# (12) PATENT ABRIDGMENT (11) Document No. AU-B-17779/38 (19) AUSTRALIAN PATENT OFFICE (10) Acceptance No. 605310

(54) Title
TOBACCO PRODUCT FOR THE PERSONAL PREPARATION OF A CIGARETTE, IN
PARTICULAR FILTER CIGARETTE

International Patent Classification(s)

(51)<sup>4</sup> A24C 005/40 A24D 001/00

(21) Application No.: 17779/88 (22) Application Date: 17.06.88

(43) Publication Date: 15.03.90

(44) Publication Date of Accepted Application: 10.01.91

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(56) Prior Art Documents
EP 275414
AU 32253/89 A24D 1/00
EP 155514

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(57) Claim

A tobacco product for the personal preparation of a cigarette, in particular a filter cigarette, consisting of an inherently stable tobacco portion (10) adapted to be the tobacco filling of a finished cigarette, the surface of which tobacco portion is defined by a wrapping (13), which consists of completely smokeable material, but is so permeable to air that the tobacco portion (10) can only be smoked after airtight wrapping of the surface with cigarette paper or the like, the diameter of the tobacco portion (10) being smaller - preferably only slightly - than the inner diameter of the wrapping of cigarette paper or the like, in particular of a pre-formed cigarette paper sleeve (11), characterised in that when in use, the diameter of the robacco portion (10) increases automatically with radial expansion and with the

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portion bearing in a tight manner against the wrapping of cigarette paper or the like at least in the region of the glowing area (17) and at the time of smoking of the cigarette. progressively with the latter.

16. Method for the personal preparation of cigarettes, in particular filter cigarettes by the consumer using a tobacco portion (10) adapted to the tobacco filling of a finished cigarette, according to one or more of Claims 1 to 13, characterised in that the tobacco portion (10) is introduced directly into a pre-formed cigarette paper sleeve (11).

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Patents Act 1952

## COMPLETE SPECIFICATION (Original)

FOR OFFICE USE

Application Number: Lodged: Class

Int. Class

Complete Specification - Lodged:

Accepted:

Published:

Priority:

Related Art:

TO TE COMPLETED BY APPLICANT

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Complete Specification for the invention entitled:

"TOBACCO PRODUCT FOR THE PERSONAL PREPARATION OF A CIGARETTE, IN PARTICULAR FILTER CIGARETTE".

The following statement is a full description of this invention, including the best method of performing it known to me:-

#### **ABSTRACT**

A tobacco product for the personal preparation of a cigarette, in particular a filter cigarette, consisting of an inherently stable tobacco portion (10) adapted to the tobacco filling of a finished cigarette, the surface of which tobacco portion is defined by a wrapping (13), which consists of completely smokeable material, but is so permeable to air that the tobacco portion can only be smoked after tight wrapping of the surface with cigarette paper or the like, the diameter of the tobacco portion (10) being smaller - preferably only slightly - than the inner diameter of the wrapping of cigarette paper or the like, in particular of a prefabricated cigarette paper sleeve (11). For the easier insertion of the tobacco portion (10) within the wrapping of cigarette paper and in order to ensure that the tobacco portion (10) bears tightly within the latter, the wrapping is constructed so that when used, the diameter of the tobacco portion (10) increases automatically, with radial expansion and thus bearing tightly against the cigarette paper or the like and at least in the region of the glowing area (17) and when the cigarette is being smoked, progressively with the latter.

(Figure 3).

Tobacco product for the personal preparation of a cigarette, in particular a filter cigarette

### Description

The invention relates to a tobacco product for the personal preparation of a cigarette, in particular a filter cigarette according to the preamble of Patent Claim 1 or Patent Claim 10 and to a method for the personal preparation of a cigarette, in particular a filter cigarette, using a tobacco product of this type.

The production of cigarettes by the consumer has been known in many forms for a long time. This is true above all for so-called "roll-your-own" cigarettes using small pieces of cigarette paper provided with an adhesive edge. Rolling one's own cigarettes requires a certain manual dexterity and a certain consumption of time. Even with persons practised in rolling their own cigarettes, the cigarettes vary considerably as regards size (diameter).

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i. Š firmness (roundness) and degree of filling over the length of the cigarette and form solely a primitive substitute for industrially produced cigarettes. The inevitable crumbling of tobacco is also a drawback, the tobacco yield suffering thereby. These same problems occur - even if to a lesser extent - when using self-rolling appliances.

