

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

R.J. REYNOLDS VAPOR COMPANY,
Petitioner,

v.

HEALTHIER CHOICES MANAGEMENT CORP.,
Patent Owner.

IPR2024-01458
Patent 9,538,788 B2

Record of Oral Hearing
Held: December 10, 2025

Before JO-ANNE M. KOKOSKI, KRISTINA M. KALAN, and
AVELYN ROSS, *Administrative Patent Judges*.

APPEARANCES:

ON BEHALF OF THE PETITIONER:

DAVID MAIORANA, ESQ.
JOHN MARLOTT, ESQ.
JOSHUA NIGHTINGALE, ESQ.
Jones Day
51 Louisiana Avenue NW
Washington, D.C. 20001
(202) 879-3939
dmaiorana@jonesday.com
jamarlott@jonesday.com
jnightingale@jonesday.com

ON BEHALF OF THE PATENT OWNER:

GEOFFREY LOTTENBERG, ESQ.
DAVID COLES, ESQ.
Berger Singerman LLP
201 East Las Olas Blvd
Suite 1500
Fort Lauderdale, Florida 33301
(954) 525-9900
glottenberg@bergersingerman.com
dcolls@bergersingerman.com

TOM FISHER, ESQ.
Cozen O'Connor
2001 M Street NW
Suite 500
Washington, D.C. 20036
(202) 471-3430
tfisher@cozen.com

The above-entitled matter came on for hearing on Wednesday, December 10th, 2025, commencing at 10:00 a.m. EST, via video-conference.

P R O C E E D I N G S

- - - - -

10:00 a.m.

JUDGE KALAN: Good morning. Welcome, everybody. In this hearing, we'll hear arguments in IPR2024-01458 concerning U.S. Patent number 9,538,788. I'm Judge Kalan, and I'm joined today by Judges Ross and Kokoski. And I'd like to start with appearances, beginning with Petitioner.

MR. MAIORANA: Good morning, Your Honor. David Maiorana from Jones Day on behalf of the Petitioner, R.J. Reynolds Vapor Company.

JUDGE KALAN: Thank you.

MR. MAIORANA: And I'm joined by Mr. Marlott, who is designated as lead counsel for this proceeding.

JUDGE KALAN: And will you be presenting arguments or will Mr. Marlott?

MR. MAIORANA: I will be, Your Honor.

JUDGE KALAN: Thank you. And for Patent Owner?

MR. LOTTENBERG: Good morning, Your Honor. This is Geoffrey Lottenberg from Berger Singerman. I'm joined in my office by David Coles from Berger Singerman as well. Also on the line is Tom Fisher, who's co-counsel from Cozen O'Connor. We may have a client representative from the Patent Owner, Mr. Jeff Holman. I'm not sure if he's on here quite yet, but he may be here, and he's the CEO of the Patent Owner.

JUDGE KALAN: Thank you. And you will be presenting the entirety of Patent Owner's presentation, or you may split it up?

MR. LOTTENBERG: I'll be presenting the entirety, Your Honor.

1 Thank you.

2 JUDGE KALAN: A few details before we begin, we'd like to remind
3 you that we have copies of the demonstratives that you have filed. When
4 you're referring to the demonstratives, please clearly and specifically
5 identify which one you're referring to so everyone can follow along and for
6 the transcript. Because we are virtual, I also ask that you keep yourself
7 muted when you're not speaking, and keep in mind that because this is a
8 remote hearing there is sometimes a lag, and so a delay before speaking can
9 be helpful. As we set forth in our hearing order, each party has 60 minutes
10 to present their arguments. Petitioner will proceed first and may reserve
11 time for rebuttal. And Petitioner, what would you like to reserve for
12 rebuttal, if any time?

13 MR. MAIORANA: Fifteen minutes, Your Honor. Thank you.

14 JUDGE KALAN: Thank you. And Patent Owner, you will also have
15 60 minutes for your presentation. Would you like to reserve any time for
16 sur-rebuttal?

17 MR. LOTTENBERG: Sure, Your Honor, I'll reserve ten minutes.

18 JUDGE KALAN: Petitioner, you have 45 minutes for your initial
19 presentation. You may begin when you're ready.

20 MR. MAIORANA: Thank you, Your Honor. We're going to share
21 our presentation. Is everyone able to see that?

22 JUDGE KALAN: Yes.

23 MR. MAIORANA: Okay, great. Good morning, Your Honors,
24 David Maiorana on behalf of the Petitioner. This is a straightforward case
25 involving a simple application of a skill of a person of ordinary skill in the
26 art. To obtain the patent during prosecution, the applicant significantly

1 limited the claims to a bulb containing a heating wire. But there are myriad
2 references that weren't before the Examiner that disclosed the use of a bulb
3 to heat fluid and create an inhalable vapor. The Gilbert reference that we're
4 going to discuss today is one of those references. And if this bulb art and the
5 other art that we relied on in the petition were before the Examiner, we
6 submit that the Examiner would have found the claims anticipated or
7 obvious, and the '788 claims should be canceled.

