

PROVISIONAL APPLICATION FOR PATENT COVER SHEET

This is a request for filing a PROVISIONAL APPLICATION FOR PATENT under 37 C.F.R. § 1.53(c).

093005
U.S. PTO
01576

113264 U.S. PTO
60/722036

093005

Docket No.	021238-811	Type a plus sign (+) inside this box
------------	------------	--------------------------------------

INVENTOR(S)/APPLICANT(S)			
LAST NAME	FIRST NAME	MIDDLE INITIAL	RESIDENCE (CITY AND EITHER STATE OR FOREIGN COUNTRY)
Adams	John	M.	9398 Hartford Oaks Dr., Mechanicsville, VA 23116 CITIZENSHIP USA
Baggett, Jr.	James	D.	1825 Parkway Lane, Richmond, VA 23225 CITIZENSHIP USA
Crowe	William	J.	11120 Chalkley Road, Chester, VA 23831 CITIZENSHIP USA

Additional inventors are being named on the ONE separately numbered sheets attached hereto.

TITLE OF THE INVENTION (500 characters max)

ELECTRICAL SMOKING SYSTEM

CORRESPONDENCE ADDRESS

Buchanan Ingersoll PC
Including attorneys from Burns, Doane, Swecker & Mathis
Customer Number **2 1 8 3 9**
P.O. Box 1404
Alexandria, VA 22313-1404

UNITED STATES OF AMERICA

ENCLOSED APPLICATION PARTS (check all that apply)

- Specification/Claims/Abstract # of Pages 19 CD(s) Number
- Drawing(s) # of Sheets 5 Other (specify):
- Total Pages in Spec/Drawings 24
- Application Data Sheet. See 37 CFR 1.76

METHOD OF PAYMENT OF FILING FEES (check one)

FILING FEE AMOUNT

- Applicant claims small entity status. See 37 C.F.R. § 1.27.
- A check or money order is enclosed to cover the filing fees.
- The Director is hereby authorized to charge any deficiency in filing fees or credit any overpayment to **Deposit Account No. 02-4800**. This paper is submitted in duplicate.
- Payment by credit card. Form PTO-2038 is attached.

Filing Fee (1005)	\$ 200.00
Total Page Fee (101+ pages)	
Total Fee	\$ 200.00
Small Entity - subtract 50%	\$ 0.00
Total App. Filing Fee	\$ 200.00

The invention was made by an agency of the United States Government or under a contract with an agency of the United States Government.

- No.
- Yes, the name of the U.S. Government agency and the Government contract number are:

SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

SIGNATURE Peter K. Skiff

DATE September 30, 2005

TYPED or PRINTED NAME Peter K. Skiff
(703) 836-6620

Registration No. 31,917
(if appropriate)

**PROVISIONAL APPLICATION FOR
UNITED STATES LETTERS PATENT**

FOR

ELECTRICAL SMOKING SYSTEM

by

**John M. ADAMS
9398 Hartford Oaks Dr.
Mechanicsville, VA 23116**

**James D. BAGGETT, Jr.
1825 Parkway Lane
Richmond, VA 23225-7419**

**William J. CROWE
11120 Chalkley Road
Chester, VA 23831**

**John R. HAIRFIELD, Jr.
13800 Rockhaven Drive
Chester, VA 23836**

**John R. HEARN
14204 Flag Tail Way
Midlothian, VA 23112**

**Steven J. LARSON
8619 Den Ark Drive
Richmond, VA 23535**

**Robert E. LEE
11802 Prince Regent Place
Richmond, VA 23238**

**Robert L. RIPLEY
2427 Manakintown Ferry Road
Midlothian, VA 23113**

**Brett W. STEVENSON
3938 Lake Hills Road
Richmond, VA 23234**

**Susan E. WRENN
12130 Ivy Mill Road
Chesterfield, VA 23832**

**Zuyin YANG
1413 Goswick Ridge Road
Midlothian, VA 23114**

**Attorney's Docket No. 021238-811
PM 2228B (D 2039)
BUCHANAN INGERSOLL PC
P.O. Box 1404
Alexandria, Virginia 22313-1404
(703) 836-6620**

ELECTRICAL SMOKING SYSTEM

FIELD OF THE DISCLOSURE

[0001] This disclosure relates generally to tobacco smoking systems using electrical energy rather than combustion. More particularly, the smoking system disclosed here generates an aerosol through conductive and/or convective combustionless heating of tobacco by an electrical heating source.

SUMMARY

[0002] A quantity of tobacco is placed in contact with a heating system. Passageways are provided for air to move through the heating system and the tobacco. The heating system raises the temperature of the tobacco to the range of about 150 to about 220°C by direct contact with the tobacco, by convective heat transfer to the tobacco, and/or by heating the air which in turn heats the tobacco. The heated tobacco releases volatiles which subsequently cool to form an aerosol for delivery from the heating system.

[0003] The tobacco may have a variety of shapes including without limitation a pillow shape, a generally rotationally symmetric shape, a generally cylindrical plug, a generally cylindrical shell, a generally circular disk, a plug shape, a pellet shape, a cigarette shape, and the like.

[0004] The heating system may also have a variety of configurations. By way of example, and without limitation, the heating system may include a heating element such as a generally cylindrical heated shell with both ends open, a generally cylindrical heated shell with a closed end, an insertable heating element, a heated disk, a pair of heated disks, or the like. Such heating elements may be fabricated from an electrically resistive material which heats when electrical current passes through it. Such heating

-2-

elements may also include either internal or external heating devices such as wires. Air may pass axially through the tobacco and the heating system. Alternatively, air may enter the tobacco radially and exit substantially axially. In addition, the heating system may be arranged such that air is preliminarily heated before being directed into the tobacco.

[0005] If desired, a mouthpiece, with or without a filter, may be used with the heating system both to define a cooling region for the tobacco volatiles, and to direct the resulting aerosol to the consumer.

BRIEF DESCRIPTION OF THE DRAWINGS

[0006] The accompanying drawings depict several embodiments of the electrically heated tobacco smoking system of this disclosure. In the accompanying drawings, like reference numerals are applied to like elements.

[0007] FIG. 1 is a cross-sectional view of an electrically heated tobacco smoking system.

[0008] FIG. 2 is a cross-sectional view of the electrically heated tobacco smoking system taken along the line 2-2 of FIG. 1.

[0009] FIG. 3 is a cross-sectional view of another embodiment of the electrically heated tobacco smoking system.

[0010] FIG. 4 is a cross-sectional view taken along the line 4-4 of FIG. 3.

[0011] FIG. 5 is a cross-sectional view of the electrically heated smoking system of FIG. 1 including a mouthpiece.

[0012] FIG. 6 is an end view of the electrically heated tobacco smoking system of FIG. 5.

[0013] FIG. 7 is a cross-sectional view of a third embodiment of the electrically heated tobacco smoking system.

[0014] FIG. 8 is an end view of the electrically heated tobacco smoking system of FIG. 7.

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.