The same is true for the other basic type of individual production of cigarettes, namely the individual filling of cigarettes. A series of more or less convenient appliances exists for filling empty cigarette sleeves (normally with a filter member) with tobacco, an elongated pressing chamber being common to all the conventional appliances, which chamber is defined on one side by an approximately hemispherical, stationary wall portion and on the other side by an inversely hemispherical surface of a movable pressing beam, by means of which the pressing chamber can be closed after filling with tobacco, thus producing a rod-like tobacco supply. 12 ovided at one end face of the pressing chamber is a mounting socket for applying and mounting an empty cigarette sleeve. At the opposite end, the pressing chamber is defined by a piston-like tobacco ejection slide, by means of which the supply of tobacco can be transferred from the pressing chamber into the cigarette sleeve. These known filling appliances have proved more or less satisfactory in practice. They nevertheless have the drawback that the prime costs for the initial

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equipment are relatively high on account of the partially quite complicated constructions for operating the ejection slide, so that in this respect a certain inhibiting threshold must be overcome by the consumer. Furthermore, when filling the pressing chamber, a certain contamination of the user's hands and of the surrounding area with tobacco residues or crumbs cannot be avoided, which is partly felt to be troublesome and frequently deters the user from using the same. Finally, a degree of filling of the pressing chamber and thus of the cigarette sleeve which is always constant, is not possible with manual filling. Cigarettes filled in this way are characterised by variable smoking performance, namely a varying suction, taste and different length of smoking duration. In this respect, the personally filled cigarettes behave in the same way as the personally rolled cigarette. Also, the content of harmful substances in the cigarette personally filled or personally rolled in a conventional manner varies greatly and uncontrollably according to the various degrees of filling of the cigarette sleeve.

To obviate the afore-mentioned drawbacks, EP-A-123 150 proposes a tobacco product for the personal preparation of cigarettes by the consumer, which is characterised by a pre-fabricated product, which is not smokeable as such, in the form of a tobacco cartridge prefabricated in a factory, consisting of a rod sheath open at the end face and adapted by its diameter to the

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ig g cigarette paper sleeve of the finished cigarette and of a rod-like tobacco filling respectively corresponding to a cigarette portion, which can be transferred by an associated piston adapted to the inner diameter of the rod sheath, from the rod sheath into an empty cigarette paper sleeve. This tobacco product is suitable both for use in conjunction with conventional personal filling cigarette sleeves as well as in conjunction with conventional personal rolling cigarette paper pieces. According to the basic idea of this proposal, the consumer has an exactly measured quantity of tobacco in the form of a cigarette tobacco cartridge, corresponding to the filling quantity of a conventional, industrial consumer cigarette, the tobacco filling of which can be transferred in a simple manner into a pre-formed cigarette sleeve of commercially available type or into a cigarette sleeve stuck together from a small piece of individual rolling cigarette paper.

Although the last-mentioned proposal is a quite considerable improvement with respect to the afore-mentioned prior art, it should not be overlooked that the tobacco cartridge comprises a wrapping, namely a rod sheath, of non-smokeable material. As regards the end product, namely the "cigarette", the rod sheath represents a superfluous aid which can only be used once.

Furthermore, in the last-mentioned proposal, further aids are required for transferring the pre-portioned tobacco supply from the rod sheath into the cigarette paper

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sleeve, namely a loose tobacco transfer rod which can be operated hands off. The operation of the latter without further aids for introducing the filled tobacco cartridge into the empty cigarette paper sleeve and for fixing the rod sheath of the tobacco cartridge at the time of transfer of the tobacco supply, must create the greatest difficulties even for persons accustomed to preparing their own cigarettes. Various means or appliances for transferring the tobacco from the rod sheath into a cigarette paper sleeve are proposed in DE-B-33 43 402 and EP-A-84 111 150.3, in order to obviate these operating difficulties. However, lastly, even with this system for the personal preparation of the cigarette, one is dependant on additional aids.

