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(54) Cigar-like tobacco product and method of making such product

Zigarrenähnliches Tabakprodukt und Verfahren zur Herstellung eines solchen Produktes

Produit de tabac ressemblant à un cigare et méthode de fabrication d'un tel produit

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(73) Proprietor: **LA PAZ SIGARENFABRIEKEN B.V.**
NL-5282 ND Boxtel (NL)

(72) Inventor: **van Glabbeek, Arnoldus Henricus Johannes Gerardus**
NL-5508 AH Veldhoven (NL)

(74) Representative: **Smulders, Theodorus A.H.J., Ir.**
Vereenigde Octrooibureaux
Nieuwe Parklaan 97
2587 BN 's-Gravenhage (NL)

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The file contains technical information submitted after the application was filed and not included in this specification

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Description

The invention relates to a cigar-like product made from tobacco wrapper leaf wound helically overlapping, directly, i.e. without inserting a filler, and tightly, i.e. without fine air passages between helically overlapping wrappings, around a substantially open core extending throughout the length of the cigar-like product. The invention further relates to a method of manufacturing such a product.

Such a cigar-like tobacco product is known from US-A-1,437,956, especially in the shape of the tube shown in Fig. 2 of said document. However, said tube having an open and a closed end is merely meant to form a lost core around which a filler, a binder and a wrapper are provided to manufacture the cigar shown in Fig. 5 of said document. The tube is manufactured by helically winding in a relatively small overlapping way conform the binder and the wrapper tobacco wrapper leaf around a mandrel which stays within said tube until after the cigar is completed and dried to some extent. After removing the mandrel a substantially open core with one open end is achieved.

Moreover, DE-C-106217 shows a cigar made of tobacco waste material wound around a mandrel and covered by a wrapper. After removal of the mandrel the filler of tobacco waste material surrounds a substantially open core with a closed and an open end. A similar cigar but having a substantially open core with two open ends is known from DE-C-862 117.

It is an object of the invention to provide a new type of a cigar-like tobacco product which moreover is suitable for consumption in different ways.

In accordance with the invention, this is achieved with a product as meant in the opening paragraph in that the open core has two open ends and the tobacco wrapper leaf wound around the open core forms the outer side of the product. By virtue of the substantially open core with two open ends which open core functions as a central air passage, a product so obtained can be consumed in the same manner as a thin cigar, while it is equally possible to consume the product by chewing it because of the absence of a relatively loose filler and the fairly solid, tightly-wrapped cover around the substantially open core which can be easily bitten or pressed shut. Naturally, it is also possible to consume the product partly by smoking and partly by chewing.

The substantially open core can be realized and designed in many ways. Because it should also be possible to smoke the product, the open core should be so dimensioned that the smoke sucked from the open core is not too hot. In view of this, it is preferable, in accordance with a further embodiment of the invention, that the core is a substantially cylindrical passage, whereby in relatively simple manner optimum conditions have been created to keep the speed and temperature of the smoke sucked through the open core within a desired range.

When in accordance with a further preferred embodiment of the invention flavourings are incorporated into the product, which can be drawn from the product along with the air sucked through the open core, an extra dimension has been added to the consumption of the product in that this enables consumption of the product not only by chewing and smoking but also by sucking the product, which yields a particular taste in the mouth, naturally depending on the selected flavouring, which can be chosen from a wide range of known flavourings.

In accordance with a further embodiment of the invention, it is possible to further add flavourings that can be drawn from the product by chewing it. Optionally, these flavourings can be combined with flavourings that can be released from the product by sucking or smoking.

The invention further relates to a method of manufacturing a cigar-like product by winding helically overlapping tobacco wrapper leaf directly, i.e. without inserting a filler, and tightly, i.e. without fine air passages between helically overlapping wrappings, around a mandrel, each tobacco wrapper leaf being so processed that upon completion of the winding operation the tightly wrapped configuration is maintained said method being known from US-A-1,437,956 in the extent as discussed above. To get a new cigar-like product said method is further characterized in that the dimensions of the tobacco wrapper leaf and the pitch angle of helically wrapping are selected such that a first winding overlapped by a second winding is also overlapped by at least a third winding, and removing the mandrel upon completion of the winding operation under maintaining the tightly wrapped configuration to obtain a substantially open core throughout the length of the cigar-like product. In addition, it is equally possible to obtain a similar new cigar-like product, when according to another embodiment according to the invention the mandrel has a substantially open cross-section and the dimensions of the tobacco wrapper leaf and the pitch angle of helically wrapping are selected such that a first winding overlapped by a second winding is also overlapped by at least a third winding, with the mandrel remaining behind in the product as a lost core. Thus a new cigar-like tobacco product can be obtained, having a solid cover surrounding a substantially open core, which product can be consumed both by smoking and by chewing or a combination of the two.