8 Now, Patent Owner raises several arguments in response, but as we
9 set forth in the briefing and I'm going to discuss today, most of those
10 arguments are straw men. They're arguments that we didn't make, and we're
11 going to focus on the arguments we did make. And why does Patent Owner
12 spend so much time in the briefing attacking straw men? Because they don't
13 have persuasive arguments in counter to the arguments we actually did
14 make. And I want to note here at the outset that Patent Owner did not
15 separately argue the challenged dependent claims, which are 7, 8, and 11.
16 So, this proceeding rises or falls and this patent rises or falls on independent
17 Claim 1, which I'm going to focus on today.

18 All four challenged claims should be cancelled. And I'm going to
19 Slide 3, Your Honors. This is Figure 2 from the '788 Patent, and this is the
20 embodiment that's claimed in Claim 1. It's got an electronic cigarette with
21 conventional components that has two chambers, 20 and 25, and we're going
22 to talk about those today. It's a traditional e-cigarette that we see all around
23 in the art. And Claim 1 recites an e-cigarette with conventional components,
24 a casing with two chambers, a battery in one of the chambers, a fluid
25 containing member, a heating assembly, a bulb for heating the fluid, a fluid
26 passageway to get the fluid to the heater, and an air inlet to bring in air. And

1 it's important to note, and I'm going to talk about this in a little bit, the
2 claims do not recite anything about vaporization, and you're going to see
3 why that's important.

4 Turning to Slide 5. As I mentioned, the bulb limitation in Claim 1 is
5 the key. This is what they told the patent office was new and non-obvious
6 and why they got the patent. But this is it in terms of the disclosure of the
7 bulb, and I'm going to talk about that more in my presentation. Turning to
8 Slide 5. The claims originally filed recited a heating assembly. You see that
9 here on the left-hand side of Slide 6. No mention of a bulb anywhere. And
10 the Examiner rejected the claims over a combination of references and the
11 Applicant amended Claim 1 to include several bulb limitations that we show
12 on the right side of our Slide 7.

13 And the Examiner rejected the amended claims again over a piece of
14 prior art that disclosed a vaporizer with a glass bulb, called Hunter. That's
15 on our Slide 8. But on Slide 9, the Applicant responded and said, Hunter is
16 not analogous art. It doesn't qualify as prior art and can't support the
17 rejection. And they argued that the art fails to show a tube wherein the
18 second end of the tube is affixed to the bulb heater, and that the problem
19 supposedly solved in the invention is to provide an electronic cigarette or
20 vaporizer that heats an inhalation fluid without the fluid coming into direct
21 contact with the wire. That's what they told the office was novel and
22 patentable here. This is on our Slide 10. And the Examiner allowed the
23 claims based on those representations and the amendments. And the only
24 arguments that were made during prosecution were to the bulb limitations.
25 That was Slide 11.

26 So, on Slide 12, we've got Claim 1 reproduced, and I've highlighted

1 the bulb limitations. There are several of them. This claim is focused on the
2 use of a bulb in an electronic cigarette, but bulb vaporizers were long known
3 in the art, long before this patent application ever came along. On Slide 13,
4 we show you two examples. These are in our petition on Pages 11 and 12,
5 of a reference filed in 1928 and 1936 that use a bulb to directly heat a
6 material to form a vapor. So, the use of a bulb, not new, well known in the
7 art long before this patent came along.

8 On Slide 14, we summarize the grounds. There's two grounds.
9 Ground 1 is focused on Gilbert as the primary reference, and Ground 2 is
10 focused on Lee. And there's a few things I want to point out that are not in
11 dispute. I mentioned already, Patent Owner's arguments are directed only to
12 independent Claim 1, so dependent Claims 7, 8 and 11, they rise and fall
13 with independent Claim 1. And also, if Patent Owner concedes that all the
14 limitations are disclosed by the art that we set forth in the petition, with the
15 exception of a few that I'm going to discuss, but the vast majority of these
16 limitations are not contested. This is Slide 15. Turning to Slide 16 --

17 JUDGE KALAN: Before you go on --

18 MR. MAIORANA: Yes, Your Honor.

19 JUDGE KALAN: -- I had a question about the depiction on Slide 5 of
20 Figure 3. Could you walk us through the fluid pathway and what it does and
21 doesn't contact in that Figure 3? Just so we have a set up for the comparison
22 to the asserted prior art.