EP-A-155 514, which is attributed to the Applicant, proposes for the first time a tobacco product which allows personal preparation of cigarettes without aids, such as a tobacco transfer rod or the like and with which there is also no longer a rod sheath to be thrown away. This tobacco product consists of an inherently stable tobacco portion adapted to the tobacco filling of a finished cigarette and the surface of which is formed from a wrapping of completely smokeable material, the surface being so permeable to air that the tobacco portion as such cannot be smoked and is only smokeable after tight wrapping of its surface with cigarette paper or the like. A tobacco product constructed in a similar manner is

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proposed by EP-A-178 605, in which case according to a preferred embodiment, the diameter of the tobacco portion is slightly smaller than the inner diameter of the cigarette paper sleeve of the finished cigarette, in order to facilitate the introduction of the tobacco portion into the pre-formed cigarette paper sleeve. However, in order that the tobacco portion bears in a tight manner against the cigarette paper, for smoking, the diameter of the tobacco portion must be increased by the user by subsequent mechanical manipulation of the tobacco portion. It is proposed in a concrete manner to manually break open the wrapping of the tobacco portion after insertion in the cigarette paper sleeve, in which case for this purpose the wrapping of the tobacco portion or the rod sheath of the same should preferably be provided with a perforation, which extends over the axial length of the tobacco portion along a helix and which - in conjunction with the thinness of the rod sheath material - facilitates the desired variability of diameter due to corresponding connection of the tobacco portion in opposition to the direction of rotation of the perforation helix. This type of rod sheath perforation should also facilitate a reduction of the diameter of the tobacco portion, in that one twists the latter in the direction of rotation of the perforation helix. However, this type of variability of diameter requires corresponding preceding instruction of the user and a not inconsiderable skill of the latter; since, for the afore-described twisting of the tobacco

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portion, it is necessary that the latter is located with one end still outside the cigarette paper sleeve, so that it can be gripped between thumb and forefinger and twisted with respect to the other end already located in the cigarette paper sleeve in which case naturally the end of the tobacco portion already located in the cigarette paper sleeve must likewise be held between the thumb and forefinger of the user's other hand and indeed with simultaneous gripping or clamping of the cigarette paper sleeve. In this case the production of visible pressure points on the cigarette paper sleeve cannot be avoided. In the case of unskilled operation, the danger exists that the cigarette paper sleeve may break open and thus the cigarette is completely unsmokeable. It is also conceivable that the end of the tobacco portion still projecting from the cigarette paper sleeve is broken open under radial expansion so that it can no longer be completely inserted in the cigarette paper sleeve without destroying the same at the particularly fragile insertion The reduction of diameter also proposed in EP-A-178 605, with twisting of the tobacco portion, seems doubtful as regards its feasibility, since this necessitates the maintenance of the desired deformation of the tobacco portion for the purpose of insertion in a pre-formed cigarette paper sleeve. This requirement thus contradicts the subsequently desired radial expansion of the tobacco portion by inverse manipulation of the latter by the user. In all, the variability of diameter of the tobacco portion

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by mechanical manipulation of the latter by the user proposed in EP-A-178 605 proves extremely difficult and not easy to carry out; in any case, it requires considerable dexterity on the part of the user.

It is the object of the invention to provide a tobacco product of the type under consideration, which can be placed very easily within the wrapping of cigarette paper or similar material which can be smoked or on which it is possible to draw, on account of a smaller diameter of the tobacco portion in comparison with the cigarette paper wrapper, the tight bearing of the tobacco against the wrapper of cigarette paper or the like, which is necessary for smoking the end product, namely a "cigarette" being achieved without subsequent manipulation of the tobacco portion and/or of the wrapping of cigarette paper or the like by the user.

This object is achieved in a surprisingly simple manner by the characterising features of Patent Claim 1 or Patent Claim 10 or even by the measures according to Patent Claim 12.

The construction of the tobacco product according to the invention is characterised by the fact that nothing is required of the user anymore. No separate action by the user is required for the individual preparation of a cigarette with the exception of placing the tobacco

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product within a wrapping of cigarette paper or similar material. Ensuring that the tobacco bears in a tight manner against the wrapping of cigarette paper or the like takes place automatically according to the invention. A subsequent mechanical action on the tobacco product by the user, as proposed in EP-A-178 605, is no longer necessary.

Advantageous details or embodiments of the basic idea according to the invention are described in Claims 2 to 9 and 11 to 15. Claim 12 relates to the method for producing a cigarette using tobacco products constructed according to the invention.

