

S. E. Seaman

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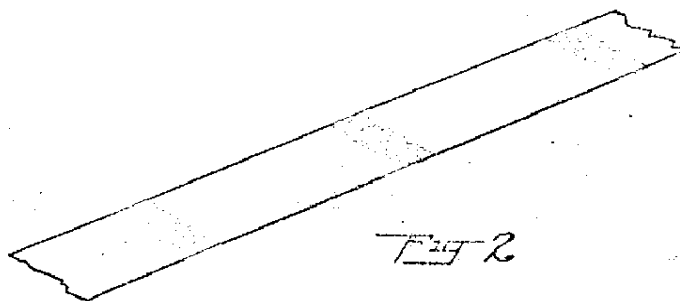
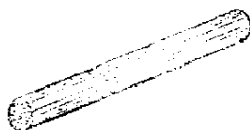
S. E. SEAMAN

1,996,002

DECREASING INFLAMMABILITY OF CIGARETTES

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Fig 1



INVENTOR

Stewart E. Seaman

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As one example of carrying my invention into effect, and given for illustrative purposes only, I may dissolve 12 ounces of cellulose acetate in 2 quarts of a mixture of 65% acetone by weight and 35% ethyl acetate by weight, to which has been added 5 ounces synthetic resin and 12 ounces calcium sulfate, the latter being stirred into the otherwise completed formula. A sufficient amount of this lacquer or mixture is placed by brushing or otherwise on a cigarette paper of the normal size used in cigarette manufacture, on said paper in a band of about one-fourth to three-fourths of an inch wide, either as a single coating or a plurality of coatings either on the side of the paper which normally will be next to the tobacco, or on the other side, or on both sides, and the paper allowed to dry by solvent evaporation either at normal or elevated temperatures.

Or, the fire-retarding composition may be placed on the paper in any approved manner while the paper is in large sheet or in roll form by any suitable mechanical device or manually.

In the illustrative example above, the cellulose ester may be entirely replaced by a resinous material, a phenol-aldehyde condensate, a casein compound or other fire-retardant. If a water-soluble composition is employed, such as an aqueous solution of inorganic salts, a saturated cellulose preferably prepared and applied to the portion of the paper desired of width required in order to induce the degree of fire-retarding effect required.

Normally it has been found that the use of a single band of fire retardant composition is sufficient, or a single application of a non-cellulosic inflammability-reducing composition, and experience has shown that, inasmuch as a cigarette is normally discarded when between three-fourths and one-fourth smoked, usually when about a half or a little less—that the fire-retarding composition should be placed at that distance from the end of the cigarette normally lighted.

It is not intended that the fire-proofing composition shall be placed on or in the cigarette paper wrapper sufficiently near the end normally placed in the mouth so as to touch the lips of the smoker, or elsewhere so as to materially interfere with the normal smoking of the cigarette. A cigarette made according to my invention will go out when held between the lips and when smoked to the point of application of the fire-retardant, unless drawn upon vigorously and continuously, and until the cigarette has been consumed beyond this point.

In the accompanying drawing, Fig. 1 represents a cigarette, the fire-retardant band being indicated at "A". In Fig. 2 is shown the paper before wrapping around tobacco, the fire-retardant portion being indicated as at A¹, A² and A³.

I am aware of U. S. Patent 931,543 for "improvements in the ends of cigars" so the same will not touch the lips of the smoker; U. S. Patent 779,337 for a "device for a cigarette or cigar"; and German Patent 375,123 to encase the entire length of a cigarette in a transparent cellulose-acetate film, the paper is of cellulose. I disclaim all features embodied in said issued patents.

What I claim is:

1. A process for reducing the inflammability of that portion of a cigarette which normally is discarded, comprising coating the paper portion of the cigarette for the width desired with a resinous composition.

2. A process for reducing the inflammability of that portion of a cigarette which normally is discarded, comprising impregnating the paper wrapper by an inflammable solution of a non-cellulosic composition containing an inflammability-reducing material therein, as herein set forth.

3. A process for reducing the inflammability of a cigarette at a pre-determined place, comprising coating the wrapper of the cigarette with a resinous composition, and allowing the liquid portion of the coating composition to evaporate, as herein set forth.

4. A process for reducing the inflammability of a cigarette when partially consumed, comprising coating the paper portion of the cigarette with a synthetic resin composition substantially odorless and tasteless containing a fire-retardant therein, as herein set forth.

5. A process for reducing the inflammability of a cigarette when one-quarter to three-quarters consumed, comprising coating the paper portion of the cigarette at one or more places with a phenol-aldehyde composition containing an inflammability-reducing material therein, and allowing the liquid portion of the coating composition to evaporate, as herein set forth.

6. A process for producing a cigarette a portion of the wrapper of which is difficultly burnable, comprising coating the paper portion of the cigarette in a plurality of applications with an inflammable solution of non-cellulosic composition substantially odorless and tasteless containing a fire-retardant therein, and allowing the liquid portion of the coating composition to evaporate, as herein set forth.

7. A process for producing a cigarette a portion of the wrapper of which is of diminished inflammability, comprising coating the paper portion of the cigarette for the width desired with an inflammable solution of non-cellulosic composition containing an inflammability-reducing material therein, as herein set forth.

8. A process for reducing fire hazard in the consumption of cigarettes, comprising coating the paper wrapper with a resinous composition, and allowing the liquid portion of the coating composition to evaporate, as herein set forth.

9. A process for reducing the inflammability of that portion of a cigarette which normally is discarded, comprising impregnating the paper wrapper with an inflammable resin composition containing a fire-retardant therein, as herein set forth.

10. A process for reducing the inflammability of a cigarette at a pre-determined place, comprising coating the wrapper of the cigarette with a phenol-aldehyde composition substantially odorless and tasteless containing an inflammability-reducing material therein, and allowing the liquid portion of the coating composition to evaporate, as herein set forth.

11. A process for reducing the inflammability of a cigarette when one-quarter to three-quarters consumed, comprising coating the paper portion of the cigarette at one or more places with a non-cellulosic composition containing an inflammable liquid with a fire-retardant therein, and allowing the liquid portion of the coating composition to evaporate, as herein set forth.

12. A process for producing a cigarette a portion of the wrapper of which is difficultly burnable, comprising coating the paper portion of the cigarette in a plurality of applications with a

tasteless, and allowing the liquid portion of the coating composition to evaporate, as herein set forth.

13. A process for producing a cigarette a portion of the wrapper of which is of diminished inflammability, comprising coating the paper portion of the cigarette for the width desired with a synthetic resin composition containing a fire-retardant therein, as herein set forth.

14. A process for reducing fire hazard in the consumption of cigarettes, comprising coating the paper wrapper with a phenolaldehyde composition containing an inflammability-reducing material therein, and allowing the liquid por-

tion of the coating composition to evaporate, as herein set forth.

15. A process for reducing fire hazard in the consumption of cigarettes comprising coating the paper portion of a cigarette for a portion of its length with an inflammability-reducing composition in an inflammable liquid comprising a phenol-aldehyde emulsion, and evaporating the volatile portion therefrom, as herein described.

16. As a new article, a cigarette the wrapper of which is coated for a portion of its length with a non-cellulosic fire-retarding composition dissolved in an inflammable solvent.

STEWART E. STANLEY.

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