23 MR. MAIORANA: So, you can't necessarily tell from Figure 3 where
24 the fluid goes. The patent doesn't tell you that. You've got it on the right-
25 hand side, 215 is some kind of a fibrous material that helps deliver the liquid
26 to the area of the bulb, but after that, you're left to your imagination as to

1 exactly how the material, the liquid, gets to the bulb. And that's important
2 for some of the arguments that Patent Owner is making here to try to save
3 this patent. But that's why we have this Slide 5, Your Honor. This is it, in
4 the '788, in terms of how the bulb works, how it's connected to anything,
5 how the liquid gets to it. This is the full extent of that disclosure.

6 JUDGE KALAN: So, the heating wire 225 appears to be disposed on
7 some sort of support on a vertical axis. Do we know what that is, or is that
8 just unexplained in the, in the spec?

9 MR. MAIORANA: It's unexplained, Your Honor. We don't know
10 what that is. It's not -- just to be clear, the Lee reference that we're going to
11 look at is a what we call a coil-wrapped wick. So actually, it has a coiled
12 wire, and inside that coil is a material that holds the liquid. That's not what
13 this is. The liquid is coming from the right here, 215, which is a fibrous
14 material. But it doesn't tell you anything more than what you see here in
15 Figure 3.

16 JUDGE KALAN: Thank you.

17 MR. MAIORANA: Thanks. So, back to Slide 14. Excuse me, 16.
18 Slide 16. In Ground 1, there are some arguments about the references don't
19 necessarily disclose certain limitations, and we've briefed that. And then
20 Ground 2, they don't contest what the references disclose. They really just
21 argue that the operability of combining Lee with Gilbert or Levin, and also
22 they have an argument that Gilbert and Levin teach away. So, I'm going to
23 focus the beginning of my remarks on Ground 2. There's less in dispute, and
24 I think it's illustrative of what's at issue in this, in this proceeding.

25 So, turning to Slide 17. This is a summary of our positions with
26 respect to Ground 2. We argue that Lee would have rendered obvious the

1 claims in view of Gilbert or Levin. And a couple of excerpts from our
2 petition at 56 and 59, explaining that our position was, it would have been
3 obvious to modify Lee to include a bulb-heating structure like that's
4 disclosed in Gilbert or Levin. It's as simple as that. That's the only change
5 we're proposing here for Claim 1, is taking the structure of Lee, which has a
6 coil wrapped wick as I mentioned, and substituting that for a bulb, which I
7 said has been in the art for 100 years. Simple substitution.

8 JUDGE KALAN: Counsel, one more question.

9 MR. MAIORANA: Yes.

10 JUDGE KALAN: There's a distinction made by Patent Owner
11 between Gilbert's electric cigarette and then the electronic cigarettes of the
12 other references. Could you explain why or if this is of any consequence?

13 MR. MAIORANA: It's not of any consequence, Your Honor. These
14 are all the same things. These are devices intended to heat a liquid that a
15 user can then inhale. And whether you call it electric or electronic, people
16 use those words interchangeably. We don't see that as any issue that should
17 concern Your Honors. And as we get into the specifics of the limitations of
18 the claims, you'll see that Lee plus Gilbert or Levin have all the limitations,
19 whether you call it an electronic or electric cigarette.

20 So, on Slide 18, we have a depiction from Lee on the left, showing the
21 coil-wrapped wick, which is in it with a red box that says heating element.
22 And on the right is our depiction of what a POSA would be motivated to do,
23 to put a bulb in place of a coil-wrapped wick. And I'll explain why a POSA
24 would have been motivated to do that, but this is the crux of our argument,
25 Your Honors. Simply taking a bulb that had been known for decades and
26 substituting that for the coil-wrapped wick of Lee. Everything else is there.

1 They don't contest that.

2 Now, why would a POSA have been motivated? Of course we need
3 to show that as the Petitioner, and we did. In our petition here on Slide 19,
4 we show pages 57 and 58. We gave a couple of different reasons. A POSA
5 would have been motivated to implement a heating element within a glass
6 bulb to address inhalation risks and metallic taste issues associated with
7 using a bare wire to directly contact the fluid. And we cite to our expert, Mr.
8 Kodama, who I'll talk about in a second. We also gave a second reason. A
9 POSA would have been motivated to substitute a glass bulb for Lee's coil
10 wrapped wick to increase the life of the heating element and prevent failure
11 of the device. And I'll explain that in a little more detail, but that's Slide 19.

12 Now, we have additional evidence of motivation on Slide 20. On the
13 right-hand side is an excerpt, paragraph 4 of Levin, which is Exhibit 1009.
14 And Levin tells a POSA that vaporizing the solution by directly contacting
15 the heating element often severely reduces the life of the heating element so
16 that such devices require frequent replacement. And also, the devices are
17 prone to premature failure. We've highlighted this on the right-hand side of
18 Slide 20. And then we explain, both in our petition and in Mr. Kodama's
19 declaration Exhibit 1003, why those shortcomings would motivate a POSA
20 to put a bulb into Lee. And the bulb, Your Honors, we all know what a light
21 bulb is. It's a glass that has the wire, the filament inside. So, if you use a
22 bulb, and you contact the outside of the bulb with the fluid, now you're not
23 contacting the wire with the fluid. And that's exactly what Levin says
24 Exhibit 1,009 is a drawback.

