

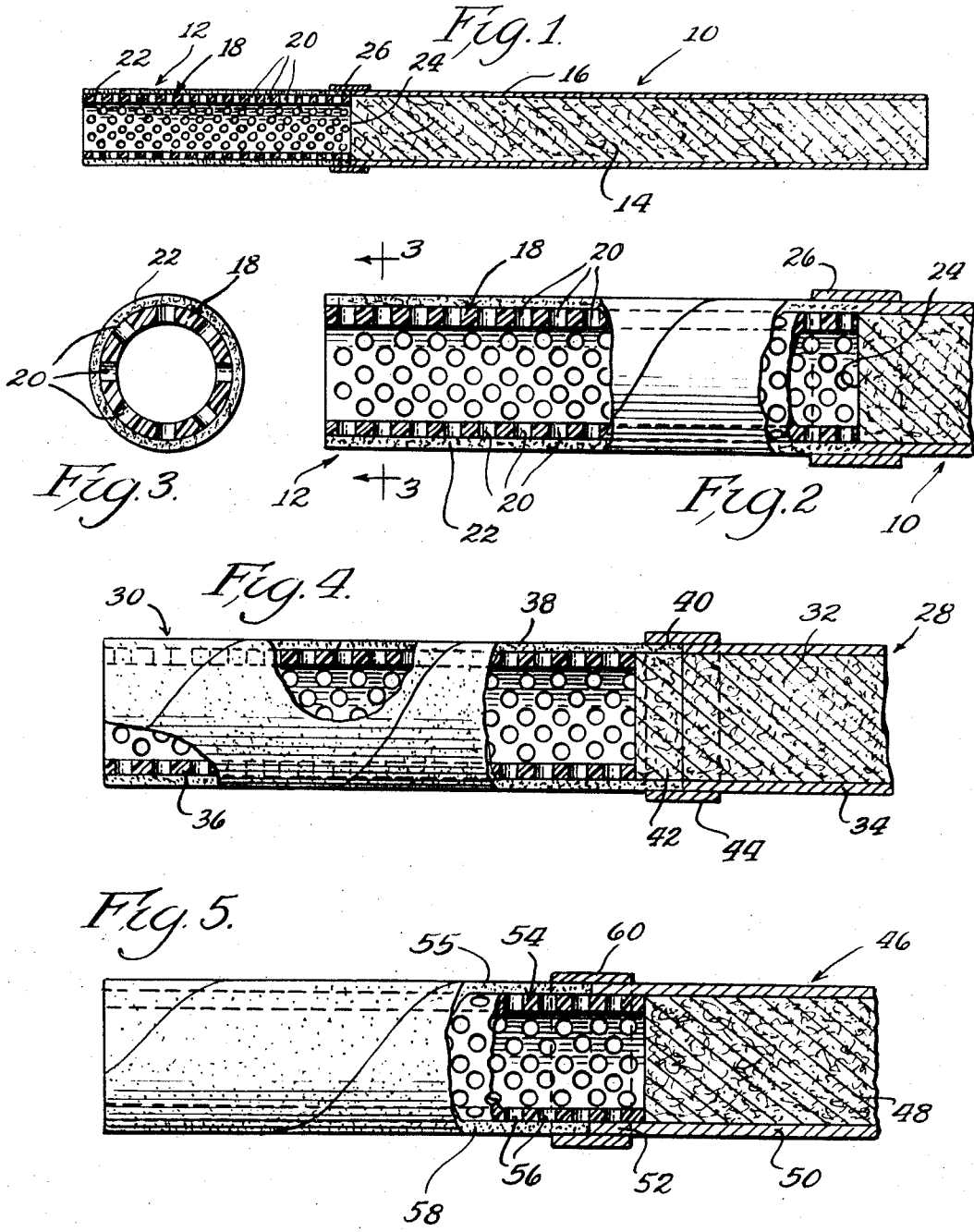
Sept. 30, 1969

M. J. DOPPELT

3,469,584

CIGARETTE

Filed Feb. 9, 1967



Inventor  
Max J. Doppelt  
By Max R. Kraus  
Atty.

1

3,469,584  
CIGARETTE

Max J. Doppelt, 1920 W. Sunnyside Ave.,  
Chicago, Ill. 60640

Filed Feb. 9, 1967, Ser. No. 614,974

Int. Cl. A24d 1/04

U.S. Cl. 131-10

1 Claim

## ABSTRACT OF THE DISCLOSURE

A cigarette having a tobacco section and a mouthpiece section, with the mouthpiece section formed of hollow tubular member provided with a plurality of circumferentially spaced openings or perforations, with a paper or the like covering the tubular member and openings or perforations, which paper or the like is porous and absorbent and permits outside air to be drawn into the tubular member through said covered openings to admix with the smoke drawn into the tubular member for the purpose of reducing the quantity of particulate or tar and nicotine and providing a cooler smoke.

