

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

LOGIC TECHNOLOGY DEVELOPMENT, LLC,
Petitioner,

v.

FONTEM HOLDINGS 1 B.V.,
Patent Owner.

Case IPR2015-00098
Patent 8,375,957 B2

Before GRACE KARAFFA OBERMANN, DONNA M. PRAISS,
and JO-ANNE M. KOKOSKI, *Administrative Patent Judges*.

OBERMANN, *Administrative Patent Judge*.

DECISION

Denying Institution of *Inter Partes* Review
37 C.F.R. § 42.108

Petitioner requests an *inter partes* review of claims 1–4, 6–18, and 21–24 of U.S. Patent No. 8,375,957 B2 (Ex. 1001, “the ’957 patent”). Paper 2 (“Pet.”). Patent Owner filed a Preliminary Response. Paper 7 (“Prelim. Resp.”). Applying the standard set forth in 35 U.S.C. § 314(a), which requires demonstration of a reasonable likelihood that Petitioner

would prevail with respect to at least one challenged claim, we decline to institute an *inter partes* review of any challenged claim.

I. BACKGROUND

A. *Related Proceedings*

Petitioner identifies nine district court actions involving the '957 patent, including one in which Petitioner is the defendant. Pet. 1–2 (citing, among other lawsuits, *Fontem Ventures BV v. Logic Tech. Dev. LLC*, No. CV14-1654 (C.D. Cal.)).

Petitioner also identifies as related an *inter partes* review that the Board instituted on December 30, 2013. *Id.* at 2 (citing *CB Distribs., Inc. v. Fontem Holdings 1 B.V.*, Case IPR2013-00387, involving U.S. Patent No. 8,156,944). The Board entered a Final Written Decision in that proceeding on December 24, 2014. *CB Distribs., Inc.*, Case IPR2013-00387, Paper 43 (PTAB Dec. 24, 2014).

B. *The '957 Patent (Ex. 1001)*

The '957 patent is directed to an apparatus that may function as an electronic cigarette, comprising a battery assembly and an atomizer assembly. Ex. 1001, Abstract. The battery assembly and the atomizer assembly are housed separately and connected by mated screwthread electrodes. *Id.* at claims 1, 10, 23 (independent claims).

Specifically, an external screwthread electrode, located on one end of the battery assembly housing, mates with an internal screwthread electrode, located on one end of the atomizer assembly housing. A cigarette bottle assembly is inserted into the other end of the atomizer assembly. *Id.* at Abstract, 3:9–10, 3:27–28, 3:49–53; *see* claims 1, 10, 23.

Those separate components are depicted in Figures 2A, 3, and 4:

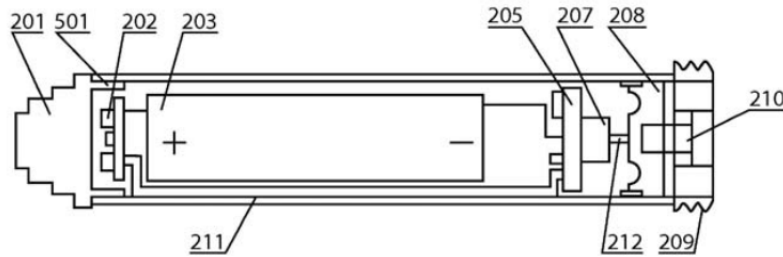


Figure 2A

Figure 2A is a diagram of a battery assembly including external screwthread electrode 209.

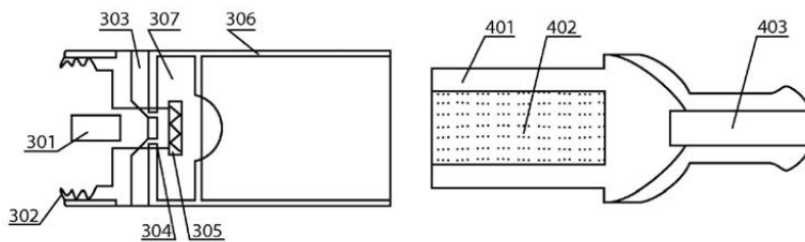


Figure 3

Figure 4

Figure 3 is a diagram of an atomizer assembly including internal screwthread electrode 302 and secondary shell 306. Figure 4 is a diagram of a cigarette bottle assembly.

External screwthread electrode 209 on the battery assembly housing mates with internal screwthread electrode 302 on the atomizer assembly housing. The cigarette bottle assembly (Fig. 4) is inserted into secondary shell 306 on the opposite end of the atomizer. *Id.* at 3:32–38.