25 And so, Mr. Kodama explained in his declaration, paragraphs 117 and
26 119, why a POSA would have been motivated to substitute a bulb for Lee's

1 coil wrapped wick. And he explained this concept of a dry hit, which
2 happens when insufficient amounts of the liquid are in contact with the
3 heating element. The user would actually inhale the sort of metallic flavored
4 gas, which is really unpleasant. And Mr. Kodama, just to set this up, he was
5 involved in designing e-cigarettes at the time of the earliest claimed priority
6 of this patent. He knows these issues. He designed e-cigarettes. He worked
7 at a company called Pax Labs, which later became Juul, which is one of the
8 most famous e-cigarette companies in the country. And he's explaining from
9 his perspective as what a POSA would understand the drawbacks of a coil
10 wrapped wick of Lee, and why you would substitute the bulb of Gilbert and
11 Levin. So, we gave ample explanation in the documents, in the pleadings, as
12 to why a POSA would have been motivated to substitute a bulb heater for
13 the coil wrapped wick of Lee.

14 Now, turning to Slide 21, the Patent Owner didn't actually argue that
15 combination. They argued a straw man. I mentioned it at the beginning of
16 my remarks, there's all these straw men. This is one of them. They take the
17 bulb of Gilbert, which is what you see on the right-hand side of Slide 21,
18 which is from the Patent Owner response at 29. And they say, this is what a
19 POSA would get if you combine Gilbert and Lee. Well, first of all, we all
20 know patent drawings are not to scale. So, I don't understand why they think
21 the Gilbert bulb is that big as compared to Lee.

22 But putting that aside, this argument, Your Honors, first of all, it's not
23 the combination that we made in the petition. The one we made is on the
24 left-hand side of Slide 21, which is from Page 57 of the petition. And their
25 argument is, well, you couldn't put this giant bulb inside of Lee, this is what
26 it would look like. Well, that's an improper combinability argument, as we

1 set forth in the papers. We're not arguing that you would take Gilbert's exact
2 bulb and cram it into Lee. That's not what we're saying. What we're saying
3 is that a POSA would have been motivated to substitute Lee's coil wrapped
4 wick for a bulb, as shown in the left-hand side of Slide 21, and a POSA
5 would have easily been able to put a bulb into Lee with reasonable
6 expectation of success and make it work in the way that Lee intends. And
7 that's all explained in our papers, Your Honors.

8 JUDGE KALAN: Could you elaborate on that a little bit? Because
9 Gilbert's principle of operation seems to require a bulb with these sorts of
10 longer dimensions, and so the shortening or the miniaturizing of that bulb
11 would possibly compromise Gilbert's principles of operation. Could you
12 clarify?

13 MR. MAIORANA: Yes, Your Honor. So, first of all, we don't know
14 from the drawings, because they're not to scale, if Gilbert actually would be
15 made smaller or not. We don't know the relative sizes of the two. But our
16 point is that a POSA would understand how to make this simple substitution
17 that Lee is --which is the primary reference, has all the limitations except for
18 the bulb. Explains how you deliver fluid to the heating element, you have a
19 battery, you have all the different components of Claim 1. And then our
20 expert testified, Mr. Kodama, that a POSA would understand how to
21 substitute a bulb, make the right connections. Really, all you're doing here is
22 you're putting a glass enclosure around the heating wire. In Lee, the heating
23 wire is exposed. But in terms of Gilbert's operation, we're not relying on
24 Gilbert for its form of operation, we're relying on Lee for its operation. It's
25 the primary reference. It has all the limitations and that a POSA would
26 understand. Since bulbs have been around in these kinds of devices for

1 decades, a POSA would understand how to make that substitution.

2 So just quickly, in Slide 22, some of the case law that we relied on for
3 this interoperability argument or bodily incorporation, this is black letter
4 patent law, Your Honors. I don't have to tell you that. An argument that
5 you can't cram the secondary reference into the primary reference, that's
6 irrelevant. And that's the majority of their arguments here on this ground,
7 Ground 2, Lee in view of Gilbert and Levin. That you couldn't, a POSA
8 couldn't figure out how to put a bulb into Lee. It's legally irrelevant, and if
9 you put that argument aside, then all you're left with is a straw man, which
10 I'm going to talk about here in a second.