As a mandrel for winding the tobacco wrapper about, preferably an elongated rod-shaped member is used, which in the case of a mandrel that is to be removed afterwards can be a wire of varying or constant circular cross-section.

If the product is to obtain a third function for consumption in addition to smoking and chewing, then, in accordance with a further embodiment of the invention, flavourings are incorporated into the product, which can be effected in different manners. For flavourings which are to be released by means of smoking or chewing, it may be preferable that flavourings are provided on or in

a tobacco wrapper before it is wound and/or that flavourings are provided between the windings during winding of the tobacco wrapper. The substantially open core, however, makes it possible to draw the flavourings from the product by sucking air through that core. In that case, it may be preferable for flavourings to be provided in the open core after winding of the tobacco wrapper. Naturally, it is equally possible to use any combination of the above described methods, depending on the manner or manners of consumption contemplated.

The provision of flavourings in the open core or in or on the surrounding parts of the solid cover can be effected by means of injection or impregnation, but can also be realized by providing flavourings on the mandrel prior to winding. If a mandrel that is to be removed from the winding is used, this can be realized in relatively simple manner by preparing the flavourings and the tobacco wrapper wound around the mandrel in such a way that the flavourings remain behind in the product.

The provision of flavourings can also be effected by means of a combination of the method using a retractable mandrel and a method using a lost core, when, in accordance with a further embodiment of the invention, the flavourings are provided on a lost core which remains behind in the product upon removal of the mandrel therefrom. A lost core may for instance be made from a cellulose fibre which has been impregnated and/or treated with flavourings, with the cellulose fibre being given any appropriate form and treatment so as to effect the desired release of the flavourings in optimum manner during chewing, smoking as well as sucking.

As noted before, in the preparation of the product according to the invention, a first winding must be covered at least partly by at least two further windings. This is necessary, on the one hand, to obtain a sufficiently solid cover for maintaining the core passage and, on the other hand, to obtain a sufficiently thick cover to permit handling of the product. Such a product can be wound from an elongated strip-shaped cut tobacco wrapper having a parallellogram-shaped circumference, with the angle between two adjacent sides corresponding with the pitch angle of the helical winding for manufacturing the product. If the product is prepared from such a tobacco wrapper, a substantially cylindrical body with circular end faces is obtained.

It will be clear that such one-by-one manufacture is fairly complicated and labour-intensive. In accordance with a further embodiment of the invention, it is accordingly preferred that the length of the mandrel is chosen to be a multiple of the length of the product and that after the winding operation and, depending on the type of mandrel used, removal of the mandrel, the intermediate so obtained is cut to form products of the desired length. After winding the wrapper onto this relatively long mandrel and, depending on the type used, removing the mandrel, the product thereby obtained is cut into pieces having the desired length, with the two terminal ends, if so desired, being regarded as waste, so that in principle any shape of tobacco wrapper can be used. In contrast with the conventional one-by-one manufacture of cigars, the present method of manufacture is partly made possible by the circumstance that both ends of the products according to the invention can be straight end faces, i.e. neither end needs to be of tapering or similar configuration owing to the solid cover and the substantially open core, although such a configuration of the ends is possible.

It goes without saying that within the framework of the invention many further modifications and variants are possible. Thus, as has been noted, a lost core may be made from a cellulose fibre which can be used up in the same way as a tobacco wrapper through smoking or chewing. Naturally, the core can also be made from a material that is not used up. A removable mandrel can for instance be a solid steel wire. However, it is equally possible to use a hollow tubular body which is porous or provided with perforations, for instance to permit injection of flavourings after winding. The flavourings can be provided during the manufacturing process of the product. However, because a large range of flavourings is already available, it is also conceivable that flavourings are supplied in capsules, so that a product can be provided with the desired flavouring or flavourings for consumption. Several times, reference has been made to the winding of one tobacco wrapper. It is explicitly noted that more than one tobacco wrapper can be used and that different layers can be wound onto each other, with the helical direction of successive layers optionally being opposite. Further, in particular when a relatively long mandrel is used, it is possible to use a tobacco wrapper roll, i.e. a multiplicity of tobacco wrappers cut to size, which have subsequently been bonded to each other to form a strip of very great length, which has been rolled up for proper processing.

