21B is rolled around the inner layer 21A. Thus, as it is shown in Figure 4, the peelable part 31B in its unrolled state has a substantially rectangular shape and the flap 37 extends from one of the sides of this shape, advantageously from a corner. The flap 37 can for example be arranged opposite to the weakening line 35.

[0090] Referring again to Figure 2, in some embodiments, the tobacco article 10 further comprises a plurality of ventilation holes 40 arranged circumferentially and extending from the filter portion 14 through the plug wrap 22 and the laminated tipping paper 21. Particularly, in relation with the laminated tipping paper 21, the ventilation holes 40 extends through the inner layer 21A and the fixed part 31A of the outer layer 21B. Advantageously, the tipping adhesive layer 32 extends through the zone of the fixed part 31A comprising the ventilation holes 40. The ventilation holes 40 are preferably formed by online laser perforation extending through the plug wrap 22 and the laminated tipping paper 21. For example, the diameter of each ventilation hole 40 can be comprised between 4 and 10 μm . In this case, it is possible to use a substantially unporous material to form the plug wrap 22 and both layers of the laminated tipping paper 21. The online laser perforation can be performed by a device mounted on the cigarette making machine used to manufacture the tobacco article 10. In some embodiments, this device can also form the weakening line 35.

[0091] Advantageously, as it is shown in Figure 4, the ventilation holes 40 are spaced from the weakening line 35. For example, the weakening line 35 can extend parallel to the ventilation holes 40 and can be spaced from the ventilation holes 40 by a distance comprised between 5% and 70%, advantageously between 10% and 50%, of the longitudinal extension of the fixed part 31A. As it is clear from the properties of the tipping adhesive layer 32 mentioned above, the tipping adhesive layer 32 comprises a part extending between the weakening line 35 and the ventilation holes 40 so as to avoid flow leakage between the layers of the laminated tipping paper 21. The ventilation holes 40 can be advantageously smaller than the holes of the weakening line 35. The ventilation holes 40 can have a shape which is different from the shape of the holes of the weakening line 35. For example,

a circular shape can be used for the ventilation holes 40 and an elongated shape (rectangular or water drop shape) can be used for the holes of the weakening line 35.

[0092] Before using the tobacco article 10 for smoking or vaping, the user can pull the flap 37 and detach the peelable part 31B from the fixed part 31A. This action will thus uncover a part of the inner layer 21A of the laminated tipping paper 21. This part can be then in contact with the user's lips during the smoking or vaping session. Since the inner layer 21A is made from a material similar to a conventional tipping paper, the user's experience of smoking or vaping will be similar to one of a conventional cigarette or HNB article. Additionally, due to the ventilation holes 40 extending through both plug wrap 22 and laminated tipping paper 21, the flow inside the filter portion 14 keeps the same properties as those of the flow inside a conventional cigarette.

[0093] The manufacturing of the tobacco article 10 according to the invention can be performed similarly to the manufacturing of a conventional tobacco article. As mentioned above, according to an example, the laminated tipping paper 21 can be provided as such, i.e. already assembled, and then applied to the corresponding overlapping zones with the plug wrap 22 and the wrapped tobacco portion 12, as a conventional tipping paper. According to another example, the tobacco article 10 is first made in the conventional way where instead of a conventional tipping paper, the inner layer 21A is applied. Then, at a final step, the outer layer 21B is applied to overlap the inner layer 21A using for example the tipping adhesive layer 32 as explained above.

Claims

1. A tobacco article (10), comprising:

- a wrapped tobacco portion (12);
- a filter portion (14) forming a mouth end;
- a plug wrap (22) wrapping the filter portion (14);
- a laminated tipping paper (21) comprising:

an inner layer (21A) wrapping at least a part of the wrapped tobacco portion (12) together with the filter portion (14) and being attached to the plug wrap (22), the inner layer (21A) defining a downstream part adjacent to the mouth end and an upstream part opposite to the downstream part;

an outer layer (21B) arranged around the inner layer (21A);

wherein the outer layer (21B) of the tipping paper (21) comprises:

- a fixed part (31A) directly fixed to a surface of the upstream part of the inner layer (21A); and
- a peelable part (31B) covering a surface of the

downstream part of the inner layer (21A) and configured to be peeled before using the tobacco article (10).