11 The next argument that they make, a new one in the sur-reply, is that a
12 POSA would be motivated away from using Gilbert because the electronic
13 devices include circuits and the like and are focused on vaporization. Well,
14 vaporization is not in the claim. Claims do not require anything to be
15 vaporized. Claim 1 requires it to be heated. The liquid must be heated,
16 that's it. So, it is black letter law that it's improper to argue patentability
17 based on a non-claim limitation. That's what they're doing here in this
18 argument that we show on our Slide 23.

19 JUDGE KALAN: And I don't want to introduce a claim construction
20 issue where one doesn't exist, because it doesn't appear to exist in the papers,
21 but fluid and vapor are necessarily the same or different for purposes of this
22 proceeding? Or does it matter?

23 MR. MAIORANA: It doesn't matter, because as I have on the screen
24 on Slide 24, Your Honor, and I've highlighted, the bulb heats fluid
25 introduced to and coming in contact with the bulb through the fluid
26 passageway. So, the claim only requires the fluid gets heated. So whether it

1 turns to a gas or doesn't turn to a gas, it doesn't matter. And the references
2 disclose heating. That's all we need to show for purposes of this proceeding.

3 So, there's no -- vaporization or not or gas doesn't matter. There is an
4 argument about gas and liquid mixing, which I'll get to in a second. So, it
5 does matter there a little bit, but for purposes of your analysis, do the
6 references disclose a bulb heating of fluid? Yes, they expressly say that, and
7 this is not contested.

8 JUDGE KALAN: So, if we have a bulb heating a vapor, that falls
9 under the umbrella of a bulb heating a fluid?

10 MR. MAIORANA: Well, yes. What you're going to find in the
11 references, Your Honor, is a bulb heating a fluid and a gas mixture. Because
12 the way these things work is, a user takes a draw, they suck in on the device,
13 it pulls air in from the outside, and then fluid gets mixed with that. So,
14 you're going to have a mixture of, say, liquid. Instead of using the word
15 fluid, I'll say liquid and gas. You're going to have a mixture, but there's still
16 a liquid in there and that's a fluid. And the bulb in these references heats
17 that fluid. That's the way that they work. So, whether you're talking about
18 gas or liquid, it doesn't matter. The fluid that's described in this patent and
19 in these claims is a liquid. That's what's in the fluid containing member, and
20 that's why there's a fibrous element that wicks that liquid towards the bulb.
21 We looked at that on, I think it was our Slide 4. So, this is all a bunch of
22 semantics that don't matter in our view, Your Honor.

23 Now, there's an argument about the Levin reference. Patent Owner
24 argues that, well, if you put a bulb into Lee, you would encapsulate the fiber
25 assembly, which is described in -- as F. And that's a straw man argument.
26 We're not arguing that you would take a bulb and encapsulate the fibrous

1 material. Remember, I said in Lee, there's a coil-wrapped wick which you
2 can see circled in this slide, which comes from Dr. Garris' declaration, who
3 is Patent Owner's expert. The fibrous material goes through the coil-
4 wrapped wick. What we're saying is, you wouldn't use a coil-wrapped wick
5 at all. You'd use a bulb where the wire, the heating wire, is inside the glass
6 bulb, and then the POSA would understand how to deliver the liquid to the
7 bulb, which has been known for decades.

8 So, this idea about encapsulation of the fiber assembly, that's not
9 argument that we made. So they're arguing some different argument that we
10 didn't make, but the argument we did make, which is on Slide 26 that I'm
11 showing you, is substituting a bulb in Lee for the coil-wrapped wick of Lee.
12 And that's a simple substitution here. A POSA would understand how to
13 deliver the fluid to the bulb. That's been done for decades, and they don't
14 really dispute that aspect. They're just making up this, well, your bulb
15 would encapsulate the fibrous material.

16 JUDGE KALAN: So, in the context of the depiction on your Slide
17 26, where does the fluid come from and where does it go?

18 MR. MAIORANA: The fluid comes from the left-hand side, Your
19 Honor. So, in the center of the screen there is a -- I don't know, there's a
20 horizontal tube to the left of the bulb, and it would deliver it to the vicinity
21 of the bulb, and then the vapor would go out the right-hand side to the --
22 okay.

23 Actually, let me correct that, Your Honor. This, the path of the liquid
24 is going to be sort of transverse to this page. But if you look at the -- let's
25 see here. This is a better view of it. As you can see, this is Lee on the left-
26 hand side with our depiction of a bulb, the yellow highlighted, and the fiber

1 is what delivers. So it's F here, the blue part is what delivers the liquid to the
2 bulb. So, before there was a coil-wrapped wick around that fiber, and we're
3 saying it would have been obvious to substitute a bulb. So, you still have
4 the fiber there, and a POSA would understand how to use make use of that
5 fiber to get the liquid to the bulb in order to heat it.

