UNITED STATES PATENT OFFICE.

CARLETON ELLIS, OF LARCHMONT, NEW YORK.

MASTICABLE TOBACCO SUBSTITUTE.

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To all whom it may concern:

Be it known that I, CARLETON ELLIS, a citizen of the United States, residing at Larchmont, in the county of Westchester and State of New York, have invented certain new and useful Improvements in Masticable Tobacco Substitutes, of which the following is a specification.

This invention relates to masticable tobacco preparations and consists in a tobacco preparation adapted for chewing purposes and having the tobacco therein contained thoroughly sealed with a water-proofing masticable waxy body, all as more fully hereinafter set forth and as claimed.

In the cure of the habit of tobacco chewing it has proved very difficult to break off the practice suddenly, the system not tolerating the discontinuance of a supply of nicotin without considerable distress, manifesting itself as an almost irrepressible inclination towards resumption of the practice. Nicotin is a very active body physiologically and in chewing tobacco it is the alkaloid itself which is administered to the system, not its relatively less toxic decomposition products, as in the smoking of tobacco. Once habituated to this powerfully toxic substance, the human system finds great difficulty in dispensing with it. In abruptly ceasing the practice of chewing tobacco, the chewer not only misses the habit of masticating, but the familiar taste, and, which is much more important to him, the familiar physiological effects. Nor has it hitherto been possible for him to cease gradually. It is not feasible to dilute his plug tobacco in any way or weaken its strength materially. Nor, from force of habit, is it generally possible for him to chew less often or use a smaller chew. For the foregoing reasons the cure of the tobacco chewing habit has proved difficult to the physician's skill.

It is the object of the present invention to provide a means and devise a way whereby gradual discontinuance of the tobacco chewing habit may be made feasible. To this end, tobacco extract with suitable admixtures giving the desired flavors is compounded, but the tobacco contained therein is sealed away to a greater or less extent from the saliva by the use of water-proofing waxy or gummy bodies of a solid but masticable nature covering and sealing the tobacco extract. The degree of this accessibility to saliva may be made as great or as little as may be desired, rendering it possible to provide a series of plugs of graduated strength, each progressively less available than its predecessor. Using such a graduated series of plugs, the cure of the tobacco habit may be made as slowly progressive as desired and grave systematic disturbances, such as follow sudden discontinuance of chewing, may be completely avoided.

When unwaxed tobacco extract is exposed to the saliva it is of course immediately wetted and solution sets in. If it be waxed with a masticable body of a waxy nature however, it is not wetted except at the places where mastication displaces the wax and exposes particles of the tobacco extract, nor is the nicotin solution formed save at such places, while the progress of mastication continually tends to recover exposed places while exposing fresh surfaces. The result is that such a waxed material is much less available as to the saliva than is an unwaxed; or, which is the same thing, the same amount of tobacco, as in a chew of convenient size, serves for a longer period of time before exhaustion. In other words, the chewer secures less nicotin from an equivalent plug in the same time; the mastication is spread over a time as long, possibly, as that required for several ordinary plugs. The advantage of this in "tapering off" is obvious. The chewer has the familiar taste of the tobacco, he has the familiar mastication and he has the familiar physiological effects, but the last in less degree.

Bodies of a generally waxy nature like those customarily used in chewing gum are of course unobjectionable in chewing, which is not the case with the foreign fibers sometimes added to tobacco in making plugs; and they (the gums and waxes) are generally liked by the chewer. In and of themselves, they are often used in attempts to reform the tobacco chewing habit; but they have proved of little utility in this direction, satisfying merely the mechanical craving but giving neither the desired taste nor the desired physiological effects. Any of these bodies of a generally waxy nature, singly or admixed, may be used in the present invention. Gum-chicle, soft paraffin, beeswax, ceresin, spruce gum, and balsam of tolu, and many other normally solid but masticable substances of a generally waxy nature are

well adapted to the present purpose as being impermeable to water while soft and plastic in the mouth.

Preferably I employ the so-called solid extract of tobacco and this may be waxed as described and the waxed tobacco may be used with sugar, licorice and other condiments customarily employed in making the various brands of plug tobacco. For very slowly available plugs, however, I prefer a maximum of wax and a minimum of tobacco. In the treatment of the tobacco habit in the manner described, the final plugs used are always preferably composed mostly of wax with a very small proportion of extract, evenly distributed throughout the mass. In the last stages of the cure, the wax should have merely enough extract to give the desired taste without an appreciable amount of nicotin.

A suitable mixture of tobacco extract and wax may be made by taking two pounds of gum chicle, twelve ounces of tobacco extract of a specific gravity of about 25° or 30° Baumé, four ounces granulated extract of licorice and one-quarter ounce of any of the usual or standard commercial tobacco flavoring essences.

Another composition consists of two pounds of chicle, four ounces paraffin wax, one pound of "solid" extract of tobacco, four ounces of licorice extract, four ounces of snuff and one-quarter ounce of flavoring material consisting of essence or oil of valerian, cardamon and orange.

Still another composition consists of two pounds of chicle, one-half pound of tobacco extract, one-quarter pound of licorice extract, two pounds sugar and one-half ounce of the above mentioned flavoring material.

