Aug. 21, 1951 F. J. SOWA 2,565,052

SMOKING ARTICLE

Filed Aug. 13, 1942 2 Sheets-Sheet 1

FIG. 1

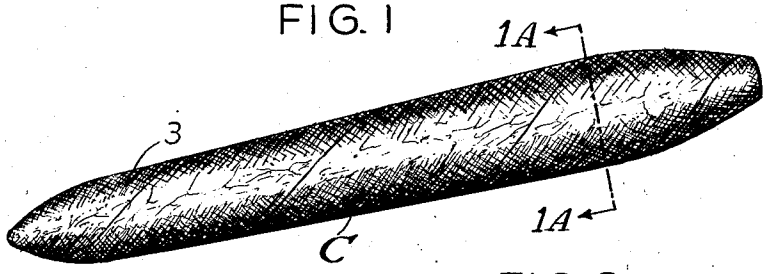


FIG. 2

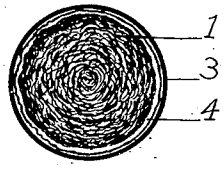


FIG. 1A

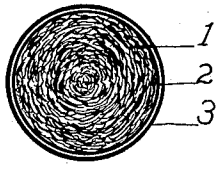


FIG. 3

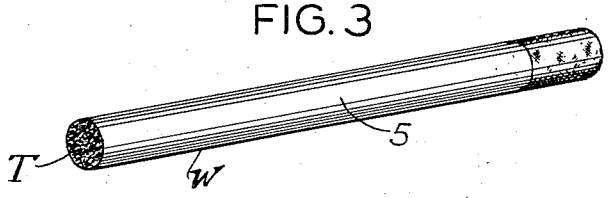


FIG. 4

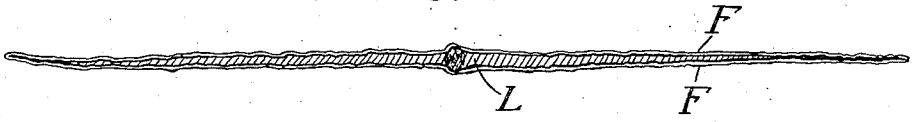
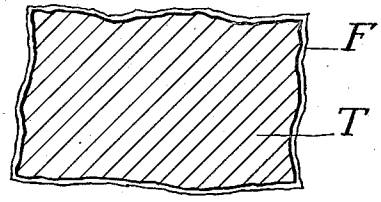


FIG. 5



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Aug. 21, 1951 F. J. SOWA 2,565,052

SMOKING ARTICLE

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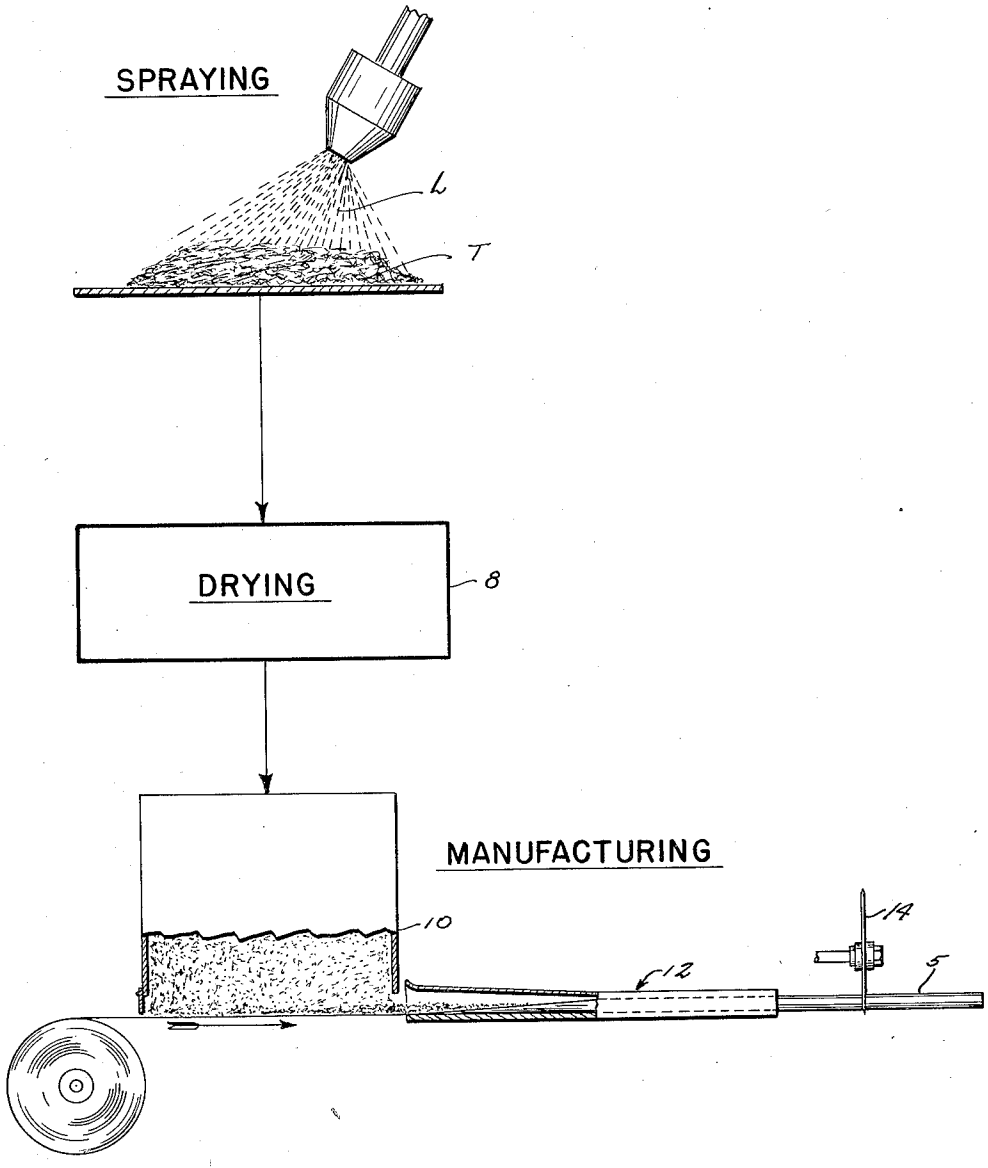
FIG. 6



