

[54] **FILTER CIGARETTE HAVING APERTURED BAND**

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[73] Assignee: **Imperial Tobacco Group Limited, Bristol, England**

[\*] Notice: The portion of the term of this patent subsequent to Nov. 12, 1985, has been disclaimed.

[22] Filed: **March 22, 1971**

[21] Appl. No.: **126,721**

**Related U.S. Application Data**

[60] Division of Ser. No. 686,482, Nov. 29, 1969, Pat. No. 3,590,825, which is a continuation-in-part of Ser. No. 435,004, Feb. 24, 1965, Pat. No. 3,410,274.

[30] **Foreign Application Priority Data**

Dec. 9, 1966 Great Britain.....553,688/66

[52] U.S. Cl. ....131/9, 131/15 B, 131/10 A

[51] Int. Cl. ....A24d 01/02, A24d 01/04

[58] Field of Search.....131/9, 10, 10.3, 10.5, 10.7, 131/10.9, 15

[56] **References Cited**

**UNITED STATES PATENTS**

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|-----------|---------|--------------|------------|
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[57] **ABSTRACT**

A cigarette is disclosed having a wrapped tobacco portion and a two section stub secured to it by a band of impermeable material. Beneath the impermeable band, a band of highly permeable material is disposed. The impermeable band is provided with at least one opening adjustably located over the butt joint between the two sections of the stub whereby the amount of air passing into the butt may be controlled.

**2 Claims, 2 Drawing Figures**

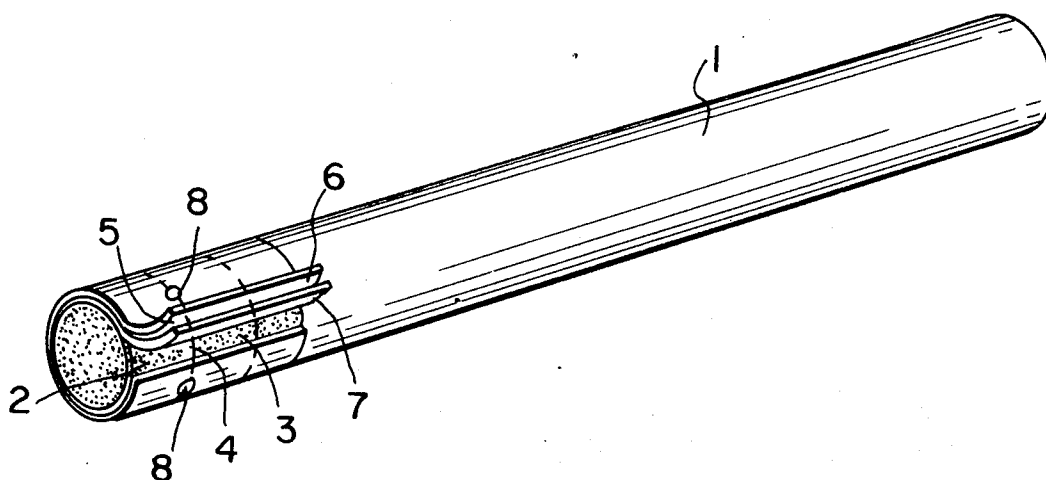


FIG. 1

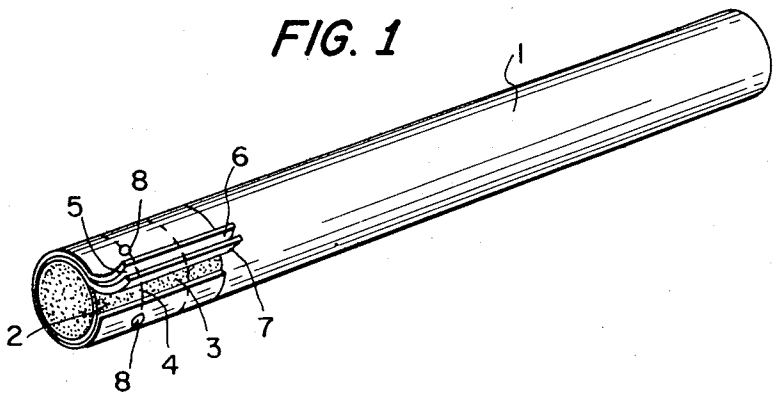
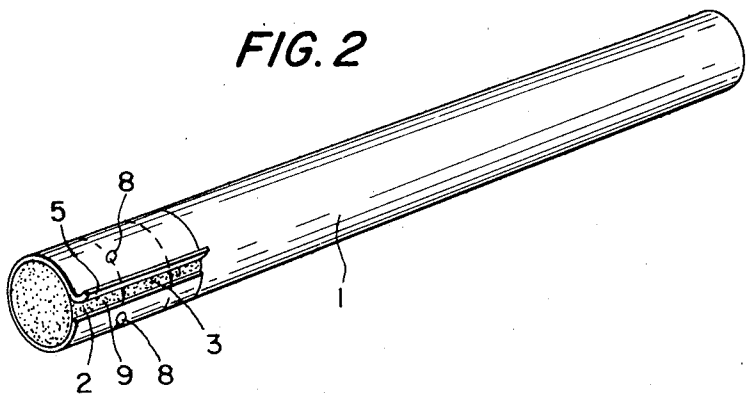


FIG. 2



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**FILTER CIGARETTE HAVING APERTURED BAND**

This is a division of my previous application Ser. No. 686,482 filed Nov. 29, 1969, now U.S. Pat. No. 3,590,825, which is in turn a continuation-in-part of my earlier application Ser. No. 435,004, filed Feb. 24, 1965, now U.S. Pat. No. 3,410,274.