Claims

1. A cigar-like product made from tobacco wrapper leaf wound helically overlapping, directly, i.e. without inserting a filler, and tightly, i.e. without fine air passages between helically overlapping wrappings, around a substantially open core extending throughout the length of the cigar-like product, characterized in that the open core has two open ends and the tobacco wrapper leaf wound around the open core forms the outer side of the product.

2. A cigar-like product according to claim 1, characterized in that the open core is a substantially cylindrical passage.

3. A cigar-like product according to claim 1 or 2, characterized by flavourings incorporated therein, which can be drawn from the product along with air sucked through the open core.

4. A cigar-like product according to any of the preceding claims, characterized by flavourings incorpo-

rated therein, which can be drawn from the product by chewing it.

5. A method of manufacturing a cigar-like product by winding helically overlapping tobacco wrapper leaf directly, i.e. without inserting a filler, and tightly, i.e. without fine air passages between helically overlapping wrappings, around a mandrel, each tobacco wrapper leaf being so processed that upon completion of the winding operation the tightly wrapped configuration is maintained, characterized in that the dimensions of the tobacco wrapper leaf and the pitch angle of helically wrapping are selected such that a first winding overlapped by a second winding is also overlapped by at least a third winding, and removing the mandrel upon completion of the winding operation under maintaining the tightly wrapped configuration to obtain a substantially open core throughout the length of the cigar-like product.

6. A method of manufacturing a cigar-like product by winding helically overlapping tobacco wrapper leaf directly, i.e. without inserting a filler, and tightly, i.e. without fine air passages between helically overlapping wrappings, around a mandrel, each tobacco wrapper leaf being so processed that upon completion of the winding operation the tightly wrapped configuration is maintained, characterized in that the mandrel has a substantially open cross-section and the dimensions of the tobacco wrapper leaf and the pitch angle of helically wrapping are selected such that a first winding overlapped by a second winding is also overlapped by at least a third winding, with the mandrel remaining behind in the product as a lost core.

7. A method according to claim 5, characterized in that the mandrel is a wire of varying or constant circular cross-section.

8. A method according to any one of claims 5-7, characterized in that flavourings are incorporated into the product.

9. A method according to claim 8, characterized in that the flavourings are provided in or on a tobacco wrapper leaf before it is wrapped.

10. A method according to claim 8 or 9, characterized in that flavourings are provided between the windings during wrapping of the tobacco wrapper leaf.

11. A method according to any one of claims 8-10, characterized in that flavourings are provided in the open core after a tobacco wrapper leaf has been wrapped.

12. A method according to any one of claims 8-11, characterized in that flavourings are provided on the mandrel prior to wrapping.

13. A method according to claim 12, characterized in that when a retractable mandrel is used, the flavourings and the tobacco wrapper leaf wound around the mandrel have been prepared in such a way that the flavourings remain behind in the cigar-like product.

14. A method according to claim 12, characterized in that the flavourings are provided on a lost core which remains behind in the product upon withdrawal of the mandrel therefrom.

15. A method according to any one of claims 5-14, characterized in that the length of the mandrel is selected to be a multiple of the length of the product and that after the winding operation and, depending on the type of mandrel used, withdrawing the mandrel, the intermediate product so obtained is cut into cigar-like products of the desired length.

Patentansprüche

1. Ein zigarrenähnliches Produkt hergestellt aus Tabakdeckblatt das sich spiralförmig überlappend, direkt, d.h. ohne Einfügung einer Einlage, und fest, d.h. ohne feine Luftschlitze zwischen den sich spiralförmig überlappenden Wicklungen, um einen im wesentlichen offenen Kern gewickelt ist, der sich über die Länge des zigarrenähnlichen Produkts erstreckt, dadurch gekennzeichnet, dass der offene Kern zwei offene Enden hat und dass das um den offenen Kern gewickelte Tabakdeckblatt die Aussenseite des Produktes bildet.

2. Ein zigarrenähnliches Produkt nach Anspruch 1, dadurch gekennzeichnet, dass der offene Kern im wesentlichen einen zylindrischen Durchgang ist.

3. Ein zigarrenähnliches Produkt nach Anspruch 1 oder 2, dadurch gekennzeichnet, dass Würzessenzen darin eingeschlossen sind, die mit der durch den offenen Kern eingesaugten Luft dem Produkt entzogen werden können.

4. Ein zigarrenähnliches Produkt nach einem der obigen Ansprüche, dadurch gekennzeignet, dass Würzessenzen darin eingeschlossen sind, die durch Kauen dem Produkt entzogen werden können.