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Patented Aug. 21, 1951

2,565,052

UNITED STATES PATENT OFFICE

2,565,052

SMOKING ARTICLE

Frank J. Sowa, Cranford, N. J., assignor to American Machine and Foundry Company, a corporation of New Jersey

Application August 13, 1942, Serial No. 454,675

16 Claims. (Cl. 131—8)

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This invention relates to smoking articles such as cigarettes, cigars and related articles and more particularly to novel smoking articles made from specially prepared tobacco.

It is, therefore, an object of my invention to provide improved types of smoking products such as cigarettes and cigars made from novelly processed tobacco.

It is a further object of my invention to provide improved types of smoking articles such as cigarettes and cigars formed from novelly blended and/or flavored tobacco.

It is an added object of my invention to form cigarettes and cigars and the like smoking objects from tobacco provided with a coating containing colloidally bound tobacco or tobaccos.

It is an added object of my invention to form cigarettes, cigars and other types of smoking products from tobacco treated with tobacco liquid containing colloidal tobacco, or a sol containing colloidal tobacco and flavoring materials.

My invention also consists in novel smoking articles such as cigarettes, cigars and the like made from tobacco processed in such a manner that substantially all of the tobacco of a given quantity is intimately associated with the blending tobaccos and/or flavoring tobacco or agents making up a particular blend.

It is also an object of my invention to provide novel smoking articles such as cigarettes, cigars and the like made from tobacco coated with a gel containing all or part colloidal blending and/or flavoring tobacco or tobaccos and agents.

It is an added object of my invention to provide a novel method for producing blended and/or flavored cigars, cigarettes and/or like smoking articles.

Other objects of my invention will be set forth in the following description, it being understood that the above statement of objects is intended generally to explain the same without limiting it in any manner.

In the accompanying drawings which form a part of this specification and wherein the several reference characters designate the same or like elements:

Figure 1 shows a typical cigar made in accordance with my invention;

Figure 1A is a cross sectional view taken on line 1A—1A of Figure 1;

Figure 2 is a cross sectional view of a modified type of cigar;

Figure 3 is a view of a typical cigarette made in accordance with my invention;

Figure 4 is a diagrammatic, greatly enlarged cross sectional view of a typical processed leaf of tobacco suitable for use in forming cigars and other smoking articles;

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Figure 5 is a similar view of a treated shred or particle of tobacco suitable for use in cigarettes; and

Figure 6 is a diagrammatic and schematic view showing of one method of forming a smokable article.

According to present practices the filler of most cigarettes and cigars consists of combinations of tobaccos with or without flavoring agents constituting blends which give to the resulting products characteristic qualities and aid in their sale to the public. The types and exact quantities of domestic and/or imported tobaccos making up a blend are not known since they constitute trade secrets, but in general in the manufacture of cigarettes a typical shredded cigarette filler may contain approximately 90 per cent more or less domestic by weight and 10 per cent more or less by weight imported tobacco. In cigar manufacture, a typical long or short filler may be composed of say 82 to 85 per cent by weight domestic and 15 to 18 per cent more or less by weight imported tobacco, such as Havana, although in some grades of cigars the percentage of imported tobacco may be less. Usually during some stage of processing casing and flavoring materials are added to the tobacco.

