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ARTICLE OF MANUFACTURE

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7 Claims. (Cl. 131—36)

This invention relates to the cigarette art, and it particularly pertains to the manufacture of cigarettes comprising a regenerated cellulose wrapper.

Regenerated cellulose film has already been suggested for use in the manufacture of cigarettes but has not proven altogether satisfactory. Thus, for example, if the regenerated cellulose wrapper contains no combustion accelerator, it burns more slowly than the tobacco; it slows down the rate of burning of the tobacco, the combustion proceeding in such a way that the cigarette is easily extinguished. If, on the other hand, a combustion accelerator such as potassium nitrate is used to increase the rate of combustion of the regenerated cellulose wrapper, it imparts a disagreeable taste to the film and, during combustion, it deposits a residual material which is incombustible and which interferes with the combustion of the wrapper. In addition, the combustion products of potassium nitrate are harmful to the smoker and impart an undesirable taste to the cigarette.

One object of this invention comprises the production of cigarettes comprising a non-fibrous cellulosic wrapper having a rate of combustion comparable to that of the cigarette tobacco, and being free from salts or other materials which exert a harmful effect upon the smoker. A more specific object comprises the production of cigarettes having regenerated cellulose wrappers having incorporated therein a tasteless, odorless, non-toxic material which increases the rate of combustion of the regenerated cellulose wrapper and which itself burns completely without leaving an ash and without producing injurious or unpleasant combustion products. Other objects of the invention will appear hereinafter.

The objects of the invention are accomplished in general by incorporating in the cellulosic solution from which the wrapper is made, a material which is itself normally substantially non-volatile, but which, upon combustion, will burn completely without the formation of an undesirable ash, said material in its preferred form comprising hydrocarbons commonly known as paraffin oil and sold under the trade-names "White oil", "White Rose oil", and "Nujol". The oil may be emulsified in the cellulosic solution from which the wrapper is made, for example, by the use of materials such as Monopole oil, etc., which exert an emulsifying action, the cellulosic solution then being cast according to conventional methods to form a film which is manufactured into a cigarette wrapper.

The hydrocarbon oils, specifically those which have been previously mentioned, are odorless, tasteless, non-toxic, normally non-volatile, increase the rate of combustion of the cellulosic film so that it will burn at a rate substantially equal to that of the tobacco, and, after combustion, leave no ash and yield products of combustion which are not unpleasant and which do not have an injurious physiological effect on the smoker.

It has previously been thought that in order to use regenerated cellulose wrappers in the manufacture of cigarettes, very thin wrappers, for example, having a thickness not substantially in excess of 0.01 mm. were necessary. As compared with the prior art, it is of advantage in the practice of this invention, to use films of 0.02 mm. or more in thickness, in place of 0.01 mm. as recommended by the prior art, in order to obtain very strong, rigid cigarette tubes having a desirable appearance.

Cigarettes made with regenerated cellulose wrappers do not adhere to the lips, nor do they come apart on contact with the mouth in the manner characteristic of cigarettes made with rice paper. In addition, due to the method of manufacture, it is possible to incorporate various aromatic gums, resins or perfumes into the cellulosic solution prior to the casting of the sheet, in order to impart to the tobacco a slightly aromatic odor frequently appreciated by smokers.

Small cylinders of tobacco for pipe smokers, characterized in that compressed tobacco is wrapped up with paper, are available on the market. These cylinders, the use of which is very practicable and very clean, nevertheless, have the inconvenience of having a paper wrapper, which, while being consumed, gives a disagreeable odor of burned paper and leaves a considerable carbon residue. With regenerated cellulose film and other similar non-fibrous, cellulosic wrappers, the deposition of substantial amounts of unburned carbon can be prevented by admixture with sufficient hydrocarbon oil in a very finely divided form as has previously been explained. The odorless, tasteless and transparent regenerated cellulose film is wrapped about the tobacco to form a pellet somewhat like a cigarette in size and shape, and rolled evenly like a cigar. It is thus easy for the smoker to fill his pipe with one hand, the tobacco is easily lighted and burns evenly down to the last shred, leaving no short bits of wasted tobacco in the pipe. With the special wrapper comprising the present invention, the pipe tobacco burns and lasts twice as long as

the tobacco conventionally used in pipes and burns evenly without permitting burning down one side of the pipe bowl, owing to the even draught accompanying the use of the new tobacco cartridge.

By way of example, to illustrate a practical application of the principles of the invention, viscose, such as is customarily used in the production of regenerated cellulose film, is admixed with 25 grams of paraffin oil on the basis of 100 grams of dry cellulose, preferably with the addition of an emulsifying agent such as Monopole oil, and, if desired, with the addition of a small amount of glycerin as a softener. The glycerin will ordinarily be added, however, by the use of a conventional glycerinating bath through which the film is drawn after desulfuring, bleaching and washing and before drying.

While the use of paraffin oil is preferred, it is possible to replace it or to substitute it in whole or in part by other materials having similar properties, for example, stearic acid.

The use of regenerated cellulose film as cigarette wrappers in accordance with the present invention is preferred. These films may be prepared by the viscose or by the cuprammonium cellulose process. It will be understood that other non-fibrous, cellulosic materials, for example, glycol cellulose, lowly etherified ethyl or methyl cellulose, and similar materials, especially where they are prepared by wet-casting methods, may be used in place of regenerated cellulose.

Any variation or modification which conforms to the spirit of the invention is intended to be included within the scope of the claims.

I claim:

1. A combustible tube of tobacco comprising a non-fibrous cellulosic wrapper having thoroughly incorporated therein a completely combustible, non-volatile, tasteless, odorless material having a rate of combustion more rapid than that of the cellulosic base comprising the wrapper.

2. A combustible tube of tobacco comprising a non-fibrous cellulosic wrapper having thoroughly incorporated therein a completely combustible non-volatile, tasteless, odorless, organic material having a rate of combustion more rapid than that of the cellulosic base comprising the wrapper.

3. A combustible tube of tobacco comprising a non-fibrous cellulosic wrapper having thoroughly incorporated therein a completely combustible, non-volatile, tasteless, odorless, organic, oily material having a rate of combustion more rapid than that of the cellulosic base comprising the wrapper.

4. A combustible tube of tobacco comprising a non-fibrous cellulosic wrapper having incorporated throughout its mass an odorless, tasteless, non-volatile hydrocarbon oil.

5. A combustible tube of tobacco comprising a non-fibrous cellulosic wrapper having incorporated throughout its mass a substantial quantity of paraffin oil.

6. A combustible tube of tobacco comprising a regenerated cellulosic wrapper having incorporated throughout its mass a substantial amount of paraffin oil, the wrapper having a thickness of about 0.02 mm.

7. A combustible tube of tobacco comprising a non-fibrous, cellulosic wrapper having incorporated therein a substantial amount of a paraffin oil emulsion containing an emulsifying agent.

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