The components may form an integral cigarette-type body, which is shown in Figure 5A:

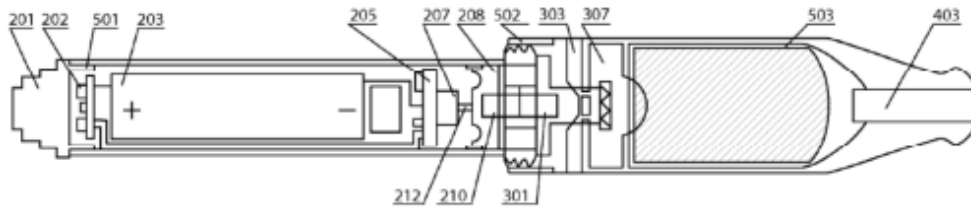


Figure 5A

Figure 5A is a diagram of the internal structure of the cigarette-type body when the battery assembly, atomizer assembly, and cigarette bottle assembly are in connected arrangement.

The external and internal screwthread electrodes may have holes through their centers. *Id.* at 5:59; 6:1 (independent claim 1). The apparatus may serve as a cigarette substitute or “be loaded with drugs for delivery to the lung.” *Id.* at 5:43–44. The external screwthread electrode on the battery assembly housing may function as a charging interface during the charging of a lithium ion battery, as shown in Figure 6. *Id.* at 4:58–61.

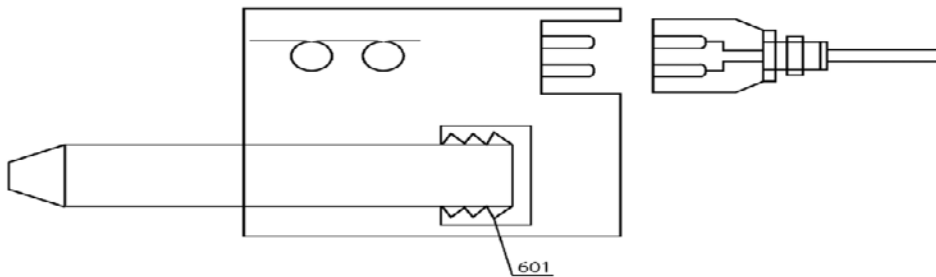


Figure 6

Figure 6 is a diagram of a battery charger including screwthread electrode 601, which mates with external screwthread electrode 209 on the battery assembly housing.

C. Illustrative Claim

Claim 1 is illustrative of the subject matter at issue in this proceeding:

1. An electronic cigarette or cigar comprising:

a battery assembly comprising a battery assembly housing having a first end and a second end, with a battery, a micro-controller unit (MCU) and a sensor electrically connected to a circuit board within the battery assembly housing;

a primary screwthread electrode located on the first end of the battery assembly housing and having a hole through its center;

an atomizer assembly comprising:

an atomizer assembly housing having a first end and a second end;

an atomizer, and a solution storage area in the atomizer assembly housing;

a secondary screwthread electrode located on the second end of the atomizer assembly housing and having a hole through its center, the battery assembly and the atomizer assembly connected through the primary and secondary screwthread electrodes; and

with the atomizer including a heater coil wound around a porous component.

D. Prior Art Relied Upon

Petitioner applies the following prior art references in the grounds of unpatentability asserted in the Petition:

Lik Hon, US Patent Pub. No. 2007/026703 A1, published Nov. 22, 2007 (Ex. 1005) (hereinafter “Hon”);¹

H.A. Gilbert, US Patent No. 3,200,819, issued Aug. 17, 1965 (Ex. 1007) (hereinafter “Gilbert”);

Robert Martin Voges, US Patent No. 5,894,841, issued Apr. 20, 1999 (Ex. 1009) (hereinafter “Voges”);

Clinton L. Whittemore, Jr., *et al.*, US Patent No. 2,057,353, issued Oct. 13, 1936 (Ex. 1008) (hereinafter “Whittemore”);

Wizzard, *What is a MOSFET, what does it look like, and how does it work?*, Internet Archive Wayback machine, <https://web.archive.org/web/20100305172540/http> (2004) (Ex. 1012) (hereinafter “TechPowerUp”); and

John D. Connors, EP 0533499A1, published May 24, 1993 (Ex. 1011) (hereinafter “Connors”).

E. The Asserted Grounds of Unpatentability

Petitioner challenges the patentability of claims 1–4, 6–18, and 21–24 of the ’957 patent on the grounds set forth in the chart below. *See* Pet. 4–5.

References	Basis	Claim(s) Challenged
Hon, Gilbert, Voges, and Whittemore	§ 103	1–4, 6–9, 16, 23, 24
Hon, Gilbert, and Whittemore	§ 103	10–12, 14, 15, 17, 18, 22
Hon, Gilbert, Whittemore, and TechPowerUp	§ 103	13
Hon, Gilbert, Whittemore, and Connors	§ 103	21

¹ Petitioner also refers to a Chinese equivalent of Hon (CN 2719043, Ex. 1003) and an English translation thereof (Ex. 1004). *See, e.g.*, Pet. 3.