2. The tobacco article (10) according to claim 1, wherein the fixed part (31A) is fixed to the surface of the upstream part of the inner layer (21A) by a tipping adhesive layer (32).
3. The tobacco article (10) according to claim 2, wherein the tipping adhesive layer (32) extends according to substantially the whole area of the fixed part (31A).
4. The tobacco article (10) according to any one of preceding claims, further comprising a plurality of ventilation holes (40) arranged circumferentially and extending through the plug wrap (22), the inner layer (21A) and the fixed part (31A) of the outer layer (21B) of the laminated tipping paper (21).
5. The tobacco article (10) according to claim 4 taken in combination with claim 2 or 3, wherein the ventilation holes (40) extend through the adhesive layer (32).
6. The tobacco article (10) according to any one of the preceding claims, wherein the fixed part (31A) is delimited from the peelable part (31B) by a weakening line (35).
7. The tobacco article (10) according to claim 6, wherein the weakening line (35) extends circumferentially.
8. The tobacco article (10) according to claim 6 or 7 taken in combination with any one of claims 4 or 5, wherein the ventilation holes (40) are spaced from the weakening line (35).
9. The tobacco article (10) according to any one of the preceding claims, the peelable part (31B) is adapted to be detached from the fixed part (31A) by twisting.
10. The tobacco article (10) according to any one of the preceding claims, wherein the peelable part (31B) further comprises a flap (37) configured to be actuated to peel the peelable part (31B).
11. The tobacco article (10) according to any one of the preceding claims, wherein the peelable part (31B) is fixed to the downstream part of the inner layer (21A) of the laminated tipping paper (21) by at least one fixing point detachable upon peeling.
12. The tobacco article (10) according to any one of claims 1 to 10, wherein the peelable part (31B) is in free contact with the downstream part of the inner layer (21A) of the laminated tipping paper (21).

13. The tobacco article (10) according to any one of the preceding claims, wherein the inner layer (21A) of the laminated tipping paper (21) has a water resistant and/or a flavour releasing coating and/or a printed design and/or embossed roughness at the downstream part. 5
14. The tobacco article (10) according to any one of the preceding claims, wherein the inner layer (21A) and the outer layer (21B) of the laminated tipping paper (21) extend according to a same length. 10
15. The tobacco article (10) according to any one of the preceding claims, wherein the inner layer (21A) and the outer layer (21B) of the laminated tipping paper (21) are formed from substantially the same material. 15

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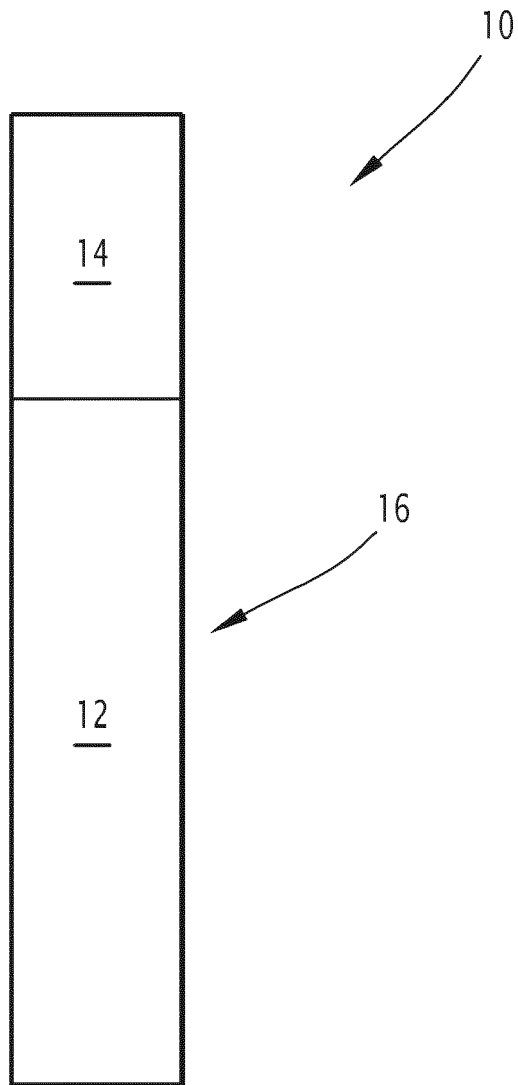