Embodiments of tobacco products constructed according to the invention are described in detail hereafter with reference to the accompanying drawings, in which:

- Fig. 1 shows in exploded, perspective view, a system for the personal preparation of a cigarette according to a preferred embodiment of the invention for use in conjunction with prefabricated cigarette paper sleeves of the conventional type used by persons filling their own cigarettes:
- Fig. 2 is a cross-section through a tobacco portion according to Figure 1, to an enlarged scale;
- Fig. 3 is a diagrammatic longitudinal section through a

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cigarette, which is produced using a tobacco product constructed according to the invention and illustrating the automatic adaptation of the diameter of the tobacco portion inserted in the cigarette paper sleeve to the internal diameter of the cigarette paper sleeve in the region of the glowing area;

- Fig. 4 shows in exploded perspective view a system for the personal preparation of a cigarette according to another embodiment of the invention, for use in conjunction with prefabricated cigarette paper sleeves of the conventional type used by persons filling their own cigarettes;
- Fig. 5 is a cross-section through a tobacco portion according to Figure 4, to an enlarged scale;
- Fig. 6 is a cross-section through a further embodiment of a tobacco portion, to an enlarged scale;
- Fig. 7 is a cross-section through a further embodiment of a tobacco portion prepared according to the invention, to an enlarged scale;
- Fig. 8 shows the tobacco portion according to Figure 7 in perspective view and showing the removal of an outer packaging, which keeps the tobacco portion

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compressed in the radial direction.

Figure 1 shows an industrially prefaticated, inherently stable tobacco portion 10 in conjunction with a likewise industrially prefabricated cigarette paper sleeve 11 with a filter 12 of the conventional type used by persons filling their own cigarettes. The essential component of the system illustrated is the inherently stable tobacco portion, which cannot be smoked outside the cigarette paper sleeve 11, but otherwise consists completely of smokeable material. In the embodiment according to Figures 1 and 2 illustrated by way of example, the tobacco portion 10 consists of a rod sheath 13 of thin tobacco film material or cigarette paper dyed the colour of tobacco, which is provided with perforations 14. According to Figure 1, the perforations extend over the entire length of the tobacco portion 10. The perforations 14 are preferably distributed approximately uniformly over the length and circumference of the tobacco portion 10. Instead of perforations, a porous wrapping material may also be used as the rod sheath 13. The rod sheath 13 contains a rod-like tobacco filling 15 introduced at the manufacturing point. The tobacco filling in the rod sheath 13 is packed approximately as densely, preferably slightly more densely in the radial direction, as in an industrially produced cigarette. The tobacco portion 10 has a length which corresponds approximately to the length of the tobacco receiving space

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16 of a commercially available cigarette paper sleeve 11. The outer diameter of the tobacco portion is slightly smaller than the inner diameter of the cigarette paper sleeve 11, so that it can be guided or introduced without problems into the cigarette paper sleeve 11. In this case, the diameter of the tobacco portion 10 is such that the tobacco portion 10 can also be introduced with clearance, i.e. without problems, into a cigarette paper sleeve produced with an undersized diameter. As regards their diameter, cigarette paper sleeves which are presently available have tolerances within the order of magnitude of 1/10 - 2/10 mm; accordingly the diameter of the tobacco portion 10 is designed so that it can be introduced in a problem-free manner without aids into a cigarette paper sleeve, which has the maximum minus tolerance as regards diameter. Irrespective of this, the tobacco filling 15 of each tobacco portion 10 corresponds as regards quantity to the tight packing of the cigarette paper sleeve 11 desired for the finished cigarettes and indeed - as illustrated - according to a cigarette normally produced in a factory. The cross-section of the tobacco portion 10 is preferably constructed to be approximately circular over the entire length so that it matches the free cross-section of the cigarette paper sleeve 11.

In order that it is ensured that the tobacco portion 10 or tobacco filling 15 bears in a tight manner or fully

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against the inner side of the cigarette paper sleeve 11, it is provided in the afore-described tobacco portion that when used, its diameter increases automatically with radial expansion and accordingly bears tightly against the cigarette paper and indeed at least in the region of the glowing area 17 and progressively with the latter as the cigarette produced is smoked. There are several possibilities for this:

One possibility consists in that when constructing

stuck together along a connecting seam 18, sticking of the

seam 19 takes place by means of a thermo-plastic adhesive

which is harmless as regards food technology, which opens

the wrapping of the tobacco filling 15 as a rod sheath

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at least in the region of the relatively hot glowing area 17 and at the time of smoking of cigarettes, progressively with the latter with opening of the connecting seam 18, so that the tobacco portion 10 or its tobacco filling 15 can expand radially outwards, thus bearing in a tight manner against the cigarette paper. The cigarette is consequently able to be smoked when used, that is to say at the time of lighting or with the first puff, without the user having to act in any way (mechanically) on the cigarette portion 10. In Figure 3, the opening of the connecting seam 18 in the region of the glowing area 17 is

illustrated diagrammatically. Naturally it is also

puff, the longitudinal seam 18 opens over its full

conceivable that when used, for example with the first

length. This depends not least on the consistency of the adhesive used.