"Blended" or "American" types of cigarettes, above referred to may contain from three to five different kinds of American or domestic leaf including Virginia, and burley and others, and three or four types of so-called Turkish leaf including Smyrna, Macedonia, Latakia or other well known "Eastern," and imported types blended in suitable proportions such as stated above. These tobaccos are processed in the usual manner by being ordered or softened, stemmed in the case of American tobacco, after which the American and imported leaf are mixed together in proper proportions and cased with any known casing mixture, such as one gallon of water, licorice, glycerine and sugar per hundred pounds of tobacco treated. The tobacco is piled up to draw for a few hours, shredded, run through a dryer and cooler, and while going through the drier and cooler a light spray of flavoring may be added, after which the treated shredded tobacco is placed in boxes for about twenty-four hours to "draw," and then made into cigarettes.

The treatment of typical filler tobacco also involves several processing steps. For instance, such tobacco is cased by having moisture ap-

plied to hands of tobacco, excess moisture is shaken off after the moisture treated hands are placed butt end down and allowed to stand for about twenty-four hours. The tobacco is next shaken out, laid back in cases, covered and sweated for a suitable time, usually 4 to 6 days is sufficient, depending upon the type of leaf being handled. The sweated leaf is then stemmed, stored for aging or "marrying" of the leaves to obtain the best association of the types or grades of tobacco being handled, and after a suitable period, which may vary from days to months, it is ready for manufacture into cigars. Short filler is handled much in the same way, except that the tobacco constituting a given batch being processed is all mixed together and broken up in any suitable known manner.

According to my invention, smoking articles such as cigarettes, cigars and like products are made from tobacco treated with a tobacco liquid or sol containing colloidal tobacco, or colloidally bound tobacco, or colloidally bound tobacco with or without blending and natural or artificial flavoring materials. In preparing the tobacco liquid, a quantity of material which is to be used, either for the purpose of blending or flavoring or both, is selected depending upon the product being prepared. The materials selected may be the best grades obtainable, although materials heretofore considered as waste or by-products can be used satisfactorily thereby making possible a more efficient use of tobacco and satisfactory smoking article with benefits to both growers and manufacturers.

A preferred method of forming a tobacco liquid is as follows: A selected quantity of blending and/or flavoring tobacco or naturally occurring plant product flavoring material is preferably dried to remove most of the moisture retained therein, after which it is broken up into small pieces in any suitable manner. It has been found that dry grinding proceeds faster and more satisfactorily when the moisture content is reduced below five per cent. Any suitable device may be employed for reducing the broken up dried tobacco to final size. For instance, the tobacco or other material or mixture thereof may be placed in a ball mill and ground to colloidal, or substantially colloidal size or to a fineness such that it is easily dispersible in a neutral fluid such as water. This method of grinding, however, is relatively slow and the amount of time consumed varies according to the quantity of tobacco selected for grinding, the size of the mill and the balls or pebbles used therein, and the speed of operation of the mill. For optimum results the charge should not exceed the volume of voids in the mill. The amount of time required is also a function of the size and condition of the tobacco before it is placed in the mill. For instance, if the material being comminuted is small particle size at the outset, less time will be required than if the material is in the form of broken up leaves and stems.

If more rapid material grinding is preferred, a plate or disk type colloidal mill may be used, in which case a selected quantity of tobacco or other leafy material can be reduced advantageously to extremely fine size in the matter of minutes.

The mixture is ground for a period sufficient to reduce the solid material to extremely fine size, that is, to a state wherein all or preferably the greater part of the particles are in a colloidal state. It has been found that the grinding time varies over a considerable range, and that when this mixture is ground for a period ranging between six and eight hours in a 1¼ gallon mill, using ½ inch flint balls at 45 to 50 revolutions per minute, advantageous results are obtained. If the tobacco to be ground is in the form of parts of leaves, or the like, a selected quantity is preferably broken up in order to expedite its reduction to a partly colloidal tobacco, placed in a grinding device, such as a ball mill, and an aqueous medium, such as water, is added thereto to establish a suitable ratio, say of 1:8 by weight depending upon the type of tobacco or materials. The tobacco being formed into colloidally bound tobacco or tobacco liquid may also be subjected to dry and wet grinding or converted in any other suitable manner, such as described in co-pending Wells and Sowa application, Serial No. 414,221, now Patent 2,433,877 to F. H. Wells et al. issued January 6, 1948. Any fluid, preferably neutral in nature, such as water or dilute ethyl alcohol, with which a colloidal dispersion will take place, can be used. It is important that a fluid be chosen which will have little or no deleterious effects upon the tobacco or otherwise change its normal physical characteristics insofar as taste, odor and color are concerned, since they are carried over into the final product and retained therein. Water forms a very satisfactory medium and is usually used in an amount suitable to form a fluid mixture. A ratio of 1:8 by weight may be used, although other suitable proportions, as described hereinabove, will give the same or satisfactory results.