With the exception of Connors, all of the references stated in those grounds are identified on the face of the '957 patent as having been considered by the Office during patent examination. Ex. 1001 (references cited). Connors is applied exclusively against dependent claim 21, and does not bear on our analysis of the grounds asserted against the independent claims—that is, claims 1, 10, and 23. *See* Pet. 4–5.

In addition to the prior art references, Petitioner relies on the Declaration of Gregory Buckner, Ph. D. Ex. 1002.

II. ANALYSIS

A. *Claim Construction*

In an *inter partes* review, claim terms in an unexpired patent are given their broadest reasonable interpretation in light of the specification of the patent in which they appear. 37 C.F.R. § 42.100(b); Office Patent Trial Practice Guide, 77 Fed. Reg. 48,756, 48,766 (Aug. 14, 2012); *see In re Cuozzo Speed Tech., LLC*, 778 F.3d 1271, 1278–82 (Fed. Cir. 2015). Claim terms are given their ordinary and customary meaning, as understood by one of ordinary skill in the art in the context of the entire disclosure. *In re Translogic Tech., Inc.*, 504 F.3d 1249, 1257 (Fed. Cir. 2007).

Our analysis centers on whether Petitioner shows sufficiently that it would have been obvious, at the time of the invention, to provide an apparatus having a separate battery assembly housing that connects to an atomizer assembly housing by mated screwthread electrodes, as required by each of the independent challenged claims. *See* Ex. 1001 (claims 1, 10, 23). None of the '957 patent claim terms requires express construction for the purposes of this decision.

*B. The Examiner's Treatment of the
"Mating Threads" Design During Patent Prosecution*

Petitioner argues that it would have been obvious to modify Hon "to provide a separate housing for the battery assembly." Pet. 23. For support, Petitioner quotes a statement, made by the Examiner during patent prosecution, that "it is known in many arts to provide devices in several pieces wherein each piece is connected by mating threads." *Id.* at 22 (quoting Ex. 1016, 8). The Examiner cited no objective factual support for that statement, and neither does Petitioner. *Id.*

Hon was considered by the Examiner and is raised in every ground asserted in the Petition. Hon relates to an electronic cigarette, but "does not disclose a housing for the battery" that is "separate from other components." Pet. 22; *see* Ex. 1005 ¶ 26, Fig. 1 (showing internal structure of Hon's electronic cigarette). Figure 1 of Hon is reproduced below.

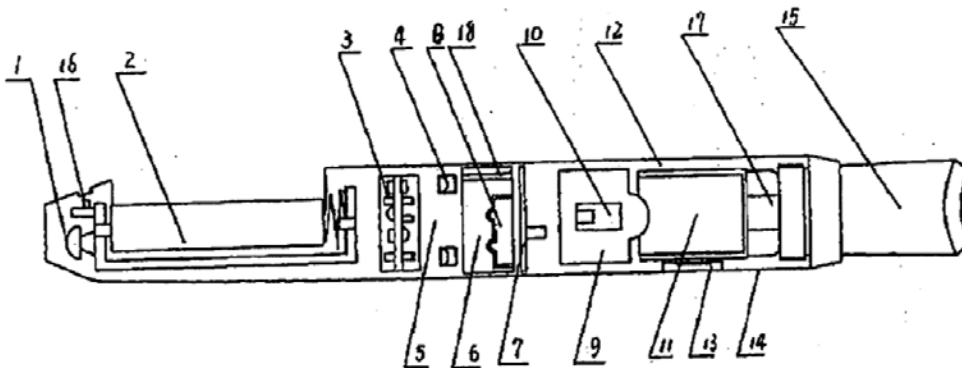


Fig. 1

Figure 1 is a schematic diagram of Hon's electric cigarette including battery 2 and shell 14, which houses the other components.

The Examiner considered Hon in the context of a previous version of the claims and before determining that the claims at issue here, in fact, were

patentable over Hon and every other reference applied against the independent claims in the Petition. In that context, the Examiner stated:

[Hon] does fail to teach or suggest that its electronic cigarette is provided in more than two parts wherein external threads are provided on the housing where the battery is located, and internal threads are provided at an end of the housing where the atomizer is located. But, it is known in many arts to provide devices in several pieces wherein each piece is connected by mating threads. Therefore, the fact that the claimed device is in more than two pieces, and the said pieces are connected by threads does not impart patentability to the claims.

Ex. 1016, 8² (emphasis omitted).