FIG.1

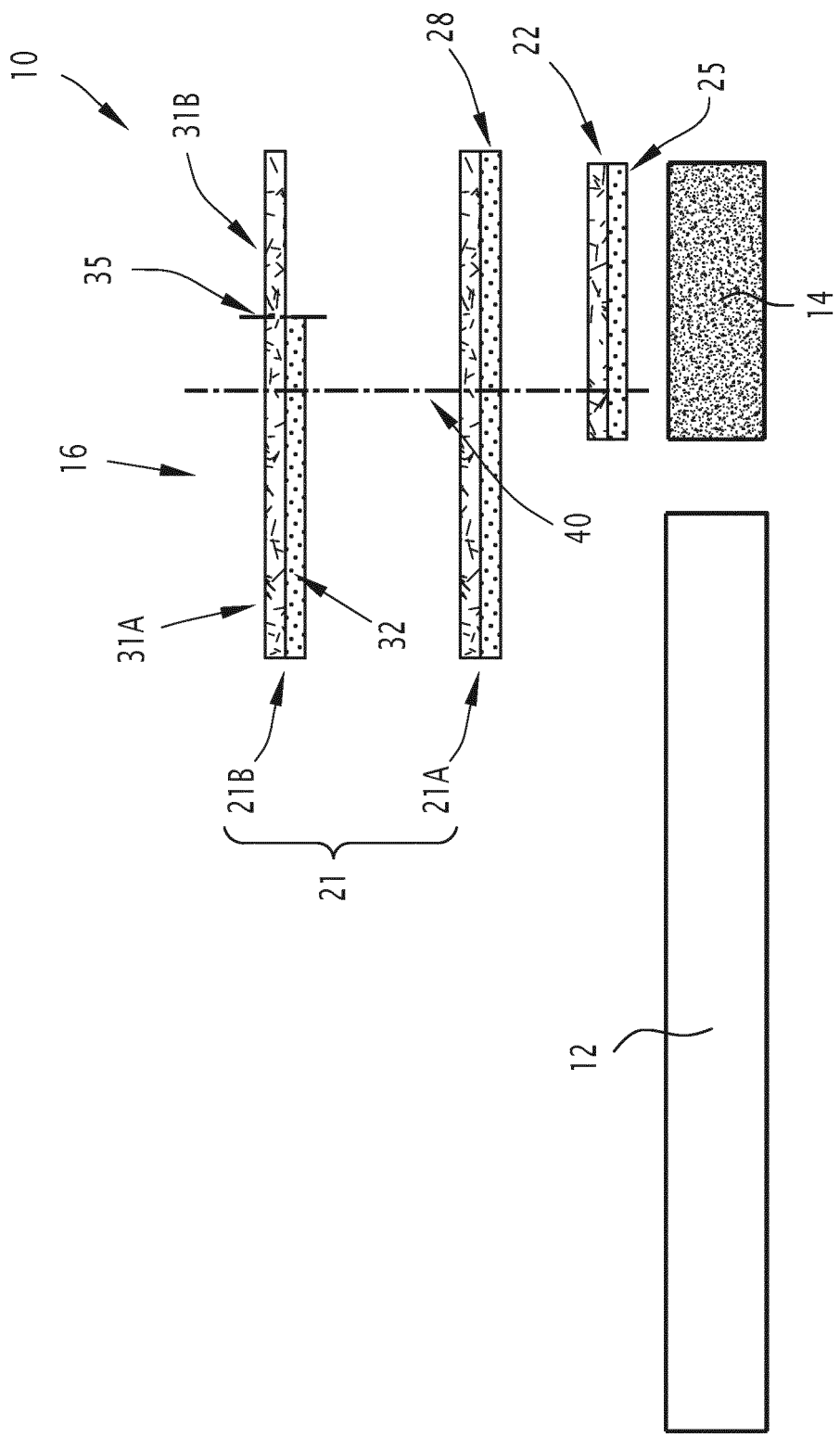


FIG.2

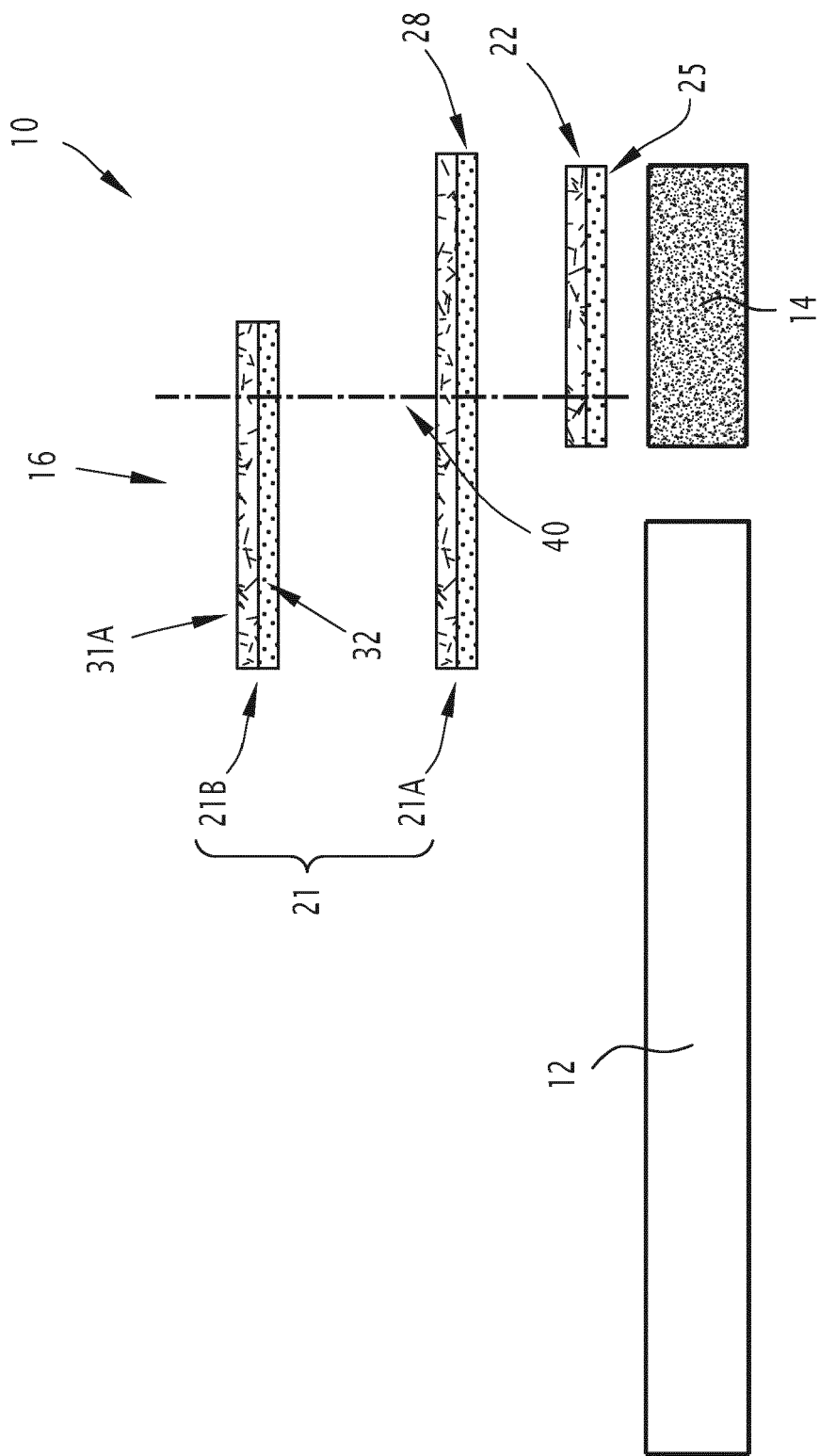


FIG.3

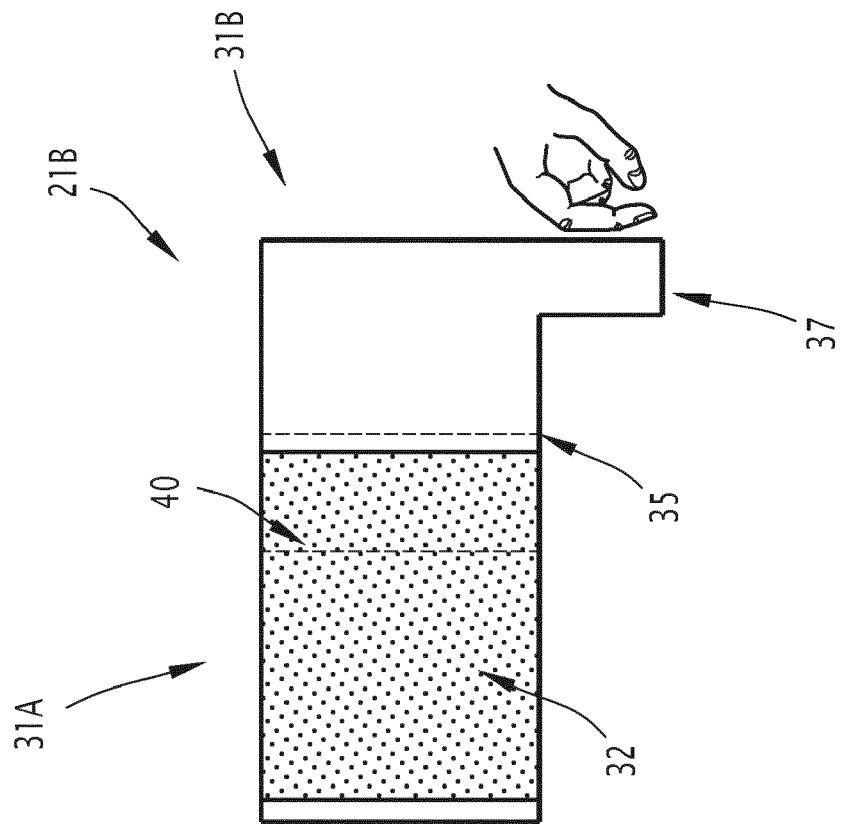


FIG. 4



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Place of search Munich		Date of completion of the search 24 August 2022	Examiner Espla, Alexandre
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