It will be seen that the period of grind is dependent to the same extent upon the quantity of material being ground, as represented by the mixture of fluid, and pulverized tobacco, the capacity of the ball mill, if a ball mill is selected as the grinding mechanism, the size of balls and speed of operation of the mill. I have found that a ball mill is a satisfactory device to use in carrying out this step of my process and that with a 1¼ gallon mill containing 800 cubic centimeters of water and 100 grams of tobacco constituting the wet grind mixture or tobacco liquid, the time required to reduce the charge of powdered tobacco to colloidal particles or partly colloidal state ranges between one and ten hours, and that on an average of six hours has proven to be an advantageous period.

The result of grinding tobacco whether for use in blending and/or flavoring in a fluid medium is a tobacco liquid, or colloidal solution, or one containing colloidal tobacco, or a tobacco sol. This product is a thick viscous liquid about the viscosity of heavy cream, although viscosity will vary depending upon the type of tobacco used and the ratio of tobacco to fluid. If necessary for proper application to tobacco to be treated, the tobacco liquid can be diluted to any desired viscosity.

The colloidally bound blending tobacco and/or flavoring sol or tobacco liquid preferably should be applied to the tobacco being processed as soon as possible after being completed because it has been found that it tends readily to ferment if allowed to stand for several hours, say three or four, unless refrigerated. A small quantity of preservative, such as benzoate of soda, can be used to prevent fermentation without unsatisfactory results to the final product. In general, however, this procedure is unnecessary.

If a tobacco liquid is produced by mixing together a selected quantity of ground tobacco and water in a ratio of say 1:6 or 1:8, or other proportion, such as described above, an intimate suspension can be obtained by mixing the material mechanically in any known manner as desired, the particles may be dispersed throughout the liquid phase by agitating with steam thereby effecting a proper dispersion.

The colloidally bound tobacco dispersion or tobacco liquid can be applied to tobacco to be treated as soon as grinding is completed or it can be treated by heat at atmospheric pressure or greater heat under elevated pressure, in the manner similar to that described in the co-pending Sowa and Tone application, Serial No. 446,366, now patent 2,485,670 to F. J. Sowa et al. issued October 25, 1949, filed June 9, 1942, for Method for Producing Tobacco Web Material, as by treating tobacco or tobacco liquid in an autoclave for a period of time sufficient to hydrate and swell the particles until substantially a hydrosol is formed, especially insofar as the finest or colloidal particles are concerned. Also, during the time of hydration there is some hydrolysis taking place and it is from this action that it is believed that the heat accelerates the hydration of the tobacco particles and also accelerates the limited amount of hydrolysis of such material contained in tobacco as glucosides, thereby increasing the aroma of the resulting tobacco product and greatly enhancing its desirability for use in forming smoking tobacco articles.

Heat at atmospheric pressures or higher heat at elevated pressure treatment may be given either before the tobacco is converted into a tobacco liquid or after. If it is resorted to after the formation of the tobacco liquid, it is preferred to place a quantity of the tobacco liquid in a pressure cooker and cook it therein at a pressure of fifteen pounds per square inch for a period of three hours at 250° F. water vapor temperature. Other pressures and cooking periods can be used advantageously. For instance, if the pressure is increased then the desired result is effected in a shorter time. Also, if desired, the mixture can be cooked at normal atmospheric temperature by heating in a reaction flask connected to a reflux condensor for about five hours and satisfactory results are obtained. During the heat treatment of the mixture, it is advantageous to agitate the tobacco liquid or suspension as by shaking or stirring, or in any other suitable manner such as bubbling live steam into the suspension because this breaks up particles tending to conglomerate and assists in the complete hydration of the individual particles of the suspension.

The tobacco liquid or sol, which is applied to shredded or other kinds of tobacco being processed, can be made in many ways, such for instance as from one or more tobaccos alone, or from suitable combinations of one or more tobaccos and flavoring materials. The flavoring materials to be formed into tobacco treating or flavoring liquids in the same manner as described hereinabove with reference to tobacco, preferably are aromatic and include naturally occurring aromatic plant products such as Latakia and other flavoring tobaccos, ginseng, sage, tonka beans, peppermint, sassafras, tea, hops, or natural or synthetic extracts, essences, flavoring fluids or oils which can be added in quantities deemed necessary to obtain a desired result such as enhancing the aroma and taste according to the specific blend being formed. Non-aromatic

materials such as saccharin in small quantities, fructose, glucose and licorice may also be used.

The tobacco liquid, which may be made up of tobacco alone or tobacco and flavoring materials, is next applied to the tobacco to be processed, as by spraying or dipping or any other suitable manner. If desired, natural or synthetic binders such as methyl cellulose, gelatine, agar agar and the like can be added to the liquids. If tobacco treating liquid is used it is generally made up of flavoring materials, natural or synthetic, in which any natural plant products are substantially all or in part reduced to colloidal state.