The afore-described embodiment is most simple as regards production technology. The tobacco portions 10 may be manufactured on a conventional cigarette production machine. It is solely necessary to use the afore-said adhesive, in order to achieve the desired effect of radial expansion when the cigarette is used.

Opening of the adhesive seam 19 may also occur due to the moisture liberated at the time of smoking, which moisture is inherent in the tobacco filling 15.

Thus, on account of the action of heat or moisture, the radial "pre-tension" of the tobacco portion 10 should be eliminated, so that the tobacco portion 10 or its tobacco filling 15 bears in a tight manner against the inner surface of the wrapping of cigarette paper.

Another possibility of achieving the desired increase in diameter of the tobacco portion when in use, consists in the provision of a pre-determined breaking point, preferably a pre-determined breaking line, which extends over the entire length of the tobacco portion 10 and which breaks open due to the moisture liberated when the finished cigarette is used or due to the heat produced during the use of the finished cigarette. The

pre-determined breaking line is preferably characterised by a weakening of the material of the rod sheath 13. It may also be formed by a particularly intensive perforation, that is to say the close arrangement of perforation openings along a pre-determined line.

When using a tobacco portion, which is held together by a smokeable fixative, with the formation of an inherently stable tobacco rod, in order to achieve the automatic increase in diameter at the time of use, a fixative is preferably chosen which brings about a radial expansion of the tobacco rod under the action of heat and/or moisture which is released, so that the tobacco bears in a tight manner against the cigarette paper. In this case also the expansion of the tobacco rod may take place in the region of the glowing area and at the time of smoking of the cigarette, progressively with the latter. The tobacco rod is preferably compressed radially, in which case it is held in this compressed state by the fixative. Under the action of heat and/or moisture which is released at the time of lighting the cigarette or of the first puff, the fixative should no longer be capable of holding the tobacco rod together in the radial direction, so that the radial compression or pre-tension imparted is eliminated.

According to a further embodiment, the surface of the tobacco portion 10 or rod sheath 13 and/or the inner

surface of the wrapping 11 of cigarette paper is constructed in the form of hide, whereby in the embodiment illustrated in Figures 4 and 5, the hide-like structures 20 of the tobacco portion 10 and 21 of the cigarette paper sleeve 11 are directed so that on the one hand they do not impede the insertion of the tobacco portion 10 into the prefabricated cigarette paper sleeve 11, on the other hand the tobacco portion 10 is held securely in the tobacco-receiving area 16 of the cigarette paper sleeve 10. The hide-like structure 21 on the inner surface of the cigarette paper sleeve 11 is thus directed towards the filter member 12, whereas the direction of the hide-like structure 20 on the surface of the tobacco portion 10 is exactly the opposite when inserting the latter into the tobacco-receiving area 16 of the cigarette paper sleeve 11 (see arrow P). The hide-like structure 20 and/or 21 causes adequate filling-out of possible gaps between the tobacco portion 10 on the one hand and cigarette paper sleeve 11 on the other hand so that the personally prepared cigarette can be smoked without problems and without irregular burning of the cigarette paper sleeve. Suction takes place over the entire cross-section of the cigarette paper sleeve 11 in an approximately uniform manner. Simultaneously, secure holding of the tobacco portion 10 within the cigarette paper sleeve 11 is also ensured if the diameter of the cigarette paper sleeve has a maximum plus-tolerance.

