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United States Patent [19]
Deevi et al.

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[54] METHOD OF MANUFACTURING AN ELECTRICAL HEATER
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[73] Assignee: Philip Morris Incorporated, New York, N.Y.

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[21] Appl. No.: 450,840
[22] Filed: May 25, 1995

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Related U.S. Application Data

[62] Division of Ser. No. 380,718, Jan. 30, 1995, Pat. No. 5,666,978, and a division of Ser. No. 118,665, Sep. 10, 1993, Pat. No. 5,388,594, and a continuation-in-part of Ser. No. 943,504, Sep. 11, 1992, Pat. No. 5,505,214.

[51] Int. Cl.⁶ H05B 3/00; H05B 3/10; H01C 1/01

[52] U.S. Cl. 29/611; 219/537; 219/539; 219/552; 338/260; 338/319; 338/320

[58] Field of Search 29/611; 219/537, 219/539, 543, 552, 553; 338/203, 260, 319, 320

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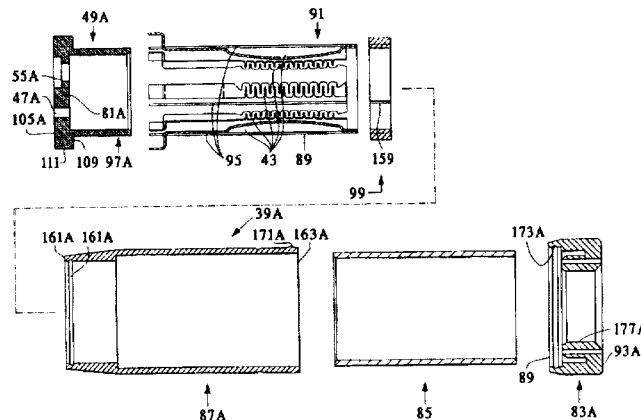
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[57] ABSTRACT

A smoking system is provided in which a replaceable cigarette containing tobacco flavor material is electrically heated by a set of electrical heater elements contained within a lighter to evolve tobacco flavors or other components in vapor or aerosol form for delivery to a smoker. The cigarette and lighter are adapted to provide air flow patterns through the smoking system such that air flows transversely into the cigarette. Such patterns improve aerosol and flavor delivery to the smoker and reduce the condensation of residual heater-region vapor/aerosol in the smoking system.

14 Claims, 15 Drawing Sheets



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Fig. 1

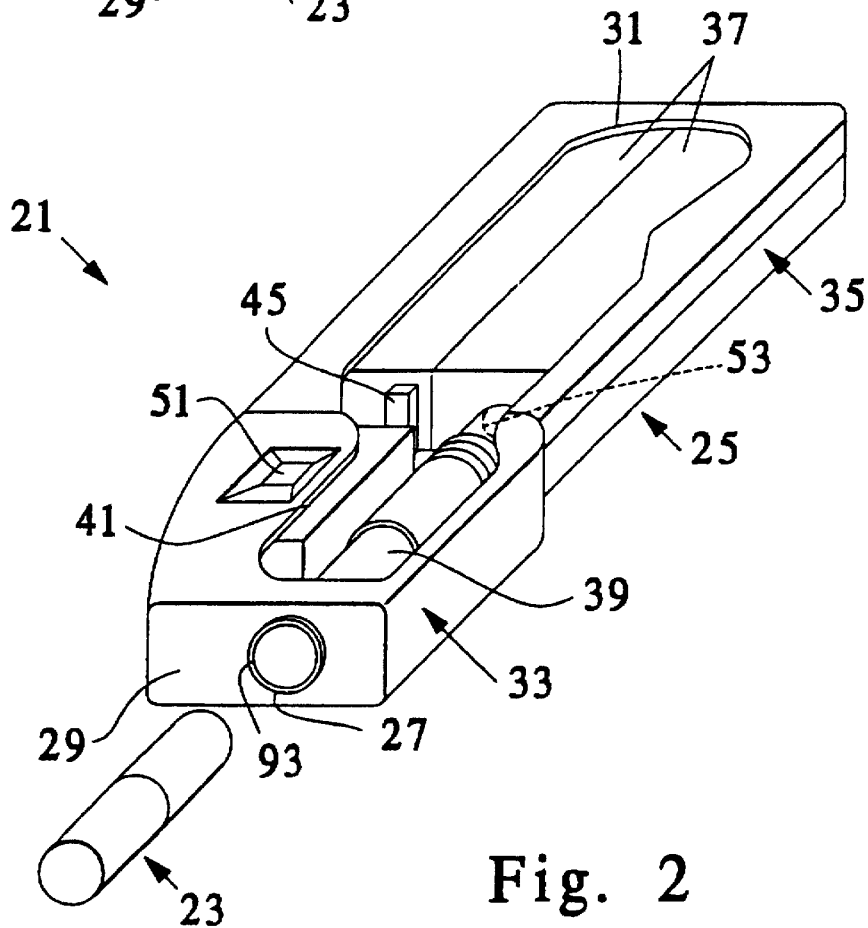
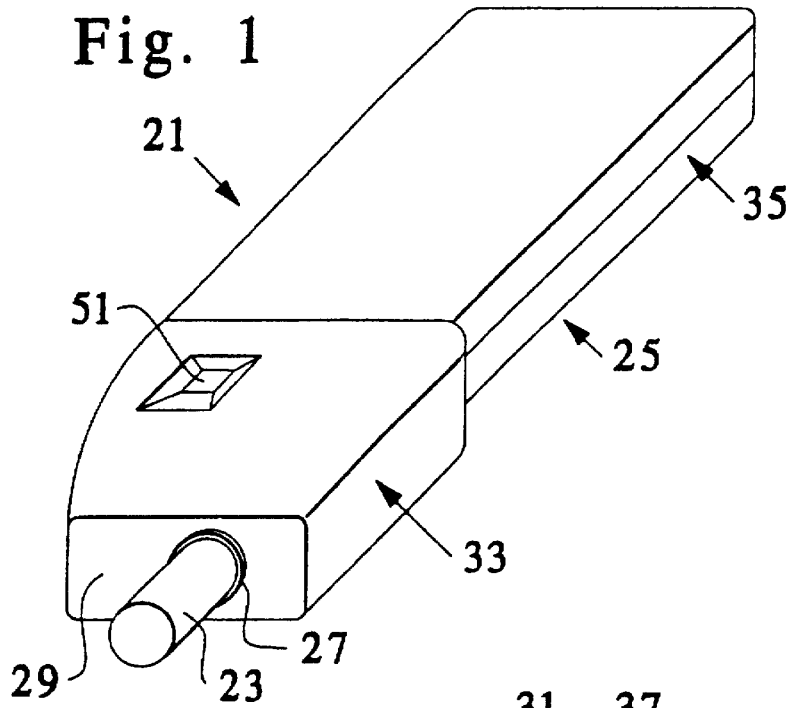


