

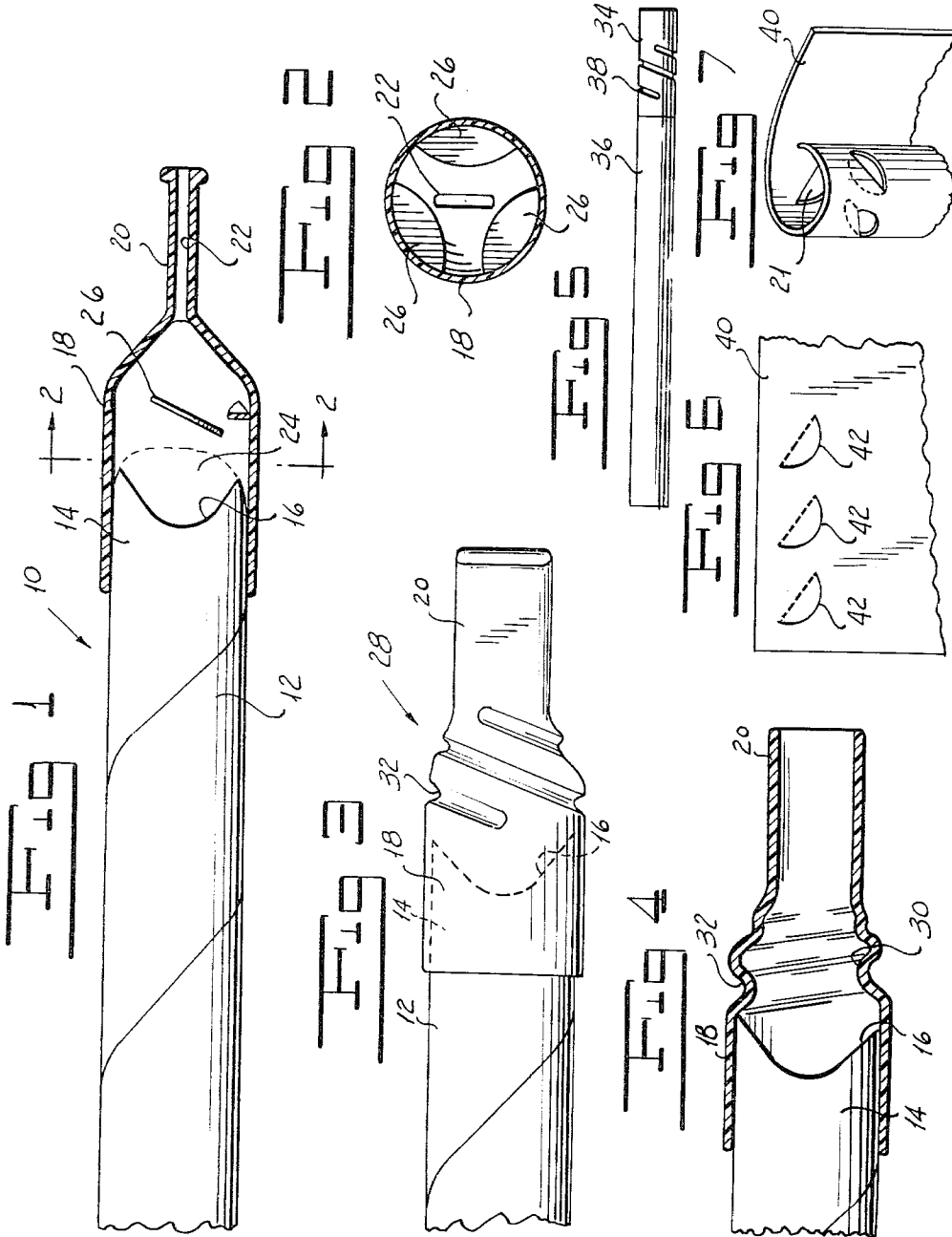
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SMOKE COOLING CIGAR AND TIP ASSEMBLY

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SMOKE COOLING CIGAR AND TIP ASSEMBLY

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1 Claim. (Cl. 131-9)

My invention relates to an assembly of a cigar and tip and more particularly to an improved assembly of a cigar or cigarette and tip which effectively cools the smoke drawn into the consumer's mouth.

As a cigar or cigarette is consumed the smoke drawn therefrom becomes hotter and the article may be disposed of by the user as unsatisfactory before it is consumed to the degree intended. Thus, one of the most desirable characteristics of a smoke such as a cigar or a cigarette is that it give a "cool" smoke. Some attempts have been made in the prior art to provide cigars and cigarettes with tips which cool the smoke in the course of its passage from the article to the smoker's mouth. Either these tips are not effective or they are extremely complicated for the result achieved. Owing to their complicated nature they are so bulky and cumbersome as to be too inconvenient and unsightly to be salable. For the same reason they are too expensive to manufacture to make their use practicable for relatively inexpensive articles such as cigars and cigarettes. Other tips are so constructed that drawing smoke therethrough is extremely difficult.