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In order to save the user from paying attention to the fact that the hide-like structure 20 on the surface of the tobacco portion 10, at the time of insertion into the tobacco-receiving area 16 of the cigarette paper sleeve 11, is directed as described above, the direction of the hide-like structure 20 or of the surface fibres or hairs is approximately at right angles to the surface. Then the tobacco portion 10 can always be introduced without problems into the tobacco-receiving area 16 of the cigarette paper sleeve 11 whilst filling out possible gaps, in particular annular gaps, between the tobacco portion 10 on the one hand and the cigarette paper sleeve 11 on the other hand. At the same time, adequately secure retention of the tobacco portion 10 in the tobacco-receiving area 16 of the cigarette paper sleeve 11 is ensured and indeed even if no hide-like structure 21 is provided on the inner surface of the cigarette paper sleeve 11. The hair-like fibres forming the hide-like structure 20 or 21 have a length of approximately 0.1 to approximately 0.3 mm. Thus the afore-mentioned plus/ minus tolerances in the diameter of conventional cigarette paper sleeves 11 can be compensated for without problems. The construction of the tobacco portion 10 and/or cigarette paper sleeve 11 described last of all may also be combined with afore-described measures of increasing the diameter of the tobacco portion, which will be described in more detail hereafter. Furthermore, it may also suffice to provide solely the inner surface of the

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cigarette paper sleeve ll with a hide-like structure 21 of the afore-described type. Due to the hide-like structures 20 or 21, the corresponding surfaces give the impression of velvet. The hide-like structure 20 or 21 may also be applied subsequently to the corresponding surface, in particular sprayed on. Thus, due to the hide-like structures 20 or 21, a type of complete filling-out of the tobacco-receiving area 16 of a cigarette paper sleeve 11 is achieved and indeed even if the diameter of the tobacco portion 10 is appreciably smaller than the inner diameter of the cigarette paper sleeve 11.

In the embodiment according to Figure 6, the rod sheath 13 of the tobacco portion 10 is provided with an elastically yielding coating 22 of smokeable material, which naturally comprises the same perforations as the rod sheath 13. In the same way as the afore-described hide-like structures 20, 21, this elastically yielding coating allows complete filling-up of the tobacco-receiving area 16 of the cigarette paper sleeve 11 even with appreciable tolerances of diameter of the tobacco product 10 on the one hand and cigarette paper 11 on the other hand. In a development of this embodiment it is also conceivable to produce the rod sheath 13 completely from an elastically yielding material, in which case before use, the elastically yielding coating 22 or the rod sheath 13 made from elastically yielding material is compressed radially by an outer packaging, in

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particular a wrapping of cellophane or similar material. This radially acting compression is released after removing the outer packaging, preferably with a time-lag, so that after introduction into the tobacco-receiving area 16 of the cigarette paper sleeve 11, the tobacco portion 10 bears in a tight manner against the inner surface of the cigarette paper sleeve 11, with radial expansion of the coating 22 or of the rod sheath 13 made from elastically yielding material.

Figures 7 and 8 show the application of an outer packaging in the form of a wrapping 23 of cellophane or the like, which keeps the tobacco portion radially compressed. After removing the wrapping 23 (see arrow 24 in Figure 8), the tobacco portion 10 should expand radially, preferably with a short time lag, so that a tight abutment within the cigarette paper sleeve 11 is guaranteed and indeed even if the diameter of the cigarette paper sleeve 11 is appreciably greater than the diameter of the radially compressed tobacco portion 10.

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It is also conceivable to ensure the radial compression of the tobacco portion 10 within a box-like packaging, without each individual tobacco portion 10 being wrapped separately, as illustrated in Figures 7 and 8. Then it is solely necessary to remove the tobacco portion 10 from the box-like packaging and to insert it in the tobacco-receiving space 16 of a cigarette paper sleeve

11. With a correspondingly chosen time lag for the radial expansion, a firm or tight bearing of the tobacco portion 10 against the inner surface of the cigarette paper sleeve 11 is achieved.

For the easier removal of the wrapping 23, the latter has a projecting tab 25, as illustrated in Figure 7.

The afore-described tobacco product is also suitable for the personal preparation of a cigarette using self-rolling cigarette paper, in particular cigarette paper pieces, in that the cigarette paper or cigarette paper piece is wrapped around the tobacco portion and stuck along a longitudinal seam in manner known per se.

Instead of the afore-described surfaces of the tobacco product and cigarette paper sleeve with a hide-like structure (see Figures 4 and 5), the facing surfaces may also have a scale-like structure and/or be provided with annular, inter-engaging projections so that on the one hand the tobacco portion 10 can be inserted in an unimpeded manner into the wrapping of cigarette paper, on the other hand the tobacco portion 10 is held reliably within the wrapping of cigarette paper with simultaneous sealing of possible gaps or channels between the tobacco portion and wrapping.