5. Ein Verfahren zur Herstellung eines zigarrenähnliches Produkts durch direktes, d.h. ohne Einfügung einer Einlage, und festes, d.h. ohne feine Luftschlitze zwischen den sich spiralförmig überlappenden Wicklungen, Wickeln von sich spiralförmig überlappendes Tabakdeckblatts um einen Dorn, wobei jedes Tabakdeckblatt so bearbeitet ist, dass nach Abschluss des Wickelvorgangs die fest gewik-

kelte Konfiguration erhalten bleibt, dadurch gekennzeichnet, dass die Abmessungen das Tabakdeckblatts und der Schrägungswinkel der spiralförmigen Wicklung so gewählt sind, dass eine erste Wicklung, die von einer zweiten Wicklung überlappt wird, zumindest auch von einer dritten Wicklung überlappt wird, und der Dorn nach Abschluss des Wickelvorgangs unter Aufrechterhaltung der fest gewickelten Konfiguration entfernt wird, um einen im wesentlichen offenen Kern zu erhalten, der sich über die Länge des zigarrenähnlichen Produkts erstreckt.

6. Ein Verfahren zur Herstellung eines zigarrenähnliches Produkts durch direktes, d.h. ohne Einfügung einer Einlage, und festes, d.h. ohne feine Luftschlitze zwischen den sich spiralförmig überlappenden Wicklungen, Wickeln von sich spiralförmig überlappendes Tabakdeckblatts um einen Dorn, wobei jedes Tabakdeckblatt so bearbeitet ist, dass nach Abschluss des Wickelvorgangs die fest gewikkelte Konfiguration erhalten bleibt, dadurch gekennzeichnet, daß der Dorn einen im wesentlichen offenen Querschnitt hat und die Abmessungen des Tabakdeckblatts und der Schrägungswinkel der spiralförmigen Wicklung so gewählt sind, daß eine erste Wicklung, die von einer zweiten Wicklung überlappt wird, zumindest auch von einer dritten Wicklung überlappt wird, wobei der Dorn als Verlustkern im Produkt zurückbleibt.

7. Ein Verfahren nach Anspruch 5, dadurch gekennzeichnet, daß der Dorn ein Draht mit variierendem oder festem kreisförmigen Durchmesser ist.

8. Ein Verfahren nach den Ansprüchen 5-7, dadurch gekennzeichnet, daß Würzessenzen im Produkt enthalten sind.

9. Ein Verfahren nach Anspruch 8, dadurch gekennzeichnet, daß Würzessenzen in oder auf ein Tabakdeckblatt gegeben werden, bevor es gewickelt wird.

10. Ein Verfahren nach Anspruch 8 oder 9, dadurch gekennzeichnet, daß Würzessenzen während des Wickelns des Tabakdeckblatts zwischen die Wicklungen gegeben werden.

11. Ein Verfahren nach den Ansprüchen 8-10, dadurch gekennzeichnet, daß Würzessenzen in den offenen Kern gegeben werden, nachdem ein Tabakdeckblatt gewickelt wurde.

12. Ein Verfahren nach den Ansprüchen 8-11, dadurch gekennzeichnet, daß Würzessenzen vor dem Wikkeln auf den Dorn gegeben werden.

13. Ein Verfahren nach Anspruch 12, dadurch gekennzeichnet, daß die Würzessenzen und das um den Dorn gewickelte Deckblatt bei der Verwendung eines herausnehmbaren Dorns auf eine solche Weise bearbeitet sind, daß die Würzessenzen im zigarrenähnlichen Produkt zurückbleiben.

14. Ein Verfahren nach Anspruch 12, dadurch gekennzeichnet, daß die Würzessenzen auf einen Verlustkern gegeben werden, der im Produkt zurückbleibt, nachdem der Dorn aus dem Produkt gezogen wurde.

15. Ein Verfahren nach den Ansprüchen 5-14, dadurch gekennzeichnet, daß die Länge des Dorns ein Vielfaches der Länge des Produktes beträgt und daß nach Abschluß des Wickelvorgangs und je nach Art des verwendeten Dorns nach dem Herausziehen des Dorns das so erhaltene Zwischenprodukt in zigarrenähnliche Produkte der gewünschten Länge geschnitten wird.

Revendications

1. Un produit semblable à un cigare, fabriqué à partir de la feuille de tabac des robe enroulée en hélice avec recouvrement, directement, c.-à-d. sans insertion d'un remplissage, et de manière serrée, c.-à-d. sans laisser de fins passages d'air entre les enroulements se recouvrant en hélice, autour d'un noyau pratiquement ouvert s'étendant sur la longueur du produit semblable à un cigare, caractérisé en ce que le noyau ouvert possède deux extrémités et en ce que la feuille de tabac de robe enroulée autour du noyau ouvert forme la partie extérieure du produit.