I have invented an assembly of a cigar or a cigarette and tip which overcomes the defects of tips of the prior art pointed out above. My assembly is simple and yet effectively cools smoke drawn from the article into the user's mouth. It is inexpensive to construct. It is not excessively cumbersome or bulky. My cigar and tip is inexpensive to manufacture. Rather than detracting from the appearance of the cigar my tip actually enhances the appearance of the article being sold. Smoke may be drawn through my tip with relative ease.

One object of my invention is to provide an improved cigar and tip assembly which effectively cools smoke drawn from the cigar into the smoker's mouth.

Another object of my invention is to provide an assembly for cooling smoke drawn from a cigar or cigarette into the smoker's mouth which is simple and compact.

Yet another object of my invention is to provide an improved cigar and tip assembly which is inexpensive to produce.

A still further object of my invention is to provide an improved cigar tip which does not detract from the appearance of the article being sold.

Still another object of my invention is to provide an improved cigar tip which cools the smoke and yet permits smoke to be drawn therethrough with relative ease.

Other and further objects of my invention will appear from the following description.

In general my invention contemplates the provision of a smokeable article having a recessed end and carrying a hollow tip fitting over the end to form a large smoke cooling chamber, so that the space velocity smoke drawn into the chamber is reduced. I provide the interior of the tip with circulating fins which cause the smoke to follow a spiral path as it is drawn through the chamber from the cigar or the like to the mouthpiece of the tip. These fins not only increase the period of time during which the smoke is in the cooling chamber but they also provide a large heat-exchange surface for cooling the smoke. My tip is equally applicable to cigars and to cigarettes.

In the accompanying drawings which form part of the instant specification and which are to be read in con-

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junction therewith and in which like reference numerals are used to indicate like parts in the various views:

FIGURE 1 is a fragmentary elevation of my improved cigar and tip assembly with the tip shown in section.

FIGURE 2 is a sectional view of my improved cigar and tip assembly taken along the line 2-2 of FIGURE 1.

FIGURE 3 is a fragmentary plan view of an alternate form of my improved cigar and tip assembly.

FIGURE 4 is a fragmentary sectional view of the form of my cigar and tip assembly shown in FIGURE 3.

FIGURE 5 is a plan view of my improved assembly of a cigarette and tip.

FIGURE 6 is a fragmentary view illustrating one step in the formation of an improved smoke tip.

FIGURE 7 is a fragmentary view illustrating another step in the formation of an improved smoke tip.

Referring now to FIGURE 1 one form of my improved cigar and tip assembly indicated generally by the reference character 10 includes a cigar 12 having an end 14 which is cut or otherwise provided with a recess 16. This recess 16 may have a curved cross-section or it may be cut so as to have a triangular cross-section.

The assembly 10 includes a tip having a hollow body 18 with a cross-sectional shape which conforms generally to the cross-sectional shape of the cigar 12 so that the tip can be applied to the end 14 of the cigar to permit the interior of the body 18 and the space provided by the recess 16 to form a relatively large chamber for the cooling of smoke. It will be appreciated that, owing to the end recess 16 the space velocity of smoke passing from the cigar into the recess is reduced.

The end of the tip remote from the cigar end 14 is formed with a mouthpiece 20 adapted to be gripped between the teeth or between the lips of the smoker. A passage 22 in mouthpiece 20 permits smoke from the inside of the body 18 to pass into the smoker's mouth as he draws on the mouthpiece 20. From the description of my assembly given thus far it will readily be apparent that the recessed or hollowed-out end 14 of the cigar 12 and the body 18 cooperate in a unique manner to form a smoke cooling chamber 24 which is relatively large for the size of the tip. It is to be noted further that this result is achieved without sacrificing any appreciable holding force between the body 18 and the tip 14. For purposes of illustration I have illustrated the portion of the end 14 which has been cut away in broken lines in FIGURE 1.

I provide the inside of the body 18 with a plurality of fins 26 which extend inwardly from the inner surface of the body 18 and at an acute angle to the axis of the body 18 into the path of smoke emanating from the end 14 of the cigar. As smoke passes from the end 14 of the cigar 12 toward the mouthpiece 20 it strikes the fins or baffles 26 which deflect the smoke to whirl the smoke by causing it to follow a generally spiral path through the body 18. This action achieves two desirable results. First, by causing the smoke to follow a relatively long spiral path rather than a path directly through the body 18 the time of passage of smoke from the end 14 to the mouthpiece 20 is appreciably increased to enhance the cooling effect of the chamber 24. In addition, these vanes or fins 26 provide increased heat conducting surface areas for the heat of the smoke to the external surface of my tip assembly.