As mentioned above, the exact proportions of domestic and imported tobaccos constituting a given blend for cigarette, cigar or other tobacco products vary. A given blend for cigarette tobacco may contain about 90 per cent of domestic tobacco including burley, bright and other domestic tobaccos in desired quantities with which is mixed about 10 per cent of imported tobaccos including Turkish, Latakia, etc. If desired, a sol or tobacco liquid of colloidal tobacco or containing colloidal tobacco can be made from all of the imported tobaccos and applied to the main bulk of domestic tobaccos. On the other hand, a part of the Turkish tobacco can be mixed with the domestic tobacco as described hereinabove and another part, say the Latakia or other selected portion, can be formed into the blending sol and sprayed upon or applied otherwise to the mixture of domestic and Turkish tobaccos, after which the processed tobacco is dried to reduce the moisture to the desired content, usually between 10 and 12½ per cent. Figures 4 and 5 show schematically and diagrammatically cross sectional views in which the outer surface of a leaf of tobacco L and a shred of tobacco T are covered with a film or gel F containing colloidal blending or blending and flavoring or flavoring material. Although an unbroken film is shown and is preferred, it is likely that in most instances tthe entire surface of each leaf or tobacco piece or particle may not be completely covered. The desired effect will be obtained in either case. Due to the cellular structure of tobacco it is quite possible that some of the tobacco liquid will be absorbed by the tobacco to which it is applied and the coating will not be entirely regular.

The quantity of any particular imported tobacco, such as Turkish or Eastern for example Latakia, will vary according to the specific blends to be formed. Generally speaking from ½ to 4 pounds of Latakia, and in some cases if desirable, more can be used for each 100 pounds of tobacco being processed. The particular type of imported tobacco mentioned is only illustrative, the percentages are given merely as showing possible ranges which give satisfactory results, and are not to be considered as restrictive because obviously other suitable blending and flavoring combinations can be used according to a particular blend formula and the requirements of a manufacturer.

In some instances it may be desirable to form colloidally bound tobacco, or a sol, or tobacco liquid containing all or in part colloidal tobacco in which a part of the domestic tobacco is formed into tobacco liquid. Especially is this true in the case where tobacco dust or tobacco usually considered waste or by-product material is to be utilized in a more efficient manner as by being incorporated as an integral part of a batch of tobacco being processed. Such colloidally bound tobacco can be made from burley, bright, usually

up to 20 per cent by weight and applied to the main bulk of tobacco being processed. It is, however, possible to add higher percentages by mechanical manipulations such as by subjecting the tobacco being treated to successive applications of tobacco liquid and repeated dryings to remove excess moisture until the desired quantity of tobacco liquid has all been applied. Such materials are formed into sols, or tobacco liquids in the manner set forth hereinabove. In this case the main bulk of tobacco may contain a desired quantity of imported tobacco intermixed therewith in shreds or cut up pieces depending upon the ultimate use, that is, whether it is to be used in cigarettes or as smoking tobacco or the like. If this procedure is followed after the burley, bright or tobacco liquid, made from other domestic tobacco, has been applied to the batch of tobacco being treated when moisture has been removed to the usual content 10 to 12½ per cent, the tobacco is ready for storage or manufacture into cigars C or cigarettes 5, as shown in Figures 1 and 3.

In case the imported tobaccos have not been added to the bulk which constitutes 90 per cent more or less by weight of the batch being treated, a sol may be formed and added thereto as previously described. It is evident, therefore, that this procedure makes possible the positive incorporation of domestic and imported aromatic and so called non-aromatic tobaccos even though originally in a state usually considered as waste or of little value, because of the novel manner in which they are converted and used as a sol containing colloidal tobacco for coating and impregnating the main bulk of tobacco. If for example a given shredded cigarette mixture is to contain 50 per cent burley by weight and 40 per cent bright by weight, any desired percentage of domestic tobacco, as above described, may be added as a tobacco liquid. The same obtains with any portion of domestic tobacco regardless of the number, type and grade composing a particular blend. This use of tobacco by-products and waste material, such as stems, dust, chips, is made possible because they are converted into a form which enables them to be bound either as a gel like film coating or adsorption or both to the tobacco being treated.

The reference to Latakia is merely to illustrate how a particular blending and flavoring tobacco can be incorporated and distributed uniformly throughout a given blend wherein each and every particle has a positive effect and value in the final product. Obviously any and all of the flavoring and blending tobaccos or naturally occurring plant products can be converted into a blending and flavoring liquid, or a sol and sprayed or applied in any other suitable manner to a batch of tobacco being processed.

In any of the above cases, one or more flavoring materials in the form of naturally occurring plant products or mixtures containing one or more such products and natural or synthetic oils, extracts, flavoring and the like such as menthol, vanillin and rum can be added. These materials may be peppermint, tea, licorice, ginseng, sassafras or other known aromatic or non-aromatic materials which are considered as desirable to a particular blend. These materials can be added to any type of tobacco being processed, whether it be for cigarettes, pipe smoking or other use. When such plant product materials are used, a desired quantity is converted by grinding in water into a tobacco treating liquid or sol containing all or a part colloidal particles and applied, as by spraying to the tobacco being processed. When mixtures of natural plant products and extracts, oils and the like are used, the plant products may be ground with the extracts, with sufficient water or other suitable fluid to form a tobacco treating liquid or the extracts, etc., may be added to the blending and/or flavoring tobacco liquid which is applied to the bulk of tobacco in the same manner.