6 Now, their argument, which you're looking at on Slide 27, is that,
7 well, if you put a bulb there, you'd have these floating ends of -- they call it
8 collapsed fiber end F, and that a POSA couldn't figure out how to make that
9 work. That's the argument. This is a new argument in the sur-reply. But,
10 our response to that is, a POSA certainly would understand how to make that
11 work. And Mr. Kodama explained that in spades in his declarations. A
12 POSA would understand you need to get, deliver the fluid to the bulb in
13 order to heat it, and that what gets heated then is delivered to the user.

14 So, the free liquid is in the space that -- that F is attached to. So, I
15 believe it is -- so, on the right side, you can see there's a passageway 143.
16 Around that passageway is where all the fluid is held, and then the wick
17 obviously goes into that passageway, and it, by capillary action, pulls the
18 liquid into the chamber where the heater is. In Lee, the unchanged Lee,
19 there's a coil around that blue fiber, and we've substituted that coil for a bulb.
20 So, all you're doing here is you're using the same wick of Lee to deliver fluid
21 from the same fluid-containing area to the area of the bulb. Very simple.

22 JUDGE KALAN: So it's all capillary action at the end of the day, but
23 it's not -- you're saying it's not destroying the principle of operation of Lee to
24 slice the fiber and have it in the chamber indirectly contacting the heating
25 element, as opposed to having a heating wire around the fiber?

26 MR. MAIORANA: Right. There are dozens of e-cigarettes that use

1 this concept that --

2 JUDGE KALAN: Okay.

3 MR. MAIORANA: What happens is, in most of these devices, the
4 user takes a draw on the mouthpiece, and there's a pressure sensor in there
5 that says, oh, there's now a draw, I sense a negative pressure. It turns on the
6 heater. And then, the heater then heats up whatever it's next to, which
7 happens to be liquid, and then as that liquid gets heated and taken away,
8 more liquid moves by capillary action through the fiber to the heating
9 element.

10 Same concept for a bulb or a coil around that wick, so that the only
11 thing we're changing here is we're putting a bulb glass around the wire, and
12 you're heating the liquid with the bulb as described in the prior art, instead of
13 using the coil, directly contacting the coil, which Levin explained is
14 problematic. That's it. That's the only difference here between Lee's method
15 of operation and our combination.

16 So, turning to Slide 28. I mentioned this at the outset in response to
17 your question, Your Honor. This is it for disclosure of how the bulb works.
18 So, they criticize us because we and our expert didn't explain how the liquid
19 would get to the bulb. All the patent at issue here says is that you got a bulb
20 and a heating wire and it heats the fluid. That's it. It doesn't tell you how the
21 liquid gets to it. It doesn't tell you any of that. And yet, they're criticizing us
22 because our combination doesn't have that. So, I just want to give that
23 context here on Slide 28 to look at as you're considering Patent Owner's
24 arguments here.

25 Now, on Levin, there's another bodily incorporation argument. In the
26 sur-reply, they argued for the first time that if you're going to use Levin's

1 bulb, which is depicted here on Slide 29, you've got to take all the other
2 parts of it, this bulb holder, and there's additional components. Well, we
3 don't even rely on that embodiment of Levin in our ground. We're not
4 relying on this particular bulb here. So, it's really just attorney argument
5 raised for the first time in sur-reply that these couldn't be bodily
6 incorporated.

7 Now, originally, Patent Owner argued that Levin teaches away from
8 conductive heating. And here's a part of their PO response, talking about
9 Levin doesn't disclose conductive heating. But Levin actually does disclose
10 conductive heating. We pointed that out in our reply. And this is an excerpt
11 from Levin Exhibit 1009 on Slide 31 that it uses conductive heating, and
12 Levin actually claims conductive heating. This is Claim 28 from Exhibit
13 1009. So, once we pointed out, well, Levin actually does disclose
14 conductive heating, they -- their expert acknowledged that, too, sorry. Slide
15 33, their expert acknowledged that Levin does conductive heating. That's
16 Exhibit 2001 at paragraph 108.

17 So, once we pointed out Levin actually does disclose conductive
18 heating, they pivoted to say, well, now, you didn't explain how Levin's
19 micro-convection heater and cone-shaped reflector could be put into Lee.
20 But that's not the embodiment of Levin that we're relying on. So, it's the
21 straw man again. This is an argument we didn't make, because they don't
22 have an argument to say against the ground we actually did argue. They just
23 argue this other one. We didn't we didn't make this argument. It's a straw
24 man and should be ignored.

25 So, that's Ground 2 based on Lee. If Your Honors don't have any
26 questions on that ground, I'll move to Ground 1. So, Ground 1 is based on

1 Gilbert. We talked about Gilbert a little bit, because it's a secondary
2 reference in Ground 2. These are the arguments that they make in response
3 to our Ground 1. They're saying that we haven't shown where these
4 particular elements of Claim 1 are depicted in Gilbert and/or our
5 combination Gilbert plus Cohen. So, let me walk through those for Your
6 Honors.