As is well-known, the smoking of cigarettes produces a particulate matter which is commonly called "tar," and also produces a nicotine, both of which are injurious to the health of the smoker. Various attempts have been made to reduce the particulate matter or tar and the nicotine, such as, for example, the use of various filters between the tobacco end of the cigarette and the other end which is inserted in the mouth. However, such filters and the various means used have not appreciably caused any significant reduction in the quantity of particulate matter or tar and the nicotine reaching the mouth of the smoker. The object of the present invention is to provide a cigarette in which the particulate matter (tar) is considerably reduced from that produced by the cigarettes now on the market, whether they be filtered or unfiltered. This invention also results in a reduction of the nicotine.

This invention also produces a cigarette smoke which commingles with the air drawn into the cigarette so that the smoke reaching the smoker's mouth is considerably cooler than is possible with conventional cigarettes. It reduces or eliminates the usual "biting" effect produced in the smoking of conventional cigarettes and produces a smoke which is relatively mellow and mild. With this invention cool air is drawn into the mouthpiece section of the cigarette along with the smoke from the cigarette and this cools the smoke and creates an immediate condensation of particulate matter in the mouthpiece section. The paper covering is also absorbent. The absorbent paper over the tubular member helps absorb the tar and particulate and reduces considerably the amount of tar or particulate matter which would normally enter the mouth with the smoke.

Another object of this invention is to provide a cigarette with a tubular unobstructed mouthpiece section between the tobacco end and the end portion which is put in the mouth so that the smoker gets the benefit of the same taste as he would if his mouth were on the tobacco end of the cigarette.

Other objects will become apparent as this description progresses.

In the drawings:

FIG. 1 is a central longitudinal sectional view of the cigarette forming this invention.

FIG. 2 is an enlarged sectional view, showing particularly the mouthpiece section of the cigarette shown in FIG. 1.

FIG. 3 is a section view taken on lines 3-3 of FIG. 2.

FIG. 4 is a view of a cigarette of a modified construc-

2

tion in which the paper or the like surrounding the mouthpiece section overlaps the inner end of the tobacco portion, and

FIG. 5 is a view of a further modification in which the inner end of the tubular member is inserted into the inner end of the tobacco portion of the cigarette.

Referring first to the embodiment shown in FIGS. 1 to 3 inclusive, the cigarette comprises a front portion which is the tobacco section and is generally designated by the numeral 10, and a rear portion which is the mouthpiece section and is generally designated by the numeral 12. The tobacco section 10 of the cigarette consists of the tobacco 14 contained within a non-porous paper wrapping 16 which is of conventional construction commonly used in the manufacture of present-day cigarettes.

The rear portion or mouthpiece section 12 of the cigarette includes a hollow tubular member 18 which may be made of plastic, cardboard, or the like, and which is provided with a plurality of circumferentially spaced openings or perforations 20. The spaced openings or perforations 20 are circumferentially positioned on said tubular member substantially the entire length thereof. Suitably secured to the outside of the hollow tubular member 18 is a sheet of paper or the like designated by the numeral 22. This paper is specially made from natural fibers and is both porous and absorbent. While the paper 22 covers the openings or perforations 20 it does not prevent the cool air from being sucked or drawn into the interior of the tubular member 18 through said perforations.

The inner or rear end 24 of the tobacco section 10 of the cigarette is positioned adjacent and contiguous to the front of tubular member 18, as best shown in FIGS. 1 and 2, and the two are joined or connected together by a band 26 having suitable adhesive characteristics. The diameter of the tubular member 18 and the paper 22 around it is equal to that of the diameter of the tobacco section 10 so that when the band 26 is adhesively secured to both the tobacco section 10 and the mouthpiece section 12 it overlaps a portion of each and joins them together as an integral unit to form the cigarette.

The modification shown in FIG. 4 includes a tobacco section 28 and a mouthpiece section 30. The tobacco section comprises the tobacco 32 enclosed within a wrapper 34, however, the wrapper 34 around the tobacco terminates short of the inner end of the tobacco 32, as best seen in FIG. 4. The hollow tubular member 36 of the mouthpiece section 30 is identical to the tubular member 18 with the spaced openings therein. The porous and absorbent paper 38 surrounding the tubular member 36 extends beyond the front end of the tubular member 36, as indicated by the numeral 40, and forms a sleeve and said paper sleeve 40 encompasses the inner uncovered tobacco end 42. A band 44 having suitable adhesive overlaps the covering 34 and the sleeve 40 and unites the two sections 28 and 30 as an integral unit.

