

US005144962A

## United States Patent [19]

Counts et al.

[11] Patent Number:

5,144,962

[45] Date of Patent:

Sep. 8, 1992

#### [54] FLAVOR-DELIVERY ARTICLE

[75] Inventors: Mary E. Counts; Mohammad R. Hajaligol, both of Richmond; Constance H. Morgan; Ulysses Smith, both of Midlothian; Francis M. Sprinkel, Glen Allen; Francis V. Utsch, Midlothian, all of Va.

[73] Assignee: Philip Morris Incorporated, New

York, N.Y.

[21] Appl. No.: 444,818

[22] Filed: Dec. 1, 1989

 [56] References Cited

U.S. PATENT DOCUMENTS

4,947,874 8/1990 Brooks et al. . 4,947,875 8/1990 Brooks et al. .

FOREIGN PATENT DOCUMENTS

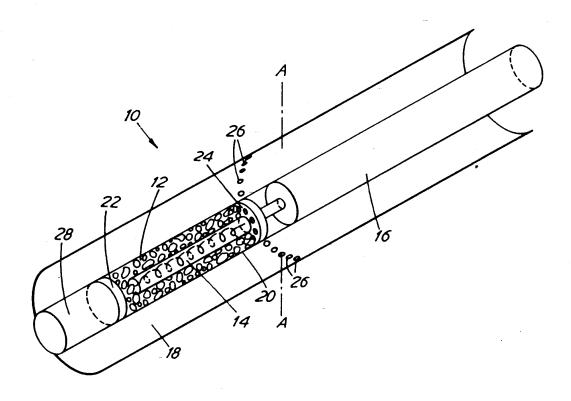
WO90/03224 4/1990 PCT Int'l Appl. .

Primary Examiner—V. Millin Attorney, Agent, or Firm—Jeffrey H. Ingerman

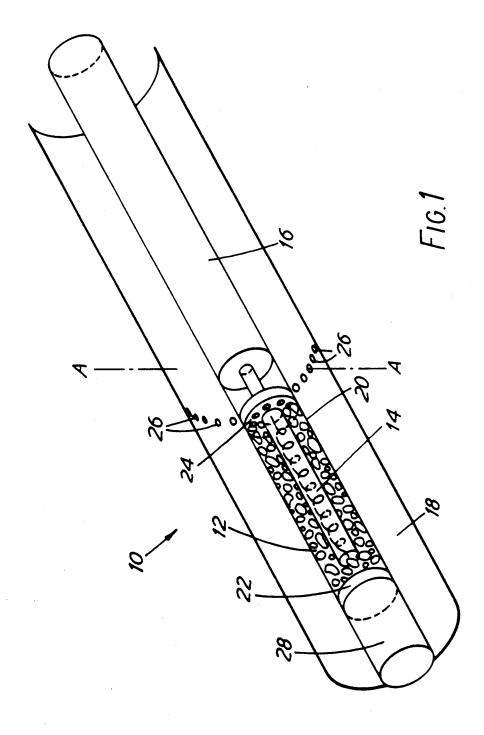
[57] ABSTRACT

Methods and apparatus for releasing flavor components from a flavor-generating medium using an electric heating element are provided. A non-combustion flavor-generating article uses electrical energy to power a heating element which heats tobacco or other flavor-ants. The flavor-generating medium is formed into a packed bed. Energy delivered to the heating element is regulated to maintain the flavor-generating medium at a relatively constant operating temperature to ensure a relatively constant release of flavor.

