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CIGARETTE PACKAGE AND METHOD OF PACKAGING CIGARETTES

Original Filed July 15, 1931 2 Sheets-Sheet 1

Fig. 6

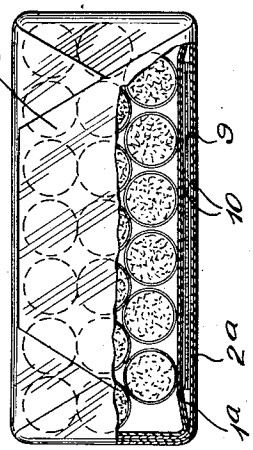


Fig. 7.

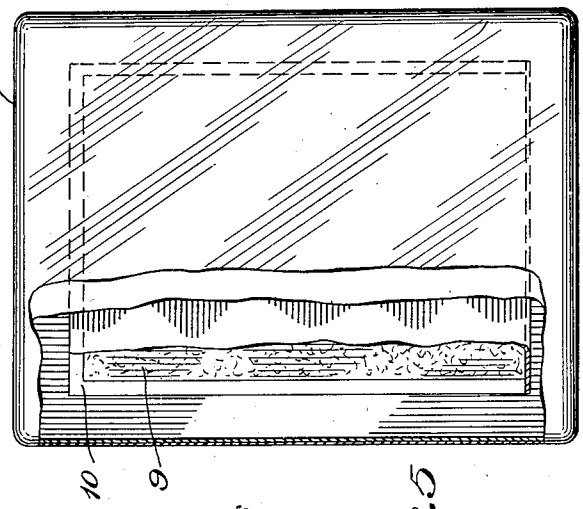


Fig. 4

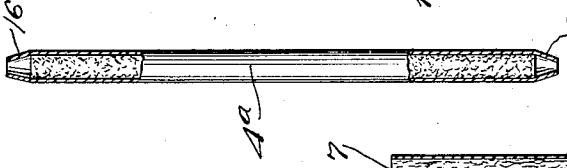


Fig. 5

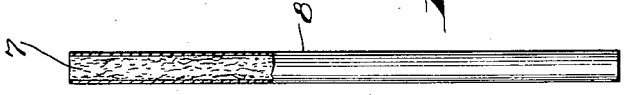


Fig. 3

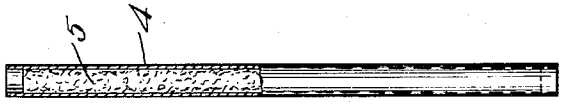


Fig. 1

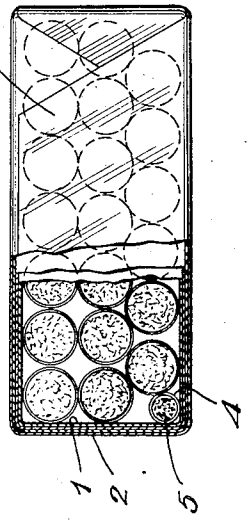
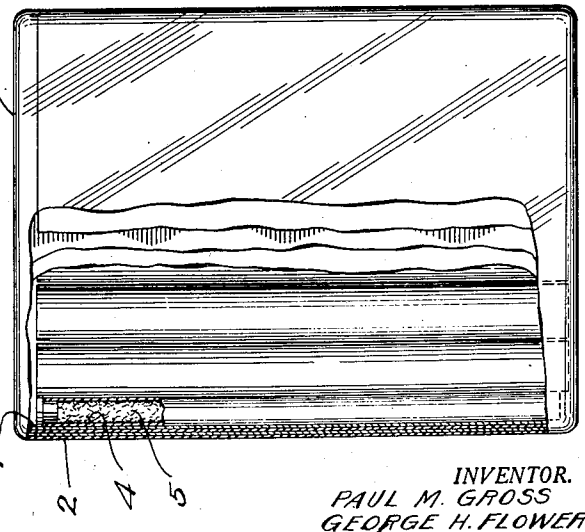


