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METHOD OF AND COMPOSITION FOR TREATING CIGARETTES, CIGARETTE PAPER, AND TOBACCO

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The prevalence of smoking at the present day has created a fire hazard of increasingly dangerous proportions. Especially is this true in reference to the smoking of cigarettes, although, of course, the fire hazard from pipe and cigar smoking is a considerable one.

The habit of smokers of resting lighted cigars and cigarettes upon the edges of tables, dressers, shelves, etc., while engaged in some occupation requiring the use of their hands is well known. In addition to the relatively unimportant, though annoying, effect of causing scars or burned places upon the tables and shelves, the danger of causing serious fires is always present. Smokers commonly rest their lighted cigars or cigarettes upon any convenient ledge that happens to be handy, intending, of course, to pick them up before any great interval has elapsed. But, it is a well-known observation that most, if not all, smokers very often fail to pick up the cigar or cigarette from its temporary resting place before it has scorched a table, burned a dresser scarf or tablecloth, or caused some other, more or less, serious damage. In offices, as well as homes, smokers are continually having their attention distracted during smoking by interruptions calling them from the room, or from their desks, or by telephone calls which cause them to forget the fact that they have laid a lighted cigarette in a place where it will cause damage unless removed within a fairly short interval.

Smokes often lay cigarettes and cigars upon the edge of an ash tray, lighted end innermost and extending over the edge of such receptacle. When the cigar or cigarette burns to the edge of the receptacle, it becomes over-balanced and falls therefrom causing damage to the table or cloth therebeneath.

The greatest danger, of course, comes from the smoking of cigarettes, which, because of their composition, have a tendency to throw off sparks especially where they are being smoked in a draft such as created by travel in automobiles. The paper in which cigarettes are packed often has a tendency to flake off, the flakes constituting burning bits of paper, which, though usually extinguishing themselves almost immediately, sometimes burn long enough to cause damage to clothing, as well as the seat coverings or floor rugs of an automobile. And, on occasions, fires are started thereby.

The tendency of flakes of burning paper, or coals of burning tobacco, to drop away from cigarettes is especially true with reference to the popular brands thereof in which the tobacco is often loosely packed and the paper utilized is not of the highest grade.

The present invention relates to a method of, and composition for, treating cigars, cigarettes, cigarette paper and tobacco, during their manufacture, in such a manner as to prevent or inhibit the fire hazard above-mentioned resulting from the smoking thereof. The method of treatment of the present invention results in the production of cigars, cigarettes and tobacco in which the fire applied thereto in smoking becomes extinguished in a very short time unless the smoker fairly continuously draws air therethrough in smoking.

In the use either of tobacco, in any of its various forms, or cigarette paper treated by the method, and with the composition of this invention, the fire hazard resulting from smoking is greatly minimized, or substantially eliminated.

In carrying my invention into effect, I first provide a composition comprising very common and inexpensive ingredients with which tobacco or cigarette paper may be treated without affecting the odor, taste or freshness thereof, and without interfering, in any way, with the pleasure to be derived from smoking.

As an example of the composition I find desirable for use in treating tobacco, I may take one gallon of water and add thereto two fluid ounces of vinegar and then dissolve one ounce of borax in the water and vinegar mixture. Care should be taken that cider vinegar is used and not acid vinegar.

As an example of the composition which I have found desirable for use in treating cigarette paper, the following ingredients and proportions are used: Two ounces of borax and one-half ounce of salt are added to one gallon of water and dissolved therein.

While the two examples, above set forth, have been found to be most desirable proportions and combinations of ingredients for compositions to be used in the treatment of tobacco and cigarette paper respectively, highly desirable results have been obtained by the use of borax and water alone in various proportions. Good results have also been obtained by the use of a mixture of borax, water, salt, and vinegar in various proportions.

The above specific proportions of ingredients are given merely as examples of the compounds, or compositions, of the invention which have been found desirable for use in treating tobacco and cigarette paper in accordance with the method herein disclosed, and I do not wish to be limited, in any way, to specific combinations of the aforementioned ingredients, or to specific proportions

of said ingredients. The combination of the above ingredients may be varied in any desired manner, as may be the proportions thereof.

A composition comprising water and borax, or water, borax and vinegar, or water, borax and salt, or water, borax, vinegar and salt, made in accordance with the above-given examples of specific proportions, or in various combinations of such ingredients in various suitable proportions, may be used to treat tobacco or cigarette paper by spraying the composition or mixture thereupon, or dipping the tobacco or cigarette paper in the mixture, or by applying the composition to the tobacco or cigarette paper during the process of manufacture thereof in any suitable manner.

While the composition herein described may be incorporated with paper or tobacco, to be treated, in any convenient manner, the most satisfactory method of treating tobacco may possibly comprise blending the composition therewith during the process of flavoring the tobacco. For this purpose the composition of the invention may be mixed with the flavoring and incorporated with the tobacco in the manner now employed with reference to flavoring alone.

Borax is the ingredient of the composition which effects the slow burning characteristic of the treated tobacco or cigarette paper. It requires a carrier in which it may be dissolved and by which it may be applied to the cigarette paper or tobacco being treated. The carrier must be one having no harmful effects nor any disagreeable taste or odor. Water, therefore, is highly satisfactory for this purpose, since borax may be completely dissolved therein.

In treating tobacco the mixture of water and borax preferably contains vinegar which acts to open the pores of the tobacco permitting the water-carried borax to be absorbed thereby and fixed therein. In treating cigarette paper, during manufacture of the latter, the composition used for the treatment preferably contains salt which likewise effects opening of the pores of the paper and acts to fix the borax thereto.

