

EXHIBIT 4

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Paper 32
Date: March 30, 2022

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

PHILIP MORRIS PRODUCTS, S.A.,
Petitioner,

v.

RAI STRATEGIC HOLDINGS, INC.,
Patent Owner.

IPR2020-01602
Patent 9,901,123 B2

Before MICHELLE N. ANKENBRAND, JO-ANNE M. KOKOSKI,
and ELIZABETH M. ROESEL, *Administrative Patent Judges*.

KOKOSKI, *Administrative Patent Judge*.

JUDGMENT
Final Written Decision
Determining No Challenged Claims Unpatentable
35 U.S.C. § 318(a)

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I. INTRODUCTION

We have jurisdiction to conduct this *inter partes* review under 35 U.S.C. § 6, and issue this Final Written Decision pursuant to 35 U.S.C. § 318(a). For the reasons that follow, we determine that Philip Morris Products, S.A. (“Petitioner”) has not shown by a preponderance of the evidence that claims 1–7, 9, 11–19, 21, and 23–26 (“the challenged claims”) of U.S. Patent No. 9,901,123 B2 (“the ’123 patent,” Ex. 1001) are unpatentable.

A. Procedural Background

Petitioner filed a Petition to institute an *inter partes* review of claims 1–7, 9, 11–19, 21, and 23–26 of the ’123 patent. Paper 2 (“Pet.”). RAI Strategic Holdings, Inc. (“Patent Owner”) filed a Preliminary Response. Paper 6. With Board authorization, Petitioner filed a Preliminary Reply (Paper 7), and Patent Owner filed a Preliminary Sur-reply (Paper 8). Pursuant to 35 U.S.C. § 314(a), we instituted an *inter partes* review of claims 1–7, 9, 11–19, 21, and 23–26 on the grounds advanced in the Petition. Paper 9 (“Institution Decision” or “Dec.”), 7, 34.

After institution of trial, Patent Owner filed a Patent Owner Response (“PO Resp.,” Paper 16), Petitioner filed a Reply (“Pet. Reply,” Paper 23), and Patent Owner filed a Sur-reply (“Sur-reply,” Paper 25). We held an oral hearing on January 6, 2022, and a transcript is included in the record. Paper 31 (“Tr.”).

B. Real Parties in Interest

Petitioner identifies Philip Morris Products, S.A., Philip Morris International, Inc., Altria Client Services LLC, and Philip Morris USA as the real parties-in-interest. Pet. 75. Patent Owner identifies RAI Strategic Holdings, Inc., R.J. Reynolds Vapor Company, RAI Innovations Company,

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and R.J. Reynolds Tobacco Company as the real parties-in-interest.
Paper 4, 1.

C. Related Matters

The parties indicate that the '123 patent is involved in the following proceedings: (1) *RAI Strategic Holdings, Inc. v. Altria Client Services LLC*, No. 1:20-cv-00393-LO-TCB (E.D. Va.), and (2) *Certain Tobacco Heating Articles and Components Thereof*, U.S. International Trade Commission, Investigation No. 337-TA-1199. Pet. 75–76; Paper 4, 2.

D. The '123 Patent

The '123 patent is titled “Tobacco-Containing Smoking Article,” and relates to smoking articles “that produce aerosols incorporating components derived from, or provided by, tobacco,” where the aerosols “are not necessarily produced as a result of burning of tobacco.” Ex. 1001, code (54), 4:45–49. Instead, the smoking articles produce such aerosols “as a result of the application of heat upon tobacco or materials that are in contact with tobacco.” *Id.* at 4:49–52. The '123 patent explains that the smoking articles “produce visible aerosols that are ‘smoke-like’ in nature, and exhibit many of the sensory characteristics associated with those types of smoking articles that burn tobacco.” *Id.* at 4:52–55.

Figure 1 of the '123 patent is reproduced below.

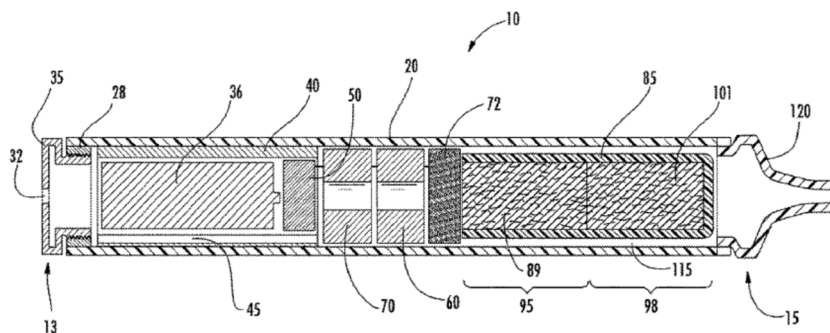


FIG. 1

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Figure 1 depicts a longitudinal cross-sectional view of one embodiment of an electrically powered, tobacco-containing smoking article. Ex. 1001, 8:31–32. Smoking article 10 includes outer housing 20 that is “generally tubular in shape,” and includes distal end 13 and mouth-end 15. *Id.* at 19:44–49. Control components 50 and sensor 60 are “preferably part of a puff-actuated controller adapted for regulating current flow through one or more of the” heating elements. *Id.* at 20:63–67. Resistance heating elements 70, 72 are powered by electric power source 36, controlled by electrically powered control components 50, and configured to allow airflow therethrough. *Id.* at 21:22–27. Second resistance heating unit 72 “can be formed from relatively high surface area absorbent or wicking-type materials,” or

can be employed in close proximity to an absorbent wicking material such that aerosol-forming material can be wicked or otherwise transferred so as to contact the second resistance element or contact an area in close proximity to the second resistance element (e.g., a region that is exposed to a the [*sic*] heat produced by the second resistance element).

Id. at 21:31–45. Smoking article 10 also includes cartridge 85 that contains tobacco 89 and an aerosol-forming material “in the form of an intimate mixture or provided in separate regions.” *Id.* at 22:2–6.

The ’123 patent explains that, during use, “[a]ir is drawn through the air passageways or openings 32 in the cap 35 located at the distal end 13 . . . and into the outer container 20.” Ex. 1001, 24:20–23. The “[d]rawn air passes through air passageway 45 that extends along the length of the power source 36 and the electronic controls components 50,” through an air passageway area within first heating element 70, through air flow sensing region 60, past or through second heating element 72, through an air

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