7 The first issue is whether or not we've shown an air inlet on the
8 external wall of the casing. And this, on Slide 36, are depictions from the
9 petition in our reply, showing where there's a first chamber and a second
10 chamber and a sealing element and a fluid containing member in the second
11 chamber. We've pointed all that out in our papers, and I've summarized it a
12 little bit here on Slide 36. But Gilbert discloses a bulb in an e-cigarette that
13 heats a fluid and delivers it to the mouth of a user. That's not contested.

14 JUDGE KALAN: So, on Slide 36 --

15 MR. MAIORANA: Yes.

16 JUDGE KALAN: In the sur-reply, the Patent Owner took the position
17 that this is a new argument, the argument that the opening at the end of the
18 Gilbert device is what serves as the air inlet. Is that a change in position
19 from the petition, or how would you characterize it?

20 MR. MAIORANA: It's not a change, Your Honor, and I'm going to
21 explain where it is in our petition and why it's a clarification to the extent it
22 was necessary. But it's not a new position, and I'm going to show you where
23 it is in the petition and in our expert's original declaration in 1003.

24 But on Slide 37, I did want to mention that Your Honors indicated in
25 the institution decision that you weren't sure whether or not we had shown
26 that Gilbert discloses an air inlet on the external wall of the casing. And I'm

1 showing on Slide 37, page 19 from the institution decision. So, I want to
2 address that, because -- and we did address it in the reply, but I want to
3 address it here directly to address Your Honor's concerns.

4 On Slide 38 is an excerpt from our reply, where we indicated that we
5 were not relying on the air inlets in the fibrous material, that what they call
6 the fluid containing member. We did point to them -- so, sorry, I'm flipping
7 around a bit. Slide 37, on the right-hand side, you can see what we -- this is
8 how we pointed to them in the petition, and we said air inlet. So Your
9 Honor's question, well, that's pointing to inlets in the fiber fluid containing
10 member, not in the casing. So, we clarified that in the reply, but we did
11 address it in the petition. It may have just been -- we either weren't 100
12 percent clear, or there was a misunderstanding of what we were pointing to,
13 but we've clarified that in the proceeding, and we don't agree it's a new
14 argument, but let me explain why that is, Your Honor.

15 So, in the Petitioner reply, we made clear both in our petition and in
16 Mr. Kodama's reply declaration, which is Exhibit 1026, he made clear that
17 he was pointing to the air inlet on the external wall, the casing, which is in
18 the bottom left portion of Slide 38. This is a portion of Gilbert Figure 1.
19 And the part you don't see in the bottom left of Slide 38 is the liquid
20 containing member, the fluid containing member. We've taken that off to
21 make it clear the air has to go through where we're pointing to there, through
22 the casing of Gilbert, for this to work. And I'll show you where we pointed
23 to that in the petition.

24 This is Slide 39. In paragraph 97 of Mr. Kodama's declaration, this is
25 Exhibit 1003, he said that the air inlets are shown in annotated Figure 2
26 below, and would open to the ambient air through the external wall of the

1 casing. So, he's pointing to the external wall, the casing, which flipping
2 back to Slide 38 on the bottom left, you can see where we're pointing to. So,
3 on the bottom left of Slide 38, the fluid containing member is not there in
4 that figure, but that's where the air would go in. It goes through the air inlets
5 and the fluid containing member into an air inlet on the external wall of the
6 casing, which he did mention here. Mr. Kodama mentioned in paragraph 97,
7 he says, the air inlets are shown and would open to the ambient air through
8 the external wall of the casing.

9 So, we submit, respectfully, Your Honor, that we did show that there
10 is an air inlet in the casing, which is what the claim requires in the petition.
11 But we clarified that, and the case law allows the petition to clarify. And
12 there's a case, Cisco versus Corrigent, which is IPR2023-00168, Paper
13 Number 31 at page 35. A clarification is permitted. And so, we did that on
14 Slide 40. We clarified we were pointing to the air inlet on the out -- the
15 outer wall of the casing, which is shown here on the left-hand side from Mr.
16 Kodama's reply declaration. And he clarified, I identified the air inlets in the
17 cartridge as passages that, quote, open to the ambient air through the
18 external wall of the casing, end quote. In other words, they open to the
19 ambient air through an opening, the claimed air inlet of the casing's external
20 wall. That's from paragraph 20 of Exhibit 1026. So, to the extent there was
21 any confusion in the petition, we don't think there was, but we've clarified
22 that, which is permitted, under the PTAB precedent.

