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E. BERNHARD
CIGARETTE STRUCTURE

2,815,028

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FIG. 1

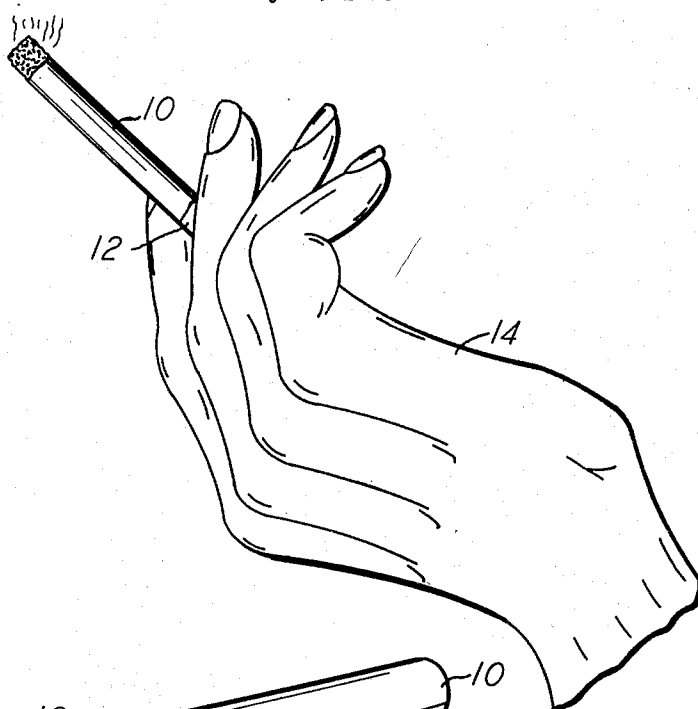


FIG. 2

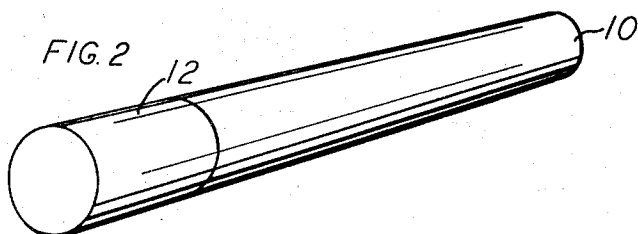
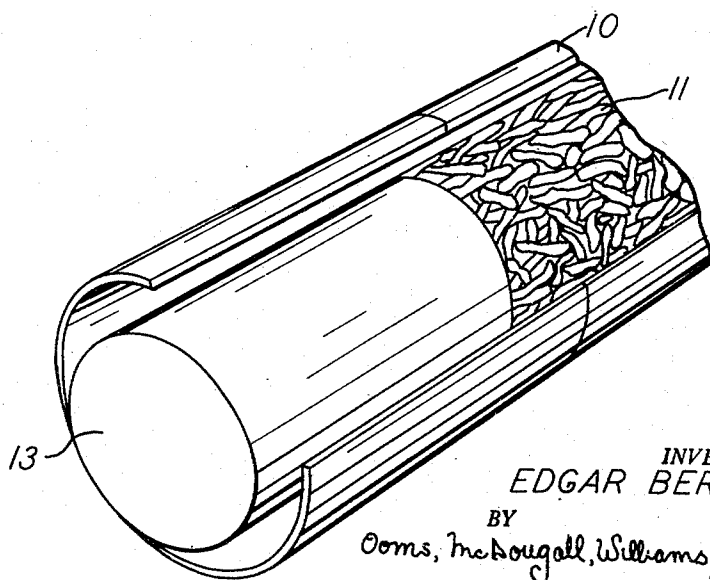


FIG. 3



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CIGARETTE STRUCTURE

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8 Claims. (Cl. 131—8)

This invention relates to a cigarette and it relates more particularly to a cigarette which has all of the appearances of a cigarette, burns like a cigarette and acts like a cigarette but which is constructed to prevent passage of smoke rearwardly through the end of the cigarette into the mouth in response to suction or the like.

For medical reasons, many people are required to refrain from smoking tobacco products, such as in pipes and cigarettes, and more recently a number of studies have revealed that the smoking habit may have been responsible for the increase in the incidence of cancer and may have an undesirable effect on the life span as well as on the intelligence and stamina of the human race. The desire to cut down or entirely to refrain from smoking has become a problem of international importance, yet many find it difficult to dispense with the tobacco habit.

It is the consensus of opinion that a large proportion of the smokers find it necessary to make use of cigarettes and the like because of the relief which it supplies to nervous strain by giving the individual something to do with his hands and the like, thereby to enable the individual to acquire poise and comfort. Others find that smoking a cigarette and the like is desirable from the standpoint of sociability as well as for poise and while such uses do not satisfy an internal desire in the body function, yet most smokers are loath to give up these crutches upon which they have relied for pleasure and sociability.

It is an object of this invention to provide a cigarette which enables these people to retain all of the advantages derived from the use of cigarettes without the harmful effects that result from smoking.

More specifically, it is an object of this invention to provide cigarettes and the like in which the passage of smoke through the end thereof is blocked to prevent passage into the mouth, yet the cigarette lights and continues to burn slowly as a normal cigarette and supplies the appearance, feel and sensations of a normal cigarette to provide the poise and sociability which many people derive from smoking.