All the features disclosed in the documents are

claimed as essential to the invention, in so far as they are novel individually or in combination with respect to the prior art.

Tobacco product for the personal preparation of a cigarette, in particular filter ciga. atte

THE CLAIMS defining the invention are as follows:-

1. A tobacco product for the personal preparation of a cigarette, in particular a filter cigarette, consisting of an inherently stable tobacco portion (10) adapted to be the tobacco filling of a finished cigarette, the surface of which tobacco portion is defined by a wrapping (13), which consists of completely smokeable material, but is so permeable to air that the tobacco portion (10) can only be smoked after airtight wrapping of the surface with cigarette paper or the like, the diameter of the tobacco portion (10) being smaller - preferably only slightly - than the



inner diameter of the wrapping of cigarette paper or the like, in particular of a pre-formed cigarette paper sleeve (11), characterised in that when in use, the diameter of the tobacco portion (10) increases automatically with radial expansion and with the portion bearing in a tight manner against the wrapping of cigarette paper or the like at least in the region of the glowing area (17) and at the time of smoking of the cigarette, progressively with the latter.

- 2. A tobacco product according to Claim 1, characterised in that the tobacco portion (10) comprises radially compressed tobacco so that when used, the tobacco portion (10) can be expanded radially outwards within the wrapping of cigarette paper or the like without particular action by the user.
- 3. A tobacco product according to Claim 1 or 2, characterised in that when forming the wrapping for the tobacco portion (10) as a rod sheath (13) stuck along a connecting seam (18), the adhesive seam (19) is produced by means of a thermoplastic adhesive, which at least in the region of the glowing area (17) and as the cigar atte is consumed, comes undone progressively with the latter with corresponding opening of the connecting seam (18), so that the tobacco portion (10) or its tobacco filling (15) can



expand radially outwards whilst bearing in a tight manner against the cigarette paper or the like.

- 4. A tobacco product according to one of Claims 1 to 3. characterised in that the tobacco portion (10) can be stored in a radially compressed manner within an outer packaging. so that outside the packaging preferably with a short time lag it expands automatically radially outwards with a corresponding increase in diameter.
- 5. A tobacco product, according to Claim 1, characterised in that the tobacco portion (10) is compressed radially or pre-tensioned so that under the action of heat, in particular emanating from the glowing area (17) of the finished cigarette, the radial compression or pre-tension can be eliminated.
- characterised in that the surface, in particular the rod sheath (13) of the tobacco portion (10) has at least one pre-determined breaking point (line) extending at least over part of its length, which under the action of heat, in particular emanating from the glowing area (17) of the finished cigarette and radial expansion of the tobacco portion (10) caused thereby, breaks so that it is possible for the tobacco portion (10) to bear in a tight manner against the



wrapping of cigarette paper or the like.

- 7. A tobacco product, according to Claim 1. characterised in that the surface of the tobacco portion (10) is defined by a rod sheath (13) of moisture-sensitive material so that it breaks open due to moisture (inherent in the tobacco) released when the finished cigarette is smoked.
- 8. A tobacco product according to Claim 6, characterised in that the pre-determined breaking point (line) breaks open due to moisture (inherent in the tobacco) released at the time of smoking of the finished cigarette.
- 9. A tobacco product according to one or more of Claims 1 to 8. characterised in that when the cigarette is first used, in particular at the time of lighting and/or at the time of the first puff of the finished cigarette, the radial expansion or increase in diameter of the tobacco portion (10) takes place automatically.
- 10. A tobacco product for the personal preparation of a cigarette, in particular filter cigarette, consisting of an inherently stable tobacco portion (10) adapted to be the tobacco filling of a finished cigarette, which is held together (intermally) by a smokeable fixative



and whereof the surface is so permeable to air that the tobacco portion (10) can only be smoked after tight wrapping with cigarette paper or the like, the diameter of the tobacco portion (10) being smaller - preferably only slightly - than the inner diameter of the wrapping of cigarette paper or the like, in particular of a pre-fabricated cigarette paper sleeve (11), characterised in that at the time of use, the diameter of the tobacco portion (10) increases automatically with radial expansion and the portion bearing in a tight manner against the wrapping of cigarette paper or the like at least in the region of the glowing area (17) and as the cigarette is smoked, progressively with the latter.