Fig. 2



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CIGARETTE PACKAGE AND METHOD OF PACKAGING CIGARETTES

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Fig. 10

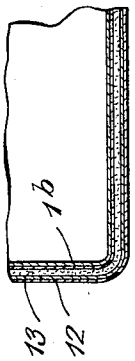


Fig. 11

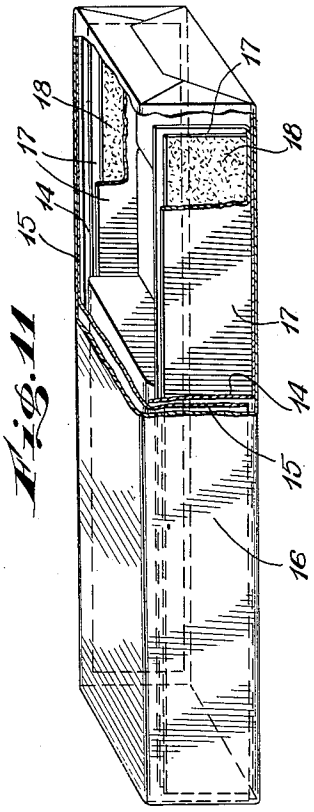


Fig. 12

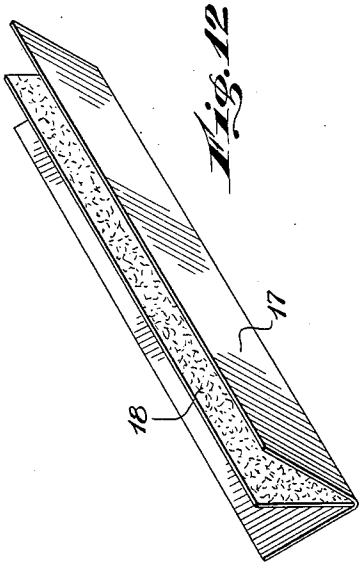


Fig. 8.

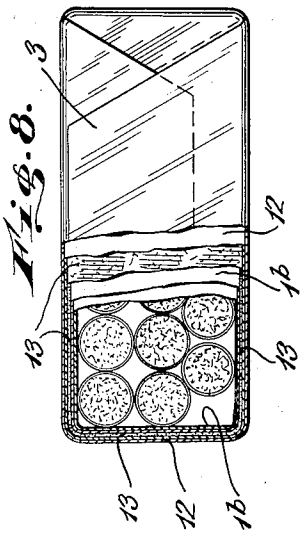
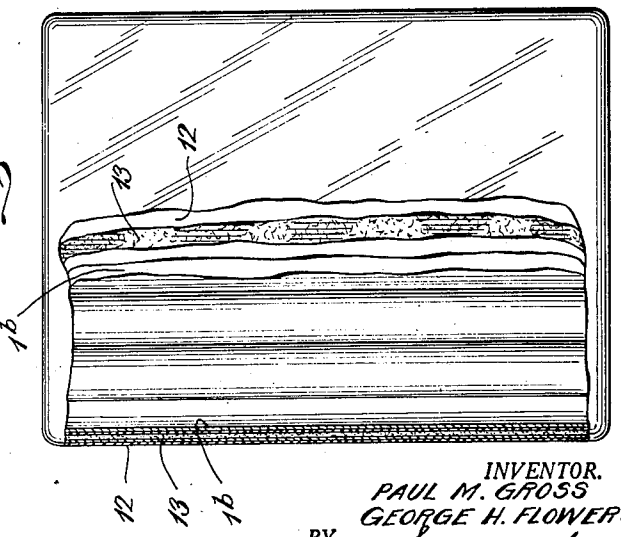


Fig. 9



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UNITED STATES PATENT OFFICE

1,972,222

CIGARETTE PACKAGE AND METHOD OF PACKAGING CIGARETTES

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Original application July 15, 1931, Serial No. 550,978. Divided and this application March 31, 1932, Serial No. 602,306

6 Claims. (Cl. 206—41)

Our present invention relates to cigarette packages, including individual containers for personal use and cartons containing the same, and method of packaging cigarettes, and this application is a division of our copending application, Serial No. 550,978, filed July 15, 1931 relating generally to the manufacture of cigarettes and more particularly to a method of increasing the moisture content of tobacco in manufactured and packaged cigarettes.

It is well known in the art that practically all of the popular brands of paper-wrapped cigarettes now upon the market are made with tobacco, which is usually in shredded form, and treated in any of the well known or approved ways to bring its moisture content to approximately 9 or 10% by weight, at which it can be fed more evenly to the cigarette machinery than when the moisture content is higher, and the tobacco in this form is conveyed into any approved so-called "continuous rod cigarette machine" and made into cigarettes. Such cigarettes, because of the particular or low moisture content of the tobacco, will be found to be firm and uniformly filled, but not so pleasing to the taste, when smoked, as they would be if the moisture content of the tobacco was increased, to, say, approximately 12%.