It will readily be understood that while I have shown a form of my assembly in FIGURES 1 and 2 in which only three fins 26 are provided, I may employ as many fins or vanes 26 as are necessary to give optimum results. These fins or vanes may be formed in any suitable manner. For example, where the body 18 and

mouthpiece 20 are molded from plastic or formed from thin metal the baffles 26 may be integrally molded with the body 18. They may also be made as separate pieces and then adhered or otherwise affixed to the inner surface of the body 18 in any suitable manner.

Referring now to FIGURES 3 and 4, I have shown an alternate form of my cigar and tip assembly indicated generally by the reference character 28 in which I form the body 18 with a spiral baffle 30 on the inner surface thereof which appears as a spiral groove 32 around the outside of the body 18. It will readily be apparent that the spiral baffle 30 functions in a manner similar to the baffles 26 shown in FIGURE 1 to cause smoke passing from the end 14 to the mouthpiece 20 to follow a spiral path with a whirling motion and further provides an increased heat exchange surface. It is to be noted in connection with this form of my invention that the exterior spiral groove 32 formed by the inner spiral baffle 30 actually enhances the appearance of the finished article rather than detracting therefrom as is the case with tips of the prior art.

Referring now to FIGURE 5, I have shown a form of my tip 34 applied to a cigarette 36. Tip 34 has an inner spiral flute forming an outer spiral groove 38 which is apparent to the consumer. The flute-forming groove 38 may be provided in any suitable manner as by molding a plastic tip 34 or preferably in the case of a cigarette forming a relatively heavy tip paper with a suitable paper die and then rolling the tip to cause the groove 38 to assume the shape shown in FIGURE 5.

Referring now to FIGURES 6 and 7, I have illustrated a particularly expeditious method of forming the vanes such as vanes 26 in relatively heavy sheet material 40. In practicing this method I take a strip of the material 40 and, using a suitable die, I make a number of arcuate cuts 42 in spaced locations along the strip. When this has been done I next roll the strip 40 as shown in FIGURE 7 and in the course of this operation the fins 26 formed by the cuts 42 spring out from the surface of the strip toward the inside of the rolled tube. It will readily be apparent that the rolled tube can be held to the shape to which it has been rolled either by use of a suitable adhesive or by the cigarette paper or the like surrounding the tube. This method is especially adapted for use when an assembly of my tip and a cigarette is being made.

In the use of the form of my invention shown in FIGURES 1 and 2, as the smoker draws on the mouthpiece 20, the space velocity of smoke passing out of the end 14 of the cigar 12 into the chamber 24 and toward the mouthpiece 20 is reduced. When the smoke encounters the fins or baffles 26 it is caused to follow a spiral path as it moves through the body 18. Owing to this fact the time during which the smoke is in chamber 24 is increased so that the cooling effect of the chamber is greatly enhanced. Not only is this true but also the fins 26 provide a relatively large aggregate heat exchange surface. The manner of operation of the form of my invention shown in FIGURES 3 and 4 is substantially the same as that of the form of my invention shown in FIGURES 1 and 2. This embodiment has the additional advantage that rather than detracting from the appearance of the finished article it actually enhances it.

In use of my invention in connection with a cigarette as shown in FIGURE 5, the flute provided by the groove

38 functions to cause smoke travelling toward the smoker's mouth to follow a spiral path. In the method of making my tip shown in FIGURES 6 and 7 after cuts 42 have been made in the strip 40 it is rolled on itself to cause the fins 26 to spring toward the inside of the tube.

It will be seen that I have accomplished the object of my invention. I have provided an improved cigar and tip assembly which overcomes the disadvantages of tips of the prior art. My assembly is extremely simple for the result achieved thereby. It is neither complicated nor cumbersome. It is relatively inexpensive to manufacture. The cooling effect of my assembly is appreciably greater than the cooling effect of tips of the prior art intended to achieve this result. My tip permits smoke to be drawn therethrough with relative ease.

It will be understood that certain features and subcombinations are of utility and may be employed without reference to other features and subcombinations. This is contemplated by and is within the scope of my claim. It is further obvious that various changes may be made in details within the scope of my claim without departing from the spirit of my invention. It is, therefore, to be understood that my invention is not to be limited to the specific details shown and described.

Having thus described my invention, what I claim is:

A smoke cooling assembly including in combination an elongated burnable article of inhalable smoke producing material, said article having a tip end formed with a recess formed by said material, a narrow bit having an enlarged extension of generally cylindrical form adapted to receive said tip end of said smokeable article, said smokable article located at a point partway within said bit extension so as to define an expansion chamber bounded in front by said recess in said smokable article and in the rear by said reduced bit portion, the inner wall of said enlarged bit portion being provided with an integral spiral channel formed by a spiral groove in the wall of said enlarged bit portion serving to increase the turbulence of smoke drawn through said bit and to precipitate undesirable elements therefrom.

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