The flavoring material sol can be mixed with the selected quantity of blending tobacco ground in water or neutral fluid medium to form a blending tobacco-flavoring material tobacco liquid or sol and then sprayed upon the main bulk of tobacco treated. When this particular process is followed, a suitable quantity of material, such a peppermint, necessary to obtain a desired strength can be formed into tobacco treating liquid, usually between 1 to 10 per cent is used. Usually between 1 and 3 per cent will give a pleasant flavor and aroma. If ginseng is used, about 1 pound per 100 pounds tobacco will give satisfactory results, although more or less may be used according to the results desired. There is evidence that ginseng root when formed into a tobacco treating liquid also has hygroscopic properties which are of value in maintaining the tobacco moist and preventing throat irritation. Sassafras bark or root can also be formed into tobacco liquid and generally one pound per one-hundred pounds tobacco treated will prove satisfactory and give good results although up to 3 per cent may be used.

In general, it may be said that the actual quantities of any flavoring agent such as mentioned above will vary depending upon the result desired. My invention takes into consideration that all of these materials such as leaves, stems, fruits may be converted into a tobacco treating liquid and sprayed onto leaves, shreds or pieces of tobacco or the tobacco can be dipped into tobacco treating liquids in order to impart thereto the characteristic aroma occurring naturally in the materials used. The chief advantage of this type of addition over known present procedures such as adding of oil of peppermint, menthol and the like is that my process insures a longer lasting aroma which is available at the time of smoking. A possible explanation for this is the fact that these naturally occurring compounds are actually bound to the cellulosic and other plant products, which are released only at a higher temperature of smoking or through steam distilled due to the smoke decomposition products. It will be observed that by adding a naturally occurring product such as peppermint, sassafras root or bark, an advantage is obtained in having the principal essence such as menthol in the case of peppermint along with the many other naturally occurring essential oil and aromatic elements which are not usually available when a specific element is extracted previously for addition to tobacco, and furthermore the above mentioned blending and/or flavoring sols are produced without the use of extracting mediums, such as alcohol.

In all cases, flavoring material such as tobacco, peppermint, tea, can also be formed into a sol or tobacco liquid separately and added to the blending tobacco sol or applied separately after or before the bulk of tobacco being treated has been coated with blending tobacco liquid. The step of applying flavoring tobacco liquid can be concurrent with the application of casing as in the case of cigarette tobacco or at any other time

deemed expedient. When the batch of tobacco being processed is first treated with blending tobacco liquid only, it is advantageous to remove excess moisture, say to 10 to 12½ per cent before the flavoring tobacco treating liquid is applied. Any suitable mechanical device can be used for tobacco liquid application, such as a conventional casing machine (not shown) in which the tobacco is tumbled about as the coating is applied thereto. When a relatively large quantity of tobacco liquid, say 10 per cent tobacco by weight, or 10 pounds per 100 is used, it may be desirable to spray and dry several times in order to obtain best distribution of the blending and/or flavoring materials.

Natural or synthetic oils, essences, distilled flavoring materials and extracts can also be used in conjunction with the blending tobacco liquid. Such agents as oil of peppermint, or menthol, vanilla, rum can be mixed with the blending tobacco liquid, or it can be sprayed thereon after such tobacco liquid treatment.

Under certain conditions it may be desirable to change the natural flavor of tobaccos in order to simulate a different kind or type. For instance, if Havana tobacco is formed into a tobacco liquid or sol and added to a batch of cigarette tobacco composed of domestic tobacco, such as burley or bright, the result is a blended and flavored tobacco having the characteristic aroma of cigar tobacco. Satisfactory results are obtainable with from 2 to 10 per cent Havana per 100 pounds tobacco treated depending upon the desired strength of Havana tobacco aroma desired. A larger proportion than 10 per cent can be used if greater strength of aroma is desired.

Cigar tobacco can also be given characteristic aromas and flavors by the addition of blending and flavoring tobaccos. Porto Rico tobacco, if sprayed with a Havana tobacco liquid, takes on a Havana aroma. In this case the Havana tobacco, usually in quantities constituting between 2 to 5 per cent of the Porto Rico tobacco is formed into a tobacco liquid in any of the methods described hereinabove and applied to the surface of the tobacco to be treated as by spraying, after which the treated tobacco is dried to remove excess moisture therefrom to a point not in excess of 14 or 15 per cent and then it is stored or made into cigars. The actual quantity of Havana tobacco formed into a tobacco liquid or sol will depend upon the strength of Havana flavor sought for. So also, any kind of domestic cigar filler, binder or wrapper tobacco if treated similarly will take on the characteristic flavor and aroma of the tobacco composing the tobacco liquid or sol applied to the tobacco being processed.