After the cigarettes have been so manufactured, a selected number as, for instance, 20, are immediately packed into a suitable container, such as a container of the so-called "cup" or "pouch" type, although we do not wish to be limited to this particular type of package as the invention may be employed in connection with other types.

The so-called "cup" or "pouch" package as illustrated in Figures 1 and 2 of the accompanying drawings, usually consist of an inner wrapper 1 of foil or paper, or both combined, and an outer wrapper 2 of relatively stiff paper, which is folded into the form of a cup or pouch, one end of which is closed, and the other end open, and through which open end a portion of the inner wrapper of foil or foil and paper projects, after which such projecting portions of the inner wrapper are folded and closed or sealed as at 3, Fig. 1, so that such folded and sealed end may be readily opened or torn away to gain access to the cigarettes within the package. Sometimes the packages are enclosed in an outer wrapper of glacine paper or cellophane, and our improved package may or may not have such outer covering, as desired.

At present cigarette packages of the kind referred to are made by automatic machinery, and in such machines a suitable number of cigarettes, such as are required for the particular package, are collected and then packed into the cups or pouches which are also formed by the machine. Sometimes the machines form the empty pouches and the collected cigarettes are first compressed and then inserted en masse within the cups or pouches; and sometimes the wrappers or pouches are formed around the collected mass of cigarettes, and the open end of the cup or pouch is then closed by folding and sometimes by sealing the material of the inner wrapper at one end of the package as shown in Fig. 1.

According to our method we propose to select and assemble with the collected group of cigarettes to be packaged, a suitable humidifying element which may take any one of a number of forms that will hereafter appear, and these humidifying elements are of such a size and construction that they may be included within a cup or pouch package as now constructed and without increasing the size thereof. And furthermore the construction of the humidifying element is such that there will be no danger of staining or discoloring the delicate cigarette wrapper paper, which would be very undesirable.

It is the object of the present invention to provide a method or process of packing cigarettes whereby the cigarettes may be made from tobaccos having a moisture content best suited to machine manufacture, and wherein the moisture content may be appropriately raised or increased after the cigarettes have been made and packed for shipment and sale.

A further object of the invention is to provide a novel cigarette package having enclosed therein a novel humidifying element carrying just sufficient moisture quantitatively to raise to the proper degree for smoking purposes the moisture content of the tobacco in the packaged cigarettes and no more.

A still further object of the invention is to provide a novel carton of packaged cigarettes having enclosed therein a novel humidifying element carrying just sufficient moisture quantitatively, and no more, to properly condition all the tobacco contained in the cigarettes of the different packages enclosed within the carton.

With these and other objects in view, the invention comprises the novel methods or processes and method or process steps, and the novel cigarette packages, including cartons, herein described in detail and then more particularly pointed out in the appended claims.

In order to enable others skilled in the art to understand, make and use our invention we will now proceed to describe the same in detail in

connection with the accompanying drawings, wherein,—

Figure 1 is a top plan view of a known form of cigarette package embodying our invention;

Figure 2 is a side elevation of the package shown in Fig. 1, with a portion of the wrapper broken away to show the moisture carrying insert;

Figure 3 is a longitudinal section of one form of insert;

Figure 4 is a similar view of a slightly modified form of insert;

Figure 5 is a longitudinal section of another form of insert;

Figure 6 is a top plan view, partly in section, of a cigarette package embodying another form of the invention;

Figure 7 is a side elevation, partly in section, of the package shown in Fig. 6;

Figure 8 is a top plan view, partly in section, of another embodiment of the invention;

Figure 9 is a side elevation of the package shown in Fig. 8, with a part of the outer wrapper broken away to expose the moisture carrying elements;

Figure 10 is an enlarged section of a portion of the wall of the package illustrated in Fig. 8.

Figure 11 is a perspective view of a carton of cigarette packages showing our invention incorporated therein;

Figure 12 is a perspective view showing one form of carton insert made according to our invention.