- 11. A tobacco product according to Claim 10, characterised in that the radial expansion of the tobacco portion (10) takes place automatically under the action of heat and/or moisture (inherent in the tobacco) liberated at the time of smoking.
- 12. A tobacco product, according to one or more of Claims 1 to 11, characterised in that the surface of the tobacco portion (10) and/or the inner face of the wrapping of cigarette paper or the like is designed, in particular structured, so that on the one hand the tobacco portion (10) can be slid unimpeded into the wrapping of cigarette paper, on



the other hand the tobacco portion (10) is held securely within the wrapping of cigarette paper with simultaneous sealing of possible gaps or channels between the tobacco portion and wrapping.

- 13. A tobacco product according to Claim 11, characterised in that the surface of the tobacco portion (10) and/or the inner face of the wrapping of cigarette paper or the like are constructed in the form of a hide, the hide-like surface structure (20, 21) preferably being directed in particular so that on the one hand it does not impede the insertion of the tobacco (10) into a pre-formed cigarette paper sleeve (11), on the other hand it holds the tobacco portion (10) securely within the cigarette paper sleeve (11) whilst filling any possible gaps between the latter and the tobacco portion.
- 14. A tobacco product, according to one or more of Claims 1 to 13, characterised in that the surface of the tobacco portion (10) is prepared with chemical additives, such as whitening agents and incendiary agents in the form of a liquor so that during smoking of the cigarette or burning of the tobacco portion (10), the latter fans out at least in the region of the glowing area (17) and indeed progressively with the latter with the tobacco portion bearing in a corresponding tight manner



against the cigarette paper.

- More of Claims 1 to 14, characterised in that the cigarette paper (11) is prepared so that during smoking of the cigarette at least in the region of the glowing area (17) and progressively with the latter it contracts radially whilst bearing in a tight manner against the surface of the tobacco portion (10).
- 16. Method for the personal preparation of cigarettes, in particular filter cigarettes by the consumer using a tobacco portion (10) adapted to the tobacco filling of a finished cigarette, according to one or more of Claims 1 to 13, characterised in that the tobacco portion (10) is introduced directly into a pre-formed cigarette paper sleeve (11).

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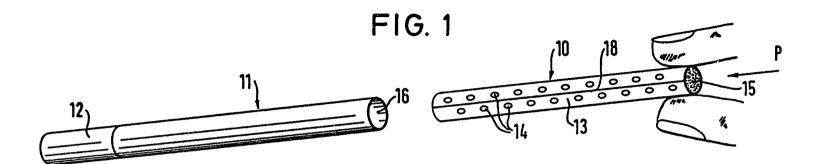
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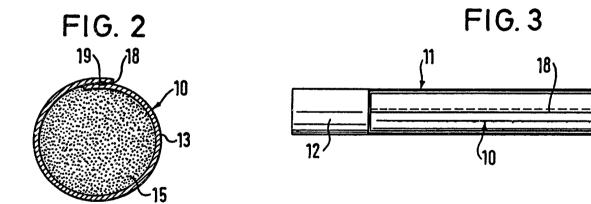
# EFKA-Werke Fritz Kiehn GmbH

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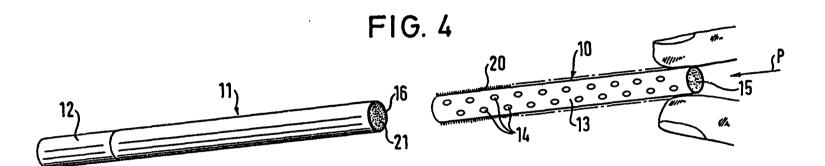


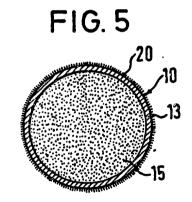


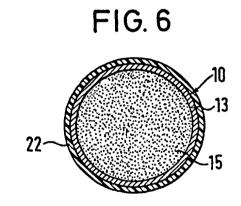


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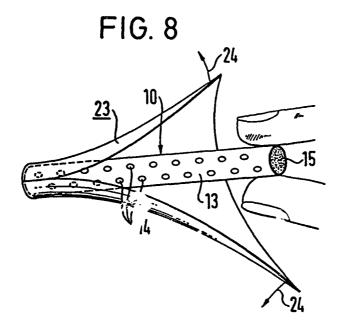


FIG. 7