C. Analysis of Grounds of Unpatentability

Each of the challenged claims requires a separate housing for the battery assembly. An external screwthread electrode, located on one end of the battery assembly housing, mates with an internal screwthread electrode, located on one end of the atomizer assembly housing. Ex. 1001 (claims 1, 10, 23). The placement of the external screwthread electrode on the battery assembly housing permits that electrode to function as a charging interface for the battery. *Id.* at 4:58–61 (battery charger has a “screwthread electrode that matches the external thread electrode” located on the battery assembly housing) (internal numbering omitted); *see id.* at Fig. 6 (showing external screwthread electrode on the batter assembly housing in mated connection with charger electrode).

To make out that feature of the claims, Petitioner directs us to the testimony of Dr. Buckner. Pet. 22–23 (citing Ex. 1002 ¶¶ 71–73). Dr. Buckner, however, simply agrees with the Examiner’s statement that connecting “several pieces” of a device with “mating threads” was “known

² We refer to the exhibit page numbers located in the bottom right-hand corner of Exhibit 1016.

in many arts,” without citing any objective support to back it up. Ex. 1002 ¶ 71 (citing Ex. 1016, 8). Dr. Buckner’s naked agreement adds no probative weight to the Examiner’s statement. *See* 37 C.F.R. § 42.65(a) (opinion testimony that does not disclose underlying facts or data “is entitled to little or no weight”); *Ashland Oil, Inc. v. Delta Resins & Refractories, Inc.*, 776 F.2d 281, 294 (Fed. Cir. 1985) (expert opinion lacking objective support is “of little probative value in a validity determination”).

On this record, we determine that the Examiner’s statement, and Dr. Buckner’s agreement with it without providing any objective support, is insufficient to establish that it would have been obvious to modify Hon to include a separate housing for the battery assembly. *See* Pet. 21–23. We acknowledge that the Examiner’s reasoning “may include recourse to logic, judgment, and common sense available to a person of ordinary skill that [does] not necessarily require explication in any reference or expert opinion.” *See Perfect Web Techs., Inc. v. InfoUSA, Inc.*, 587 F.3d 1324, 1328–29 (Fed. Cir. 2009); *In re Bozek*, 416 F.2d 1385, 1390 (CCPA 1969) (an examiner may rely upon “common knowledge and common sense of the person of ordinary skill in the art without any specific hint or suggestion in a particular reference”). But recourse to “‘common sense’ without any support adds nothing to the obviousness equation.” *Mintz v. Dietz & Watson*, 679 F.3d 1372, 1377 (Fed. Cir. 2012).

We have considered Dr. Buckner’s opinion that one would have been led to modify Hon “so as to allow the battery assembly to be disconnected from the rest of the device to allow recharging of a rechargeable battery in the battery assembly housing.” Ex. 1002 ¶¶ 72–73. That opinion, however, fails to account for the fact that Hon already discloses a “rechargeable

battery.” Ex. 1005 ¶ 28. On this record, Petitioner does not establish a reason with a rational underpinning for the modification proposed by Dr. Buckner. *See* Prelim. Resp. 23.

Nor does Dr. Buckner provide a sufficient “reason why some components are in one housing assembly and others are in another housing assembly.” *Id.* at 24. On that point, Petitioner does not direct us to any disclosure in the prior art that would have led to the particular arrangement of elements specified in the claims, including a battery assembly housing having, on one end, an external screwthread electrode; and an atomizer assembly housing having, on one end, a mating internal screwthread electrode. *See* Pet. 21–23. On this record, we agree with Patent Owner that Dr. Buckner appears to use “impermissible hindsight,” based on the disclosure of the ’957 patent, “to decide which component goes where.” Prelim. Resp. 24–25; *see* Ex. 1001, 4:58–61 (the ’957 patent, disclosing a screwthread electrode on the battery charger that “matches the external screwthread electrode on the battery assembly”) (internal numbering omitted); *see id.* at Fig. 6 (showing utility of external screwthread electrode as charging interface, when located on the battery assembly housing).

In sum, based on the information presented, we determine that Petitioner does not show sufficiently that, at the time of the invention, it was “known in many arts to provide devices in several pieces wherein each piece is connected by mating threads,” much less that it would have been obvious to modify Hon’s device to include a separate battery assembly housing having, on one end, an external screwthread electrode. Pet. 22 (quoting Ex. 1016, 8). Petitioner does not identify even one prior art reference to substantiate the allegation about what was known in “many arts.” *Id.* On

this record, Petitioner fails to come forward with information sufficient to establish a reasonable likelihood of prevailing as to any challenged claim.

III. CONCLUSION

Taking into account the arguments presented in the Preliminary Response, we determine that the information presented in the Petition does not establish a reasonable likelihood that Petitioner would prevail with respect to at least one of claims 1–4, 6–18, and 21–24 of the '957 patent based on the asserted grounds of unpatentability. Accordingly, we deny the Petition and decline to institute an *inter partes* review.

IV. ORDER

It is

ORDERED that the Petition is denied and no *inter partes* review is instituted.

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