In Fig. 3 of the accompanying drawings we have illustrated one form of humidifying element or insert, which consists of a tubular casing 4, which may be conveniently made of water and moisture-proof material, such as wax paper of the type now usually employed for drinking straws, the tube being preferably flexible or yieldable so that it may readily conform to the cigarettes when compressed and packed in the cup or pouch package and without injuring the same. The tube 4 is almost completely filled with a mass of absorbent material 5, such as blotting paper, or absorbent cotton or other absorbent material, which almost completely fills the tube except at the extreme ends thereof. We prefer to make the tubes slightly shorter than the cigarettes and to leave the ends of the tube unfilled so as to avoid any danger of the moisture contained in the absorbent material making direct contact with the delicate paper wrappers, such as would stain and discolor them.

The dimensions of the tube 4 and the quantity of absorbent material and moisture carried thereby are so calculated and measured with reference to the quantity and moisture content of tobacco contained in the group of cigarettes within the package that there will be just sufficient humidifying air or moisture given off quantitatively to raise the moisture content of the tobacco within the package about 3%. In other words, if the cigarettes are made from tobacco having a moisture content of about 9%, this moisture content, after the cigarettes have been packaged with the humidifier, will be raised to about 12%, which will place them in the best condition for smoking purposes.

In Figures 1 and 2 we have shown the tubular humidifier located in one corner of the package, adjacent one row of the cigarettes, where there is ample space left because in packing cigarettes in cup or pouch packages there is usually one less cigarette in one of the outer rows than there are in the other rows. It will be obvious of course that more than one humidifier may be inserted in each package if so desired.

In Figure 4 we have shown a humidifier like that illustrated in Figure 3 except that the ends of the tube 4a are partially closed by flattening or collapsing said ends as at 6. By this construction the rate of flow of the humid air from the open ends of the tube may be regulated or retarded.

Instead of making the humidifier from a collapsible tube such as shown in Figures 3 and 4, we may make them from a rod or cylinder 7 of porous material such as wood or any other porous composition coated as at 8, except at its ends, with a substance which is impervious to moisture. Humidifiers of this type may be saturated with water and inserted into the packages of cigarettes and sealed therein during the process of wrapping as described.

Humidifiers made according to our invention may have any convenient diameter or length, dependent upon how much moisture is to be introduced into the cigarettes, although the length of the humidifier should not exceed the length of the cigarettes in order to maintain the form, shape and size of the present conventional package.

While we have shown and described three forms of cylindrical humidifiers, we do not wish to be limited to these particular constructions, as obviously other forms will quickly suggest themselves.

In Figs. 6 and 7 of the drawings we have shown a humidifier consisting of a thin rectangular sheet of blotting paper 9 arranged between two sheets of water or moisture-proof paper 10. This form of humidifier may be located in the package of cigarettes between the inner foil wrapper 1a and the outer wrapper 2a. Such humidifiers may be made relatively flat and thin so as to occupy a space between the inner and the outer wrappers of the cup or pouch without unduly altering the scope of the package.

In Figures 8 and 9 we have shown a slightly different form of the invention. In these figures the humidifier is formed by making the cup or pouch of a blank or label composed of a relatively semi-impermeable outer layer 12 having its inner face backed or coated with an absorbent material 12, such as thin blotting paper or the like. In these figures the numeral 1b indicates the inner wrapper of foil or paper or both.

In every form of humidifier employed it will be understood that the humid air or moisture coming off from the moisture carrying element, is circulated throughout the cigarettes so that it will be readily absorbed or taken up by the tobacco, but is prevented from escaping from the package by reason of the fact that the package is otherwise closed by the inner and outer wrappers, and care is exercised at all times to provide just sufficient moisture quantitatively to bring the quantity of tobacco within the package to just the proper condition, and no more.

As a further embodiment of our invention instead of inserting the humidifiers directly into the individual packages themselves, we may insert the humidifiers in a carton containing a number of packages of cigarettes, which cartons are afterwards enclosed within a wrapper sheet of waxed or paraffined paper or other water repellant material.

We have illustrated this form of invention in

Figures 11 and 12 wherein we have shown a carton of ordinary form consisting of two telescoping box members 14 and 15, which when closed may be wrapped within an outer wrapper 16 of waxed or paraffined paper or other moisture repelling material. In this form of our invention the humidifier consists of a sheet 17, of waterproof material, such as waxed or paraffined or otherwise treated paper, folded in V-form, as shown in Figure 12, between the folds of which is located a sheet of blotting paper or other absorbent material 18. One or more humidifiers of this construction may be inserted within the carton between the inner wall or walls thereof and the ends of the cigarette packages. The humidifiers are preferably of slightly less length than the over-all length of the carton proper so that the moisture from the saturated absorbent strip 18 may escape not only from the ends of the water-proof covering, but from the top thereof, and since the carton is otherwise sealed, such moisture or humid air will ultimately find its way into the tobacco in the cigarette packages and raise the moisture content of the tobacco to the proper degree.

