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C. P. CRAWFORD
FILTER FOR CIGARETTES
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2,728,346

FIG. 1

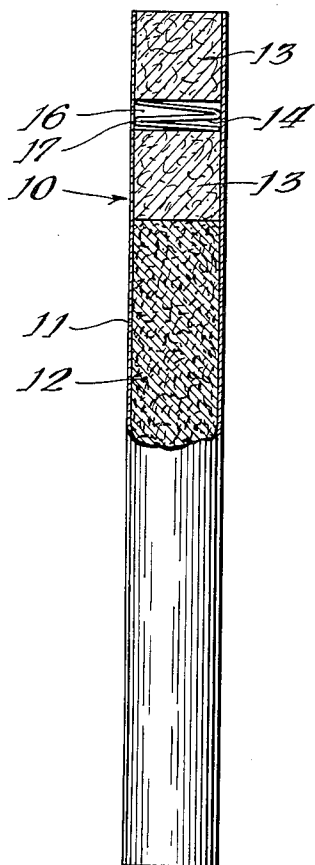


FIG. 2

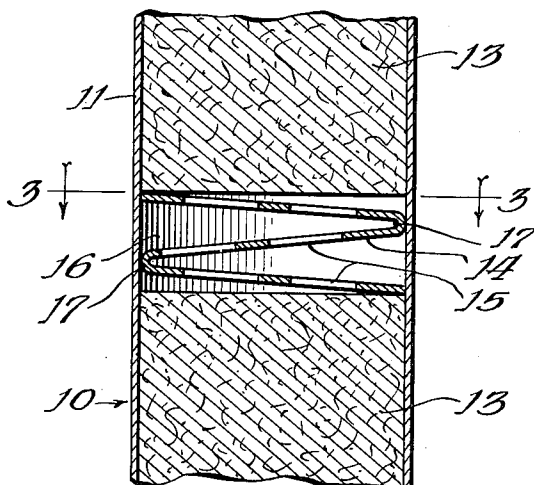
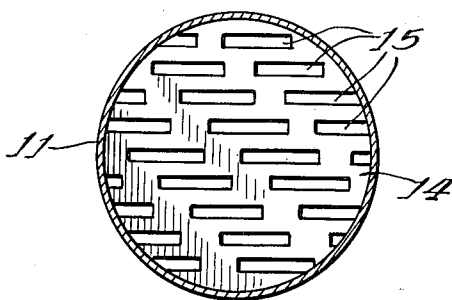


FIG. 3



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FILTER FOR CIGARETTES

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2 Claims. (Cl. 131-10)

My invention has for its object an inexpensive arrangement of filtering material whereby the injurious properties of tobacco can be quickly and easily removed.

Other objects of my present invention are to provide an improved tobacco filter whereby the smoke of cigarettes will be clarified by means of a filtering arrangement in an inexpensive and highly efficient manner.

All of the present forms used in cigarette filters today follow exactly the same pattern, the filters being made in one continuous piece to absorb the nicotine, tars, and other residues of the tobacco, as the smoke travels thru the cigarette and the filter.

The rapid accumulation of the harmful impurities of the tobacco, multiplying as it does, quickly condenses, forming a heavy clogged condition in the filter before even one quarter ($\frac{1}{4}$) of the cigarette has been smoked. The mass of foreign matter causes the cigarette not to draw in a free, easy flowing manner as it should flow. Moreover, the heat of burning tobacco and the smoke therefrom is increased by the excessive overloaded condition of the filter. Therefore, the increased temperature of the tobacco and the smoke caused by the clogged condition of the filter, not only destroys the fine flavor of the tobacco, but also creates a strong, bitter, rancid taste, definitely developing a straw-like flavor.

The various features of novelty whereby my invention is characterized will be hereinafter pointed out, with particularity in the claims, but, for a full understanding of the invention and its various objects and advantages, reference may be had to the following detailed description taken in connection with the accompanying drawings, wherein:

Figure 1 is an elevational view of a cigarette partly in section.

Fig. 2 is an enlarged fragmentary sectional view.

Fig. 3 is a section taken on line 3-3 of Fig. 2.

Referring now in detail to the drawings, 10 represents a cigarette as a whole, 11 is the cigarette paper, 12 is the tobacco, 13 are the cotton filters, 14 is a heavy relatively-stiff resilient absorbent tissue paper filter, 15 are the perforations in the tissue paper filter, 16 is the open chamber, and 17 are the bends in the tissue filter.

Referring to the drawings, 10 represents a cigarette as a whole, having conveniently located at one end two equal portions of cotton filtering material 13, separated by an open chamber 16, housing a central filter 14. The smoke from a lighted, burning cigarette travels thru the tobacco into the first portion or part of the filter 13, then thru the central filter 14, and on thru the second portion of the filter 13. The filtering material used can be made of cotton, light or heavy absorbent tissue paper or any other suitable filtering material supplying adequate cleansing

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properties required to remove the nicotine, tars and other harmful residues from tobacco smoke.

With a larger portion of the tobacco impurities being absorbed by the first portion of the filter 13, before passing into and thru the filter 14, housed in the open chamber 16, bends 17 in the second or central filter 14 formed like the letter N by folding the sheet 14 along lines generally transverse to the axis of the cigarette, absorb an additional portion of the tobacco impurities. The open chamber 16 being divided into four smaller chambers by the partitions of filter 14 forming angles with each other, provides an additional trap or depository for the nicotine, tars, and other residues of the tobacco smoke. The perforations 15 being staggered, a highly efficient filtering process ensues. The staggering of the perforations 15 also forms the means of breaking up the continuous flow of the smoke, instituting a cooling operation quickly lowering the temperature of the smoke.

This cooling of the smoke at the central portion of the filters permits the tobacco smoke to retain almost all of its fine flavor and taste. As the smoke has been purified and cooled before entering and passing thru the filter 13 located at the end part of the cigarette for the final filtering of the smoke, it will travel thru a clean, fresh filter to assist in keeping the fine flavor and taste of the tobacco smoke intact.

The triple filtering process so provided will eliminate that harsh, rancid, biting taste, now so prevalent in all of the present day one-solid piece of filtering material.

The filter 14, being resilient and formed like the letter N, provides a spacing and spring-like effect, creating an automatic expanding action to press filters 13 apart and at the same time keeping the wrapper taut, causing a continuous free passage for the flow of the smoke.

While I have illustrated and described with particularity only a preferred form of my invention, I do not desire to be limited to the exact details thus illustrated and described; but intend to cover all forms and arrangements that come within the definitions of my invention constituting the appended claims.

I claim:

1. A tobacco cigarette comprising a column of tobacco and a filter arranged end to end, and a wrapper surrounding said tobacco and filter, said filter consisting of two cylindrical, moisture-absorbing masses spaced apart from each other lengthwise of the cigarette, together with a resilient, perforated and moisture absorbing element positioned between said masses and pressing them apart and at the same time keeping the wrapper taut and said element consisting of a relatively stiff sheet folded along lines generally transverse to the axis of the cigarette and creating a plurality of partitions forming angles with each other.

2. A tobacco cigarette as set forth in claim 1, wherein the two masses of the filter are cotton fiber and the element between them is composed of tissue paper.

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