ABSTRACT: A cigarette, cigarillo or cigar having a tobacco portion and a stub portion, the stub portion having two sections arranged end to end to form a butt joint, and a band of impermeable material which joins the portions together and surrounds the butt joint, wherein the butt joint is completely covered and the joining band has at least one permeable area at the butt joint for controlling the entry of air at the butt joint. The permeable area of the band is thinner than the remainder of the band. The thinned area is made by shaving off a portion of the surface of the band.
FILTER CIGARETTE HAVING APERTURED BAND

Such a cigarette is described in the specification of my U.S. Pat. No. 3,410,274, with which the present application was co-pending, and of which this application is an improvement, and is hereinafter referred to as a cigarette of the kind described.

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 of the kind described wherein the encircling band is rendered more permeable at an area or areas on or in 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 pinholes, and the expression "rendered more permeable" means that the line of abutment is not exposed.

FIG. 1 shows 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 area.

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.

1 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 said 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 such that smoke may be drawn through the tobacco of the stub and extending across the said butt joint so as to completely cover the joint and so as to cover a measurable portion of both sections of the 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 part of the band covering the said butt joint has at least one area which is permeable to air, thereby permitting a controlled and limited passage of air through the impermeable area into and through the said joint, the said area being of a size which is larger than a conventional pinhole, the amount of air which enters at the butt joint being determined by the amount of the circumference of the butt joint covered by the said permeable area and the degree of impermeability of the said permeable area, said permeable area being constituted by one or more portions which are thinner than the remainder of said substantially impermeable band and said cigarette being radially impermeable between the said butt joint and the end of the stub remote from the wrapped charge, except for the said permeable area.

2. A cigarette as claimed in claim 1 wherein said thinned portion comprises a shallow recess in the otherwise substantially impermeable band.

3. A cigarette according to claim 1, wherein said permeable area comprises a plurality of separate thinner portions spaced apart around the periphery of said butt joint.

4. A cigarette according to claim 1, wherein said permeable area consists of a single continuous thinner portion extending around the periphery of said butt joint.

5. A composite cigarette comprising a wrapped charge of tobacco and a stub portion attached together, said stub comprising at least two sections which abut at a butt joint, said sections being connected together by an encircling band which is provided with at least one area larger that a conventional pinhole and of greater porosity than the remainder of the band, 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, whereby secondary air may be drawn into and through the said butt joint of the cigarette through said area, characterized in that said area extends across the plane of abutment between said sections of.
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the stub, said area being constituted by one or more portions which are thinner than the remainder of the band and said cigarette being radially impermeable between the said plane of abutment and the end of the stub remote from the wrapped charge of tobacco except for the said area of greater porosity.

6. A method of producing a cigarette of the type having a wrapped charge of tobacco and a filter stub, said stub comprising at least two sections which abut at a butt joint and are attached together by an encircling band, comprising the steps of:

a. forming in a band of substantially impermeable material at least one thinned area highly permeable to air by shaving off a portion of the surface of the band, and

b. attaching the band to the cigarette to join together the two sections of the stub, such that the said thinned area overlies the said butt joint such that air may be drawn into and through the butt joint through the thinned area.