So far as we are aware, we are the first in the art to provide for raising the moisture content of manufactured and packaged cigarettes by incorporating a humidifying element within the cigarette package during the formation of such package, so that the closed and sealed package will carry its own moistener which will raise the moisture content of the tobacco in the cigarettes after they have been manufactured from tobacco which carries a relatively low moisture content best suited to cigarette manufacture.

We have demonstrated by numerous experiments extending over a long period of time that we can successfully increase the moisture content of packaged cigarettes in the manner herein-described, and the invention is made entirely practicable by reason of the fact that the humidifiers will be enclosed within the packages by the same machinery employed to make the packages, so that the only additional cost of cigarettes packaged according to our invention is the cost of the humidifier itself, and as all of the various forms of humidifiers disclosed herein are extremely simple and can be manufactured at small cost, the added cost of the completed package is practically negligible. This is of very great importance from an economical standpoint because it is well known that the popular brands of cigarettes are now selling at a price that will not permit of any appreciable increase in the cost of manufacture thereof.

Another important result made possible by our invention resides in the fact that the manufactured and packaged cigarettes may be readily flavored with any suitable flavoring extract or easily medicated by any appropriate medicament. This is accomplished by saturating the absorbent material of the humidifiers with a flavoring extract or by a medicament so that the humid atmosphere given off by the humidifier with its flavor or medicament will be quickly absorbed by the tobacco in the cigarettes. This is important because by our process or method the flavoring extract or the medicament need not be added to the tobacco itself when the cigarettes are manufactured. By adding the flavoring or the medicament after the cigarettes have been manufactured and packaged it will be apparent that only such quantity of the total number of cigarettes manufactured may be treated as desired, and they may be treated at any time after their manufacture.

While we have herein illustrated and described what we now consider to be the preferred embodiments of our invention, we do not wish to be understood as limiting ourselves to the constructions shown except as we may be limited by the appended claims, because further modifications of the present disclosures will readily suggest themselves to those skilled in the art after they have become acquainted with our objects and purposes and the different disclosed ways of accomplishing the stated results.

We claim:

1. As a new article of manufacture, a cigarette package comprising a moisture-repellant wrapper and a group of paper-wrapped cigarettes enclosed therein, and a humidifying element having an imperforate wall enclosed within the package along with the cigarettes, the original moisture-content of the tobacco in the packaged cigarettes being approximately 9% and the charge of available moisture in the humidifying element being proportionate and sufficient to raise the moisture-content of the cigarette tobacco to approximately 12%.

2. The package of claim 1, in which the moisture-content of the humidifying element has operated to raise the moisture-content of the tobacco in the packaged cigarettes to approximately 12%.

3. As a new article of manufacture, a cigarette package comprising an outer pouch-like container formed from a moisture-repellant wrapper of flexible material, a group of paper-wrapped cigarettes enclosed therein, and a humidifying element enclosed within the container along with the cigarettes, comprising an open-ended tube having an imperforate wall, said element arranged alongside and lengthwise of the cigarettes, the original moisture-content of the tobacco in the packaged cigarettes being approximately 9% and the charge of available moisture in the humidifying element being proportionate and sufficient to raise the moisture-content of the cigarette tobacco in the package to approximately 12%.

4. The package of claim 3 in which the moisture-content of the humidifying element has operated to raise the moisture content of the tobacco to approximately 12%.

5. As a new article of manufacture, a cigarette package comprising an outer pouch-like container formed from a moisture-repellant wrapper of flexible material, a group of paper-wrapped cigarettes enclosed therein and a cylindrical humidifying element enclosed within the container along with the cigarettes, said element located in a corner of the package alongside and lengthwise of the cigarettes, the original moisture-content of the tobacco in the packaged cigarettes being approximately 9% and the charge of available moisture in the humidifying element being proportionate and sufficient to raise the moisture-content of the cigarette tobacco in the package to approximately 12%.

6. The package of claim 5, in which the moisture-content of the humidifying element has operated to raise the moisture-content of the tobacco to approximately 12%.

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