Fig. 2

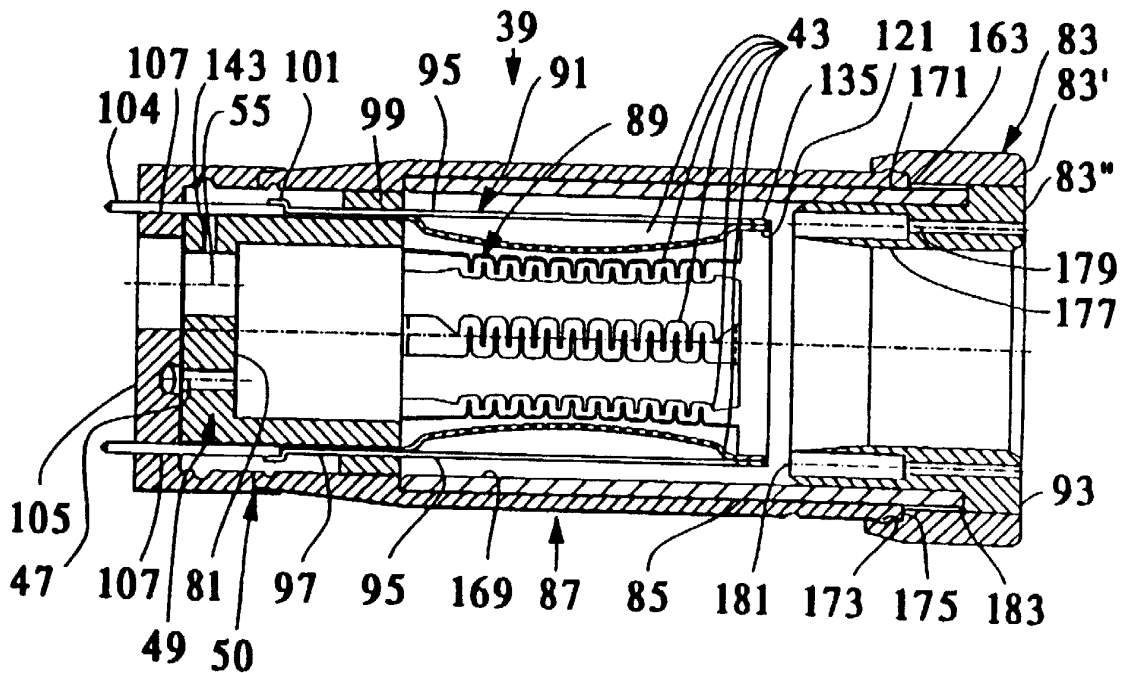


Fig.3A

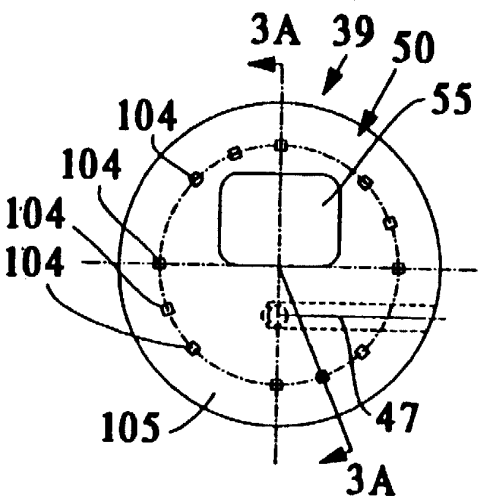


Fig.3B