The tobacco forming the final film upon the tobacco to which it is applied can be termed a "whole" tobacco film since it contains substantially all soluble and insoluble constituents of the original tobacco from which it was reconstituted. When used hereinafter, therefore, the term "whole" means tobacco substantially unmodified by constituents foreign to tobacco and retaining substantially all soluble and insoluble constituents normally found in tobacco, as well as its characteristic properties of color, taste and aroma. A similar meaning applies where the word "whole" is used in reference to natural plant material.

In Figure 1A, 1 presents the filler tobacco which can be processed in the manner described hereinabove. This filler tobacco can be domestic or imported tobacco coated with any type of blending and/or flavoring tobacco liquid made from tobacco leaves or pieces or tobacco usually considered waste, such for instance as chips, clippings, and dust, and/or natural plant products, extracts and/or synthetic flavoring materials as described hereinabove. The binder 2 encloses the filler to form a bunch, which in turn is enclosed within a wraper 3 to produce a cigar, as shown in Figure 1.

The binder material may be the conventional type formed from leaf tobacco or if desired any suitable substitute such as paper. In the case of a cigarette, such as shown in Figure 3, the shredded tobacco filler T (Figure 6) to which has been applied a selected tobacco blending and/or flavoring liquid or sol, or treating liquid L containing one or more natural or synthetic materials and then dried, as at 8, to remove excess moisture, may be provided with a conventional paper wrapper W. In forming cigarettes, the tobacco can be treated with a liquid containing all or partly colloidal tobacco or blending tobacco and/or flavoring materials either before or after being shredded, after which excess moisture is removed. Cigarettes are formed therefrom in the usual manner by making a rod, enclosing it in a paper web and cutting the cigarettes to length. Any suitable conventional cigarette making mechanism can be used. Such mechanism is indicated diagrammatically in Figure 6 wherein there is provided a tobacco feed device 10, a maker 12, and a cutoff 14 which severs individual cigarettes 5 from the formed continuous rod advancing from the maker 12.

Referring to Figure 2, if desired the cigar binder 2 can be omitted, and instead the filler after being shaped in any suitable known manner can be coated or dipped in a tobacco liquid to cover the exterior portions of the shaped filler with a gel-like covering film 4. The tobacco liquid can be made from tobaccos, normally used for binder purposes, or from by-product tobacco. When this coating is dried, the wrapper 3 can be applied in the usual manner. In case tobacco blending and/or flavoring liquids are used as binder substitutes, it may be desirable to employ a material which will give to the resulting film formed about the filler greater strength or tenacity when moisture is removed in order to hold the filler better for application thereto of a wrapper. This material, which has a somewhat plastic effect, can be either a natural or synthetic substance such as "Methocel," gelatine, agar agar and the like. A small quantity of these materials is necessary; 1 to 3 per cent has given desirable results.

Figure 2 shows diagrammatically a cross-sectional view of a cigar in which the layer or coating 4 is constituted of a tobacco liquid containing all or in part colloidal tobacco and/or blending or flavoring materials. So also the wrapper 3 of a cigar can be coated with tobacco liquid either before or after its application to a bunch 1, 2 or 1, 4. That is, the wrapper can be coated on that face which is to contact the bunch, or the exposed portion, before the treated wrapper is rolled about a bunch to complete a cigar, or tobacco liquid can be applied as by dipping, spraying, to the exterior of finished cigars. In this way wrappers can be flavored according to the type of tobacco liquid or sol applied. Accordingly, if a domestic wrapper has applied thereto a sol made from Havana, or Sumatra tobacco or mixtures of tobacco and flavoring materials, it assumes the taste and/or aroma of these tobaccos and materials. In general, the aroma of tobacco added to wrappers or cigars will increase in proportion to

the total quantity of aromatic tobacco and/or flavoring added in the form of tobacco liquid.

While the preferred embodiments of the invention have been described, it is to be understood that the invention is not confined to the specific method steps for carrying out the method herein set forth, by way of illustration, as it is apparent that many changes and variations may be made therein, by those skilled in the art, without departing from the spirit of the invention or exceeding the scope of the appended claims.

What is claimed is:

1. In a smoking article provided with an outer combustible wrapper, a quantity of pieces of filler tobacco enclosed by said wrapper, said filler having applied thereto a substantially continuous coating of whole blending and flavoring tobacco of a distinctly different type from said filler tobacco, said coating containing colloidal tobacco unmodified as to soluble and insoluble tobacco constituents, and flavoring material bound together and to said filler tobacco as a substantially continuous whole tobacco and flavoring material film covering substantially all surfaces of each of said pieces of filler tobacco.