These and other objects and advantages of this invention will hereinafter appear and for purposes of illustration, but not of limitation, an embodiment of this invention is shown in the accompanying drawing in which—

Figure 1 is a perspective view of a hand holding a cigarette embodying features of this invention in a normal manner;

Figure 2 is a perspective view of a cigarette embodying features of this invention, and

Figure 3 is a perspective view partially in section of a portion of the cigarette shown in Figure 2.

In accordance with the practice of this invention, a cigarette having the appearance of a normal cigarette on the market today is provided by packing a cylinder 10 of paper and the like combustible material with tobacco 11 to fill the cylinder throughout the length thereof except for a short end portion 12 at the stem adapted to be inserted into the mouth. This end portion 12 is packed

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with a block 13 or other packing which provides the desired stiffness but which is impervious substantially completely to resist the passage of smoke through the end of the cigarette into the mouth. Such block or packing may be formed of cellulosic fibers, cotton linters, paper wadding, or other packing material compressed into a cylindrical rod through which an air stream cannot be drawn. Instead of cellulosic or other fibers, other materials may be used such as a foamed plastic preferably formed with unconnected cells or other rolled or molded substances and materials capable of appearing as a filter or tobacco ordinarily used in cigarettes but which resists the passage of an air stream endwise longitudinally there-through.

Since an air stream cannot be drawn freely through the stem of the cigarette in the usual manner, it becomes necessary to embody means in the tobacco packed or rolled therein for causing ignition of the tobacco in response to being lit by a match, lighter or other flame, or from another glowing cigarette and which will also cause the tobacco in the cigarette to burn slowly from the lit end to the base in the manner of a cigarette which is being smoked in the normal manner.

To provide for even burning without supplying the draft believed necessary to keep the cigarette from going out, the tobacco is treated prior to being packed in the paper sheet with a material such as potassium or sodium nitrate and mixtures thereof or other similar strongly oxidizing materials which tend to support combustion and which cause an even and steady glow when present in small amounts evenly distributed throughout the tobacco.

For this purpose, the tobacco before being packed is wet with a 2 percent solution of potassium nitrate. Amounts less than 2 percent can be used in solution but the desired burning rate is not achieved when the concentration of the treating solution is less than 0.4 percent by weight of potassium nitrate and the burning rate becomes excessive almost to the point of ignition when the tobacco is treated with a solution greater than 4 percent by weight.

Instead of wetting the tobacco as by means of a spray, soaking or the like with the solution of potassium nitrate or other suitable strong oxidizing agent, the potassium nitrate or sodium nitrate may be incorporated into the packing of tobacco in the form of finely divided crystals blended for uniform distribution with the tobacco prior to packing. When incorporated as crystals, it is best to limit the concentration to between 0.2 to 2.0 percent by weight of potassium nitrate in the tobacco. Best results have been secured with the use of 1 percent by weight potassium nitrate based upon the tobacco.

In manufacture, the cigarette may be prepared in the normal manner by rolling the paper with the plug 13 in the stem end and the granules or particles of treated tobacco packed in the remainder throughout the length of the cylinder formed of cigarette paper.

When compounded in the manner described and rolled into a cigarette having a block or plug in the stem end thereof, the cigarette that is formed looks like a cigarette, lights like a cigarette, glows like a cigarette, burns like a cigarette, yet smoke cannot be drawn from the cigarette into the mouth, thereby to enable the cigarette to be held in one's hand 14 like an ordinary cigarette and which can be raised to the mouth like a cigarette to provide all of the poise and sociability normally desired from a cigarette without being subject to any of its undesirable medical and health hazards.

It will be understood that changes may be made in the details of construction, formulation and treatment without departing from the spirit of the invention, especially as defined in the following claims.

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I claim:

1. A cigarette comprising an elongate cylindrical shell of a combustible material, a substantially cylindrical smoke impervious plug completely filling one end portion of the shell and completely blocking communication therealong to prevent passage of a gaseous stream endwise there-through, and tobacco filling the remainder of the shell in which the tobacco contains an oxidizing agent in uniform distribution therewith in amounts to maintain a uniform slow burning rate of the tobacco without reliance upon a draft of air being drawn through the cigarette.

2. A cigarette comprising a paper shell in the form of an elongate cylinder, a substantially cylindrical smoke impervious plug completely occupying and closing one end portion of the shell and completely blocking communication therealong for preventing passage of a gaseous stream longitudinally therethrough, cut tobacco filling the remainder of the shell, and an oxidizing agent present in combination with the tobacco in amounts to maintain a uniform slow burning rate of the tobacco independent of any current of air passing therethrough.

3. A cigarette as claimed in claim 2 in which the plug in the end portion of the shell comprises a packing formed of paper.

4. A cigarette as claimed in claim 2 in which the plug in the end portion of the shell comprises a packing formed of cellulose fibers.

5. A cigarette as claimed in claim 2 in which the plug in the end portion of the shell comprises a packing formed of foamed plastics.

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6. A cigarette as claimed in claim 2 in which the oxidizing agent comprises a metal nitrate present in amounts ranging from 0.2 to 4.0 percent by weight.

7. A cigarette as claimed in claim 2 in which the tobacco has been treated by wetting the cut tobacco with a solution containing 0.4 to 4.0 percent by weight of the metal nitrate.

8. A cigarette as claimed in claim 2 in which the oxidizing agent is present in the form of finely divided crystals uniformly distributed throughout the tobacco in amounts ranging from 0.2 to 2.0 percent by weight.

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