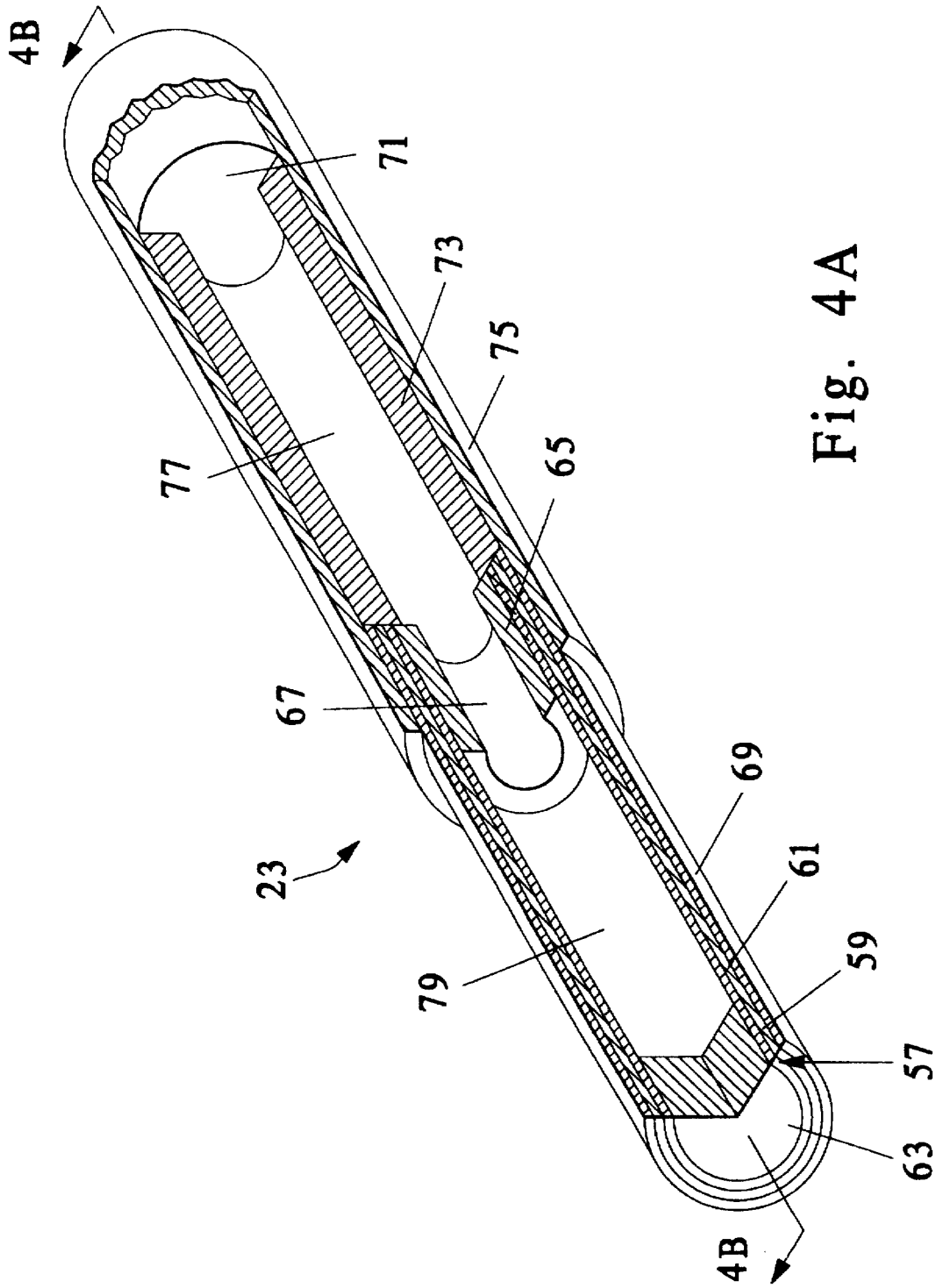


Fig. 4A

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