2. A smoking article comprising filler tobacco, a coating containing colloidal blending and flavoring tobacco having characteristic properties of taste and aroma distinctly different from said filler tobacco forming a gel like film on said filler, a binder, and a wrapper enclosing said filler.

3. A smoking article comprising filler tobacco, a coating containing colloidal blending and flavoring tobacco having characteristic properties of taste and aroma distinctly different from said filler tobacco covering the surface of said filler tobacco, a binder film of colloidal tobacco enclosing said filler, and a wrapper applied about said filler and binder film.

4. A smoking article comprising filler tobacco, a coating containing colloidal blending and flavoring tobacco having characteristic properties of taste and aroma distinctly different from said filler tobacco covering the surface of said filler tobacco, a binder film of colloidal tobacco enclosing said filler, a wrapper applied about said filler and binder film, and a film containing colloidal tobacco applied to said wrapper.

5. A smoking article comprising filler tobacco, a tobacco leaf binder enclosing said filler to form a bunch, and a wrapper having a coating containing colloidal blending and flavoring tobacco having characteristic properties of taste and aroma distinctly different from said filler tobacco on the inner face thereof wrapped about said bunch.

6. A smoking article comprising filler tobacco, a tobacco leaf binder enclosing said filler to form a bunch, and a wrapper having a coating containing colloidal blending and flavoring tobacco having characteristic properties of taste and aroma distinctly different from said filler tobacco upon the outer face thereof wrapped about said bunch.

7. In a smoking article provided with an outer combustible wrapper, and filler tobacco enclosed by said wrapper, said wrapper being coated with colloidal blending and flavoring tobacco having characteristic properties of taste and aroma distinctly different from said filler tobacco on the inner face thereof.

8. A cigar comprising filler tobacco, a binder and an outer wrapper, and a coating consisting of a gel containing colloidal blending and flavoring tobacco having characteristic properties of taste and aroma distinctly different from said filler tobacco applied to said wrapper.

9. A cigar comprising filler tobacco, a binder and an outer wrapper, and a coating consisting of a gel containing colloidal blending and flavoring tobacco of types distinctly different from said filler tobacco applied to said wrapper and binder.

10. A smoking article comprising filler tobacco, a coating containing colloidal natural vegetable blending and flavoring materials having characteristic properties of taste and aroma distinctly different from said filler tobacco, on said filler, a binder film containing colloidal tobacco, and a material tending to increase the adhesiveness of said film, and a wrapper applied about said filler and film.

11. A smoking article comprising filler tobacco, a coating containing colloidal tobacco having characteristic blending and flavoring properties of taste and aroma distinctly different from said filler tobacco covering the surface of said filler tobacco, a binder film comprising a dispersion of colloidal tobacco and methyl cellulose enclosing said filler, and a wrapper applied about said filler and binder film.

12. A smokable article provided with an outer combustible wrapper, a quantity of pieces of filler tobacco enclosed within said wrapper, and a gel-like film of finely ground hydrated whole blending and flavoring tobacco including colloidal blending and flavoring tobacco, substantially unchanged with respect to soluble and insoluble constituents normally found in tobacco and characteristic properties of tobacco, said blending and flavoring tobacco having characteristic properties of taste and aroma distinctly different from said filler tobacco covering the major portion of the exterior surface of each piece of said quantity of filler tobacco, said tobacco in said film being bound together and adhering to said filler tobacco by the natural adhesive properties of said tobacco in said film.

13. A smoking article consisting of shredded filler tobacco, a gel-like coating of whole blending and flavoring tobacco having inherent adhesive properties and containing colloidally dispersed whole blending and flavoring tobacco of a type having characteristic properties of taste and aroma different from said filler tobacco covering said shreds of filler tobacco, said tobacco forming said coating containing hydrated whole tobacco particles substantially unmodified by the addition of additives foreign to natural tobacco and retaining substantially all soluble and insoluble constituents normally present in tobacco, and characteristic properties including color, taste and aroma, and an outer wrapper enclosing said coated shredded filler tobacco.

14. A smoking article comprising shredded filler tobacco, and a coating of colloidal whole flavoring tobacco of a type distinctly different from said filler tobacco containing substantially all soluble and insoluble constituents of the original flavoring tobacco applied to at least one surface of substantially each shred of said filler tobacco.

15. A smoking article including as components a filler tobacco and a wrapper, at least one of said components having a coating of whole blending and flavoring tobacco of a distinctly different type than said filler tobacco, said coating containing colloidal tobacco unmodified as to soluble and insoluble tobacco constituents.

16. Tobacco having a blending and flavoring pellicle covering consisting of a colloidal suspension of natural blending and flavoring tobacco of

a type having qualities of aroma and flavor characteristic of said blending and flavoring tobacco and distinctly different from the tobacco supporting said pellicle, said blending and flavoring tobacco in said suspension retaining substantially all soluble and insoluble constituents and characteristic properties normally present in said original type of blending and flavoring tobacco.

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