This invention concerns cigarettes of the kind comprising a tobacco portion encased in paper, and a stub, joined together in abutting relation by a band that encircles at least a portion of both the tobacco portion and stub, and is adhesively secured thereto to provide a composite cigarette, and wherein the stub comprises a plurality of separate sections arranged in abutting relation, and wherein air may be drawn into the smoke stream on smoking the cigarette. The separate sections may be secured in abutting relation within a paper or like sleeve.

The invention also concerns cigars or cigarillos manufactured in a similar manner.

The abutting stub portions may be constituted by any of the well known materials, e.g. crimped paper, cellulose acetate, tobacco, a hollow mouthpiece or activated charcoal.

It is an object of the present invention to provide an improvement in or modification of a cigarette of the kind described.

The present invention consists in a cigarette wherein the encircling band is rendered more permeable at an area or areas or on a continuous area along the line corresponding to a butt joint between two abutting sections of the stub, whereby air may be drawn through said line into the smoke stream, the volume of said air being controlled by the extent of the periphery of said butt joint that is disposed within said area or areas.

The stub sections may be secured in abutting relation within a paper or like sleeve, in which case the band may be a single web perforated at said area or areas, and the paper or like sleeve may be more permeable than said band.

In an alternative the stub sections may not be held in a separate sleeve but be maintained in abutment by said band only.

The band may be reduced in thickness at the area or areas to render it more permeable.

Alternatively the band may comprise a web of substantially impermeable material laminated to a web of more permeable material, and the former may itself be rendered more permeable at said area or areas.

In the case of a laminated band the web of substantially impermeable material may be perforated at said area or areas.

It is to be understood that in the present specification the word area has been used to indicate that said area or areas are not mere pin-holes, and the expression "rendered more permeable" means that the line of abutment is not exposed.

Referring to FIG. 1, a short cigarette 1 is abutted against a stub that comprises two sections 2, 3, abutted together at 4, and the three components are held in abutting relation and joined together by an encircling band 5.

The band 5 comprises a web 6 of substantially impermeable material, for example the well known imitation cork tipping material, laminated to a web 7 of more permeable material. Before laminating the webs 6, 7 together, the web 6 is provided with perforated

areas as at 8, on a line corresponding to the butt joint 4, so that when the band has been secured to the assembly of stub sections and cigarette, air may be drawn through said line into the smoke stream, the volume of the air being controlled by the extent of the periphery of the butt joint 4 disposed within the areas 8. It should be understood that adhesive for securing the band to the three components is not applied to the web 7 where it is located behind the areas 8. For illustrative purposes the two webs of the band 5 are shown separated at one end but they are in fact laminated together before applying them to an assembly.

FIG. 2 illustrates a band 5 comprising a single web perforated at 8. This is used to join a two-section stub 2, 3 to a short cigarette 1. In this case however the two stub sections are first joined in abutting relation within a sleeve 9 of material that is more permeable than the band 5.

Modifications of the invention not illustrated will be apparent. For example instead of using a laminated band in FIG. 1, a single band may be used said band being thinned at 8 to render it more permeable. A laminated band similar to that illustrated in FIG. 1 may be used with the stubs sections as illustrated in FIG. 2. In that case the webs 7 and 9 combine to provide greater permeability at the areas.

It is to be understood that the present invention relates to stubs comprising any number of sections and that the permeable area or areas may be located at a line of abutment between any two abutting stub portions, furthermore the area or areas may be arranged at more than one such line.

Except that U.S. Pat. No. 1,039,554 describes a cigarette in which air is admitted to the smoke stream at the butt joint between the tobacco portion of a cigarette and the stub, the other features of said patent apply to the present invention and reference should be made thereto to assist the interpretation of the claims of the present invention.

I claim,

1. A cigarette comprising a wrapped charge of tobacco and a filter stub, the stub having first and second ends open to permit the passage of air and smoke and having an outer surface between the said ends, said stub comprising at least two sections between first and second ends, said sections abutting at a butt joint, an end of the said wrapped charge of tobacco abutting an end of the said stub so that smoke may be drawn through the tobacco and then through the stub, a band secured to both sections of the stub and extending across the said butt joint so as to completely cover the said butt joint and so as to cover a measurable portion of both sections of the said outer surface of the stub to connect together the two sections of the stub, said band also extending across the abutting ends of the stub and the wrapped charge of tobacco to join the stub and the wrapped charge of tobacco together, said band being substantially impermeable to air except that the portion of the band covering the butt joint has at least one area which is permeable to air, thereby permitting a controlled and limited passage of air through the permeable area into the butt joint, the said area being of a size which is observable with the naked eye so that slight shifting of the band in a direction parallel to the axis of the cigarette is possible while the said permeable area

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still overlies the said butt joint, and said permeable area comprising at least one opening in the substantially impermeable layer of the band and a highly permeable layer immediately beneath the substantially impermeable layer secured over both sections of the stub and underlying the said openings, whereby air may be drawn into and through the butt joint through the said openings and through the said highly permeable layer, the amount of said air being determined by the amount

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of the circumference of the butt joint which the opening and the highly permeable layer cover and the degree of permeability of the highly permeable layer cover and the degree of permeability of the highly permeable layer.

2. A cigarette according to claim 1, wherein the said substantially impermeable layer of the band extends over the entire stub.

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