2. Un produit semblable à un cigare suivant la revendication 1, caractérisé en ce que le noyau ouvert est un passage pratiquement cylindrique.

3. Un produit semblable à un cigare suivant la revendication 1 ou 2, caractérisé par des agents aromatisants qui y sont incorporés, lesquels peuvent être tirés du produit avec l'air aspiré à travers le noyau ouvert.

4. Un produit semblable à un cigare suivant l'une quelconque des revendications précédentes, caractérisé par des agents aromatisants qui y sont incorporés, lesquels peuvent être tirés du produit en le mastiquant.

5. Un procédé de fabrication d'un produit semblable à un cigare par enroulement hélicoïdal de la feuille de tabac de robe, directement, c.-à-d. sans insertion d'un remplissage, et de manière serrée, c.-à-d. sans laisser de fins passages d'air entre les enroulements se recouvrant en hélice, autour d'un mandrin, chaque feuille de tabac de robe étant traitée de telle manière qu'à la fin de l'opération d'enroule-

ment la configuration étroitement serrée est conservée, caractérisé en ce que les dimensions de la feuille de tabac de robe et l'angle de pas de l'enroulement hélicoïdal sont sélectionnés de telle façon qu'un premier enroulement recouvert par un deuxième enroulement est également recouvert par au moins un troisième enroulement, et en ce qu'on enlève le mandrin à la fin de l'opération d'enroulement, tout en maintenant la configuration étroitement serrée, afin d'obtenir un noyau pratiquement ouvert sur toute la longueur du produit semblable à un cigare.

6. Un procédé de fabrication d'un produit semblable à un cigare par enroulement hélicoïdal de la feuille de tabac de robe, directement, c.-à-d. sans insertion d'un remplissage, et de manière serrée, c.-à-d. sans laisser de fins passages d'air entre les enroulements se recouvrant en hélice, autour d'un mandrin, chaque feuille de tabac de robe étant traitée de telle manière qu'à la fin de l'opération d'enroulement la configuration étroitement serrée est conservée, caractérisé en ce que le mandrin possède une section pratiquement ouverte et en ce que les dimensions de la feuille de tabac de robe et l'angle de pas de l'enroulement hélicoïdal sont sélectionnés de telle façon qu'un premier enroulement recouvert par un deuxième enroulement est également recouvert par au moins un troisième enroulement le mandrin restant dans le produit comme noyau perdu.

7. Un procédé suivant la revendication 5, caractérisé en ce que le mandrin est un fil de section circulaire variable ou constante.

8. Un procédé suivant l'une quelconque des revendications 5-7, caractérisé en ce qu'on incorpore des agents aromatisants dans le produit.

9. Un procédé suivant la revendication 8, caractérisé en ce que on ajoute des agents aromatisants dans ou sur une feuille de tabac de robe avant de l'enrouler.

10. Un procédé suivant la revendication 8 ou 9, caractérisé en ce qu'on ajoute des agents aromatisants entre les enroulements pendant l'enroulement de la feuille de tabac de robe.

11. Un procédé suivant l'une quelconque des revendications 8-10, caractérisé en ce qu'on ajoute des agents aromatisants dans le noyau ouvert après avoir enroulé une feuille de tabac de robe.

12. Un procédé suivant l'une quelconque des revendications 8-11, caractérisé en ce qu'on ajoute des agents aromatisants sur le mandrin avant de procéder à l'enroulement.

13. Un procédé suivant la revendication 12, caractérisé en ce que, lorsqu'on emploie un mandrin rétractable, les agents aromatisants et la feuille de tabac de robe enroulée autour du mandrin ont été préparés de telle façon que les agents aromatisants restent dans le produit semblable à un cigare.

14. Un procédé suivant la revendication 12, caractérisé en ce qu'on ajoute des agents aromatisants sur un noyau perdu, qui reste dans le produit lorsqu'on en retire le mandrin.

15. Un procédé suivant l'une quelconque des revendications 5-14, caractérise en ce qu'on sélectionne la longueur du mandrin pour qu'elle soit un multiple de la longueur du produit, et en ce qu'après l'opération d'enroulement et en fonction du type de mandrin utilisé, après enlèvement du mandrin, le produit intermédiaire ainsi obtenu est coupé en produits semblables à des cigares de la longueur désirée.