The proportions of ingredients employed in the composition are such that tobacco or cigarette paper treated therewith will burn, practically, only under the condition of constant draft applied to lighted tobacco products so treated, as in smoking. Care must be exercised in proportioning of ingredients so that a composition is produced which will neither inhibit burning entirely nor fail to inhibit burning sufficiently.

In the manufacture of cigarettes either the cigarette paper or the tobacco, or both, may be treated with the composition of the invention, as desired, depending upon which may be found least costly so far as the manufacturing process is concerned. Most desirable, of course, would be the treatment of both cigarette paper and tobacco, in the manufacture of cigarettes. However, the treatment of one or the other gives highly satisfactory results.

Treatment of tobacco or cigarette paper with the composition, and by the method of the invention, produces tobacco and cigarette paper which will burn slowly, and, unless a fairly constant draft is applied to lighted tobacco or cigarette so treated, the fire will extinguish itself within a very short time. Thus when cigars and cigarettes, so treated, are thrown from a moving vehicle, as is common practice among smokers, they will go out almost immediately upon alighting, thus preventing the possibility of starting forest fires, or fires in dry grass or tinder, beside highway right-of-ways. Likewise, burning particles of pipe tobacco will extinguish themselves when dropped or blown from smoker's pipes by the force of wind.

The effect of the treatment of cigarette paper and the wrappers of cigars with the composition, and by the method of the invention, is to cause the paper of such cigarettes and wrappers of such cigars, to burn more slowly than the inner tobacco contents of such cigarettes or cigars. Thus, even when lighted cigars or cigarettes, whose outer wrappers have been so treated, are carelessly laid down in places where they might otherwise easily ignite or damage some article of furniture, or ignitable material, this result will not follow. Even though the tobacco inside the treated cigar or cigarette wrapper may continue to burn for a short time, the wrapper itself will cease to burn almost immediately. In fact, the wrapper will scarcely burn at all unless the cigar or cigarette is under almost continuous draft, as when being smoked. Therefore, even though the inner tobacco content of the cigar or cigarette continues to burn for a short time when thrown down or laid down, the failure of the wrapper to continue to burn will cause smothering of the fire interiorly thereof.

When the interior tobacco contents of cigars and cigarettes is treated with the composition, and by the method of the invention, as distinguished from the treatment of the wrappers thereby, the smoking of such cigars or cigarettes has the effect of impregnating the wrappers thereof with the composition with which the tobacco contents have been treated, thus causing the wrappers, as well as the tobacco, to burn slowly and become extinguished when not being smoked. This impregnation of the wrapper by the composition with which the tobacco has been treated is accomplished in the following manner. As the tobacco burns, the composition is carried by the smoke drawn through the cigarette or cigar, in smoking, and is deposited upon the inside of the wrapper, becoming infused therewith.

Treatment of cigars, cigarettes, cigarette paper and tobacco, or any or all of them, with the composition of the invention has no undesirable effect upon the taste or odor of the cigar, cigarette or tobacco so treated. Such treatment does not diminish the pleasure of smoking, in the least, and has no harmful effects of any kind. Additionally, the treatment preserves the freshness of tobacco products exposed thereto so that it is desirable not only from the standpoint of eliminating fire hazards but actually improves the smoker's products at scarcely no additional cost in their manufacture.

Having described my invention, what I claim as new and desire to secure by Letters Patent of the United States is:

1. A smoker's article comprising a tobacco filler, and a paper wrapper treated in its entirety with a mixture consisting solely of an aqueous solution of borax and salt, the amount of salt being sufficient to cause opening of the pores of said paper to permit impregnation of said wrapper with said borax, and the amount of borax being sufficient to cause the wrapper to burn more slowly than the filler and to cause the wrapper to cease burning substantially concurrently with the cessation of a forced draft through the article, whereby the burning portion of said filler will be positioned entirely with-

in the unburned portion of the wrapper when said article is lighted in the process of smoking the same.

2. The method of treating a smoker's article comprising a tobacco filler and a paper wrapper which comprises treating said wrapper in its entirety with an aqueous mixture composed of a fire resistant substance and a pore opening substance, such as salt to facilitate impregnation of said wrapper by said fire resistant, the amount of the fire resistant substance in said mixture being insufficient to entirely prevent burning of the wrapper or filler to which it is applied but sufficient to cause said wrapper or filler to cease burning substantially concurrently with the cessation of a forced draft thereupon.

3. The method of treating a smoker's article comprising a tobacco filler and a wrapper which comprises treating said filler with an aqueous mixture composed of a fire resistant substance and a pore opening substance, such as cider vinegar, to facilitate impregnation of said filler by said fire resistant, the amount of the fire resistant substance in said mixture being insufficient to entirely prevent burning of the wrapper or filler to which it is applied but sufficient to cause said wrapper or filler to cease burning substantially concurrently with the cessation of a forced draft thereupon.

4. A smoker's article comprising a tobacco filler and a wrapper treated in its entirety with a mixture composed of a fire resistant substance comprising an aqueous solution of borax and a pore opening substance, the amount of borax being sufficient to cause the wrapper to burn more slowly than the filler and to cause the wrapper to cease burning substantially concurrently with the cessation of a forced draft through the article, whereby the burning portion of said filler will be positioned entirely within the unburned portion of said wrapper when said article is lighted in the process of smoking.

5. A smoker's article comprising a tobacco filler and a wrapper treated in its entirety with a mixture consisting solely of an aqueous solution of borax and a pore opening substance, the amount of borax being sufficient to cause the wrapper to burn more slowly than the filler and to cause the wrapper to cease burning substantially concurrently with the cessation of a forced draft through the article, whereby the burning portion of said filler will be positioned entirely within the unburned portion of said wrapper when said article is lighted in the process of smoking.

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