In making up these compositions, I first melt the chicle or the wax on a water bath, heating gently for one or two hours until moisture is largely removed. This is facilitated by the employment of a vacuum pan. To the melted chicle I add the extract of licorice and the tobacco extract, and if sugar, glucose, honey, or similar sugary material is to be employed, I prefer to separately cook it to form a caramel like material, which I add to the melted chicle. The mixture is then well agitated, removed from the source of heat, and the flavoring material introduced. The mass is then rolled out on a slab to the thickness required and cut to the shape desired. In order to overcome the stickiness of the material while being rolled, I may sprinkle the mass with powdered sugar or preferably with dry snuff. In the latter case I secure a masticable tobacco preparation having a coating of snuff, so that when the material is first introduced into the mouth, the flavor of snuff predominates, to subsequently be in part supplanted by the extracts and the flavoring material present.

I find in mixing snuff and chicle, that there are certain limiting proportions beyond which it is undesirable to go and obtain a gum having satisfactory tenacity on mastication; one which does not disintegrate on chewing. If a large proportion of fine snuff be present, and especially if this snuff be in a very dry condition, on chewing for some time the waxy seal surrounding the particles becomes broken to some extent and the snuff particle becomes moist and swells slightly, further tending slightly to rupture the seal, thus causing the chicle to assume a granular condition. In order to overcome this difficulty, I have compounded snuff and tobacco extract with the chicle, keeping the snuff below the point at which disintegrating action commences, and making a masticable tobacco preparation which is generally serviceable. While ordinarily one part of snuff to two parts of chicle produces a product which under certain circumstances is prone to swell on chewing, by using one-half or one-quarter this amount of snuff and introducing an equivalent amount of tobacco extract, a product is secured which does not disintegrate during mastication, and which delivers its tobacco components slowly and gradually over a long period of time, so that the flavor lasts indefinitely and the user secures the flavor of tobacco without the injurious effects which large quantities of chewing tobacco taken under the same circumstances would produce.

I find the most satisfactory proportions of a preparation containing both snuff and tobacco extract incorporated with chicle are represented by eight parts of chicle to one part of snuff, carrying from two to four parts of tobacco extract.

Kneading the tobacco extract and gum or wax together thoroughly, makes a mass in which, with these relative proportions, each particle is thoroughly protected by a film of wax; as well as being interiorly protected by penetrating wax particles against too quick action of saliva, while at the same time, said mass in most of its characteristics is substantially like ordinary chewing tobacco. When articles still less quickly available are desired, the proportion of wax may be increased to several times that of the tobacco extract.

Less tobacco extract and more wax may be employed in making articles to be successively used in curing the habit. For instance, after using an extract and wax composition in the proportions just stated until the chewer's system has become habituated to that amount of tobacco, a composition may be used in which the relative proportion of extract to wax is diminished to 1:4. After a due time, a composition having the ratio of 1:5 may be employed, and so on, until the chewer is able to use wax alone

without systematic distress. A series of graded tobacco articles of this nature, in tablet or other convenient form, may be conveniently assembled in a single package, the series beginning with a waxed tobacco article relatively strong, as described, and ending with a waxed tobacco article relatively weak. Such a shaped mass of wax and extract is also useful in curing the snuff chewing habit, the same amount of nicotin products being much less available than when used without the wax and the chewing lasting over a much longer time.

I lay claim to this combination based on the discovery that the granulating effect of snuff on chicle may be retarded or eliminated in the presence of tobacco extract. I also lay claim to the product produced by rolling the preparation in snuff so as to secure a snuff coated material. I prefer to make my composition in the form of sheets or strips the size of ordinary chewing gum, these strips being coated with a thin layer of snuff to prevent adhesion and give a quick acting initial flavor.

What I claim is:

1. A chewing gum comprising a mixture of tobacco extract, a finely comminuted tobacco and a masticable waterproof waxy body, solid at ordinary temperatures.

2. A chewing gum comprising a mixture of tobacco extract, snuff and a masticable waterproof waxy body, solid at ordinary temperatures.

3. A chewing gum comprising a mixture of tobacco extract, snuff and chicle.

4. A chewing gum comprising a mixture of solid tobacco extract and a masticable waterproof waxy body, solid at ordinary temperatures.

5. A chewing gum comprising a mixture of tobacco extract of about 30° Baumé and a masticable waterproof waxy body, solid at ordinary temperatures.

6. A chewing gum comprising a mixture of tobacco extract and a masticable waterproof waxy body including chicle, solid at ordinary temperatures.

7. A chewing gum comprising a mixture of tobacco extract and chicle.

8. A chewing gum consisting of a mixture of tobacco extract, chicle, licorice and a flavoring material consisting of essential oils.

9. A chewing gum comprising a mixture of tobacco extract, paraffin wax, chicle, licorice extract and a flavoring material.

10. A chewing gum comprising a mixture of tobacco extract and a masticable waterproof waxy body, solid at ordinary temperatures, all incorporated with suitable flavoring material.

11. A chewing gum consisting of tobacco extract and chicle, said gum being coated with snuff.

12. A chewing gum comprising chicle, snuff and tobacco extract in about the proportion of eight parts chicle, one part snuff and four parts tobacco extract.

In testimony whereof I have affixed my signature in presence of two witnesses.

CARLETON ELLIS.

Witnesses:

NATHANIEL L. FOSTER,

HENRIETTA BERKWITZ.