The modification shown in FIG. 5 comprises the tobacco section 46 containing the tobacco 48 within the conventional paper wrapping 50. In this embodiment the paper wrapping 50 extends rearwardly beyond the inner end of the tobacco portion. Said paper wrapping extension is designated by the numeral 52. The hollow tubular member 54 of the mouthpiece section has spaced openings 56 and is covered with a porous and absorbent paper 58, except that the front end of the tubular member 54 adjacent the rear end of the tobacco section remains uncovered so that the front portion of the tubular member may be inserted into the rear end 52 of the tobacco section 46, which forms a sleeve to enclose the front end of the tubular member 54. A band 60, similar to that pre-

viously described and having adhesive characteristics overlaps the paper of the tobacco section and that of the mouthpiece section to unite the two sections.

The tubular member of the mouthpiece section in all of the embodiments is approximately 1¼ inches in length, therefore, when a person has the cigarette in his mouth there is no contact with the tobacco and the tobacco end of the cigarette would be spaced approximately 1¼ inches from the rear end of the mouthpiece section. When the cigarette is lighted and is being smoked, cool air is sucked or drawn into the tubular member from the outside of the tubular member and said air passes through the porous and absorbent paper around the tubular member and through the perforations or openings 20 and into the inside of the tubular member. In the tubular member the cool outside air commingles with the smoke which is likewise drawn into the tubular member from the tobacco section. The air drawn into the tubular member through the openings 20 being cooler than the smoke causes a speedy condensation. The condensation is heavier than the smoke and therefore the particulate matter (tar) drops from the smoke stream and clings to the inner wall of the tubular member and is also absorbed by the absorptive covering or paper 22 (or 38 and 58 in FIGS. 4 and 5) over the tubular member. This produces a dry smoke and substantially reduces the quantity of tar and/or particulate matter which is objectionable to cigarette smokers and is the cause of various physical ailments which are induced by smoking. This invention also reduces the quantity of nicotine produced by the cigarette. The mouthpiece section of the cigarette absorbs and/or retains the tar and nicotine and thereby prevents it from reaching the smoker's mouth. The smoke that is drawn into the mouth is precooled in the tubular member and this results in a milder and mellower type of smoke.

Since there is no obstruction in the tubular member between the tobacco end of the cigarette and the mouth, the smoker gets the benefit of the same taste in his mouth as if he had his mouth on the tobacco end of the cigarette, and this taste is entirely different from the taste where a padded filter or obstruction is in the mouth end of the cigarette, as is common with a good many types of cigarettes on the market. No tobacco works its way into the tubular member and consequently no tobacco touches the mouth of the smoker.

The covering 22 (or 38 or 58) which surrounds the tubular member is as previously described and may comprise a paper or other material having porous and absorptive qualities. The said paper or covering surrounding the tubular member is permanently and integrally secured to the tubular member. Said paper or covering surrounding the tubular member should be treated to make it moisture-proof so that when the tubular end of the mouthpiece section is in the person's mouth the covering paper does not disintegrate or stick to the smoker's lips. Said paper may be chemically processed, for example, the paper may be coated or covered with silicone and its several solvents.

Various tests have been made by a reputable and well-

recognized testing laboratory and these tests show that with the use of this invention the quantity of particulate or tar is substantially reduced as compared to the quantity of particulate or tar produced by present-day cigarettes. There is also an appreciable reduction of nicotine by the use of a cigarette formed in accordance with this invention.

This invention results in economies both as to the materials used in the manufacture of cigarettes and in the manner of manufacturing the cigarettes.

It will be understood that this invention may be used in connection with cigars, wherein the perforated tubular member covered with a porous and absorbent paper hereinbefore described is secured to the inner (rear) end of the cigar so that it becomes a part of the cigar, as it does with the cigarette herein described, and the term "cigarette" includes "cigar."

It will be understood that various changes and modifications may be made from the foregoing without departing from the spirit and scope of the appended claims.

What is claimed is:

1. A cigarette comprising a tobacco section and a mouthpiece section, said tobacco section having a non-porous wrapping around the tobacco, said mouthpiece section comprising a hollow tubular member provided with a plurality of circumferentially spaced openings along substantially the entire length thereof, the outside diameter of said tubular member being substantially equal to the diameter of said tobacco section and constituting an extension thereof and a non-perforated porous and absorbent covering surrounding said tubular member and said openings in abutting engagement with said non-porous wrapping, and means sealing said abutting engagement, said non-perforated porous and absorbent covering permitting the air to be drawn into said tubular member during smoking, in which the outside air drawn into the tubular member produces a rapid condensation which is heavier than the smoke entering the tubular member and in which the particulate matter drops from the smoke stream and clings to the inner wall of the tubular member and is also absorbed by the covering around the tubular member, said mouthpiece section having a diameter throughout substantially equal to the diameter of the tobacco section.

#### References Cited

##### UNITED STATES PATENTS

561,907	6/1896	Moonelis	-----	131—10
2,980,116	4/1961	Schur	-----	131—9

##### FOREIGN PATENTS

417,543	10/1934	Great Britain.
938,902	10/1963	Great Britain.

55 LUCIE H. LAUNDENSLAGER, Primary Examiner

U.S. Cl. X.R.

131—9, 10.5, 15, 261