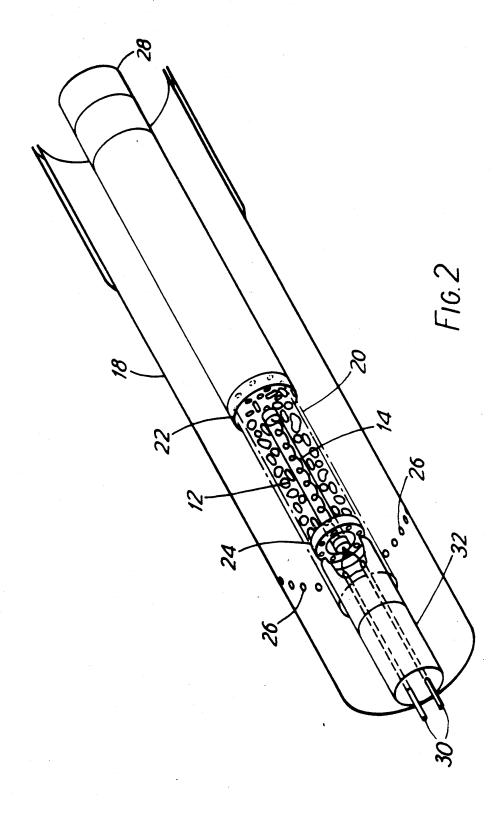
146 Claims, 9 Drawing Sheets



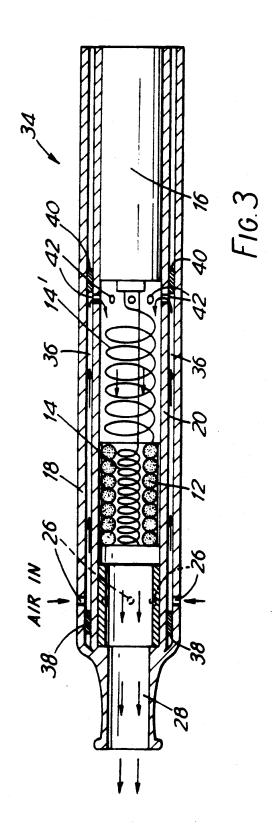


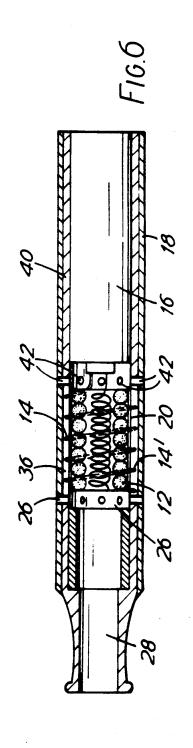


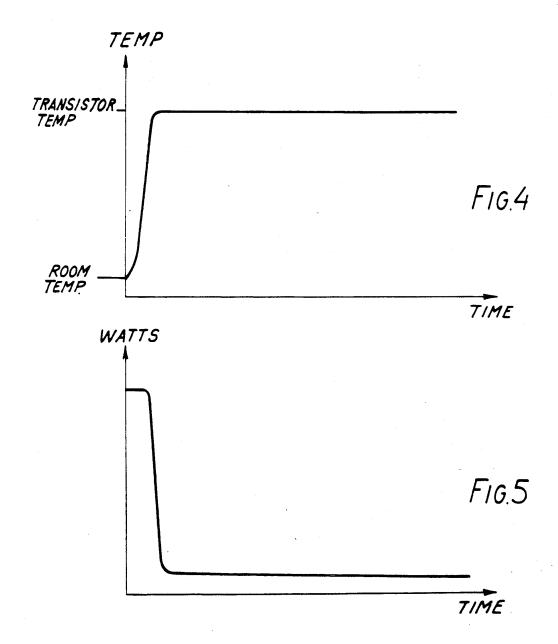
Sep. 8, 1992



5,144,962







# DOCKET A L A R M

# Explore Litigation Insights



Docket Alarm provides insights to develop a more informed litigation strategy and the peace of mind of knowing you're on top of things.

# **Real-Time Litigation Alerts**



Keep your litigation team up-to-date with **real-time** alerts and advanced team management tools built for the enterprise, all while greatly reducing PACER spend.

Our comprehensive service means we can handle Federal, State, and Administrative courts across the country.

### **Advanced Docket Research**



With over 230 million records, Docket Alarm's cloud-native docket research platform finds what other services can't. Coverage includes Federal, State, plus PTAB, TTAB, ITC and NLRB decisions, all in one place.

Identify arguments that have been successful in the past with full text, pinpoint searching. Link to case law cited within any court document via Fastcase.

## **Analytics At Your Fingertips**



Learn what happened the last time a particular judge, opposing counsel or company faced cases similar to yours.

Advanced out-of-the-box PTAB and TTAB analytics are always at your fingertips.

#### API

Docket Alarm offers a powerful API (application programming interface) to developers that want to integrate case filings into their apps.

#### **LAW FIRMS**

Build custom dashboards for your attorneys and clients with live data direct from the court.

Automate many repetitive legal tasks like conflict checks, document management, and marketing.

#### **FINANCIAL INSTITUTIONS**

Litigation and bankruptcy checks for companies and debtors.

### **E-DISCOVERY AND LEGAL VENDORS**

Sync your system to PACER to automate legal marketing.