23 Now, on Slide 41, we have a couple of quotes from Dr. Garris'
24 declaration, where he says that an air inlet is an opening that allows air to
25 come into the e-cigarette. It's super broad, right? Any opening that allows
26 air to come in, that's an air inlet. He agrees with that. And does the '788

1 Patent impose any restrictions on the size of the air inlet? No, it does not.
2 And therefore, there's no real contest here. They're not contesting that it has
3 an air inlet, it's just sort of a gotcha, you didn't say it in the petition. We
4 disagree with that. Respectfully, it is in the petition, but we've clarified it.
5 So really, what's before Your Honors is clear teaching of an air inlet in the
6 casing of Gilbert.

7 Now, there's some discussion by Dr. Garriss about air escape problem.
8 I don't want to spend a lot of time on that, but on Slide 42, we've got
9 excerpts from our expert's reply declaration 1026 and Doctor Garriss'
10 deposition 1027. They both agree that there's no air escape problem. That's
11 really a moot issue at this point, but I just didn't want it to go unmentioned.

12 So, another argument that Patent Owner makes with respect to our
13 Gilbert Ground is that we haven't shown that Gilbert has the first and second
14 chamber. And here on Slide 43 is excerpts from the petition at page 39 and
15 41 where we did show the first and second chamber within Gilbert. And we
16 made that very clear, what we were pointing to, and that's a fluid containing
17 member in the second chamber as Claim 1 one requires. So, that's what we
18 pointed to.

19 What the Patent Owner points to is, well, Gilbert calls these other
20 things chambers, and so those, the ones that Petitioner points to, those can't
21 be the claim chambers because Gilbert calls something else chambers.
22 That's not a persuasive argument, Your Honors. It doesn't matter what
23 Gilbert calls them, Gilbert calls them chambers or not chambers, has two
24 chambers or four chambers. As long as we have shown that there is a first
25 chamber and a second chamber in Gilbert, as the claim requires, that's the
26 end of the story. And we have shown that.

1 And we have just a couple of cites for Your Honors. There's no
2 requirement that the prior art has to be arranged in the same way or use the
3 same words as the patent. All we have to show is that the reference
4 discloses the chamber, first and second chamber of the claim, and we've
5 done that. The terminology, identity of terminology is not required. So, we
6 asked Dr. Garris in his deposition, this is Slide 46, what's a chamber? He
7 said, it's an enclosure. A chamber is an enclosure. And we agree with that,
8 a chamber is an enclosure. So when you apply that plain and ordinary
9 meaning, certainly Gilbert discloses a first chamber and a second chamber.

10 What I'm showing on Slide 47 is, what they're pointing to, a shorter
11 and longer chamber that Gilbert refers to in the specification, those are not
12 the first and second chambers that we pointed to. Again, this is a straw man.
13 They're saying, well, these other chambers, if these are the chambers, then
14 you don't meet other claims that require certain things to be in certain
15 chambers. Well, we didn't point to these as the chambers. We pointed to
16 other things as the chambers. And under Dr. Garris' definition, the chamber
17 is an enclosure. We submit we have shown that Gilbert has the required first
18 and second chambers.

19 This one, I will confess, the sealing element, I don't quite understand
20 their argument, Your Honor. But what we show here on Slide 48 is what we
21 pointed to as a sealing element. The claim requires a sealing element
22 forming a partition between the first and second chambers, and we've shown
23 that here on page 46 of the petition. We point to a hollow shank 25, threads
24 26, and shoulder 27, that act as a sealing element as required by Claim 1.
25 That's what we point to.

26 What Dr. Garris points to is, he's got this colored figure in his

1 declaration, and it's repeated, or reproduced, in Petitioner's reply at 10. He's
2 pointing to that blue shank as a solid piece, but actually it's hollow. If you
3 understand how the drawings work, it's actually not a shank. It's a hollow
4 piece. And so, they don't really argue that our shank, thread, and shoulder
5 are a partition. They make up this other partition and say, well, if this is the
6 partition, then it doesn't meet the claim. Again, that's -- that's a straw man.
7 We're not arguing these parts. We argued what I showed on Slide 48, and
8 they just ignore that, and they say, oh no, you got to look at different parts
9 and say well, that's what's doing the sealing. And then, we disagree. We
10 believe that we have shown the requirements of the claim, and we don't
11 believe this straw man argument is persuasive.

12 The last argument that they make on Ground 1, Your Honors, is that --
13 I alluded to this early on in response to your question, Judge Kalan, fluid
14 versus vapor. The claim requires the bulb to heat a fluid. And we explained
15 in our declaration, and also, we showed in Gilbert at page 47 of the petition,
16 Gilbert discloses circulating the fluid around the heating element in a
17 turbulent manner to suitably raise the temperature of the inhalant mixture.
18 So, in other words, heating of fluid, that's all the claim requires. Gilbert
19 shows that.

20 What they argue now is that they say, well, fluid can't combine with
21 air before contacting the bulb; it's got to be in liquid form. This is an excerpt
22 on Slide 52 of their PO response at 24. They argue that in order to meet the
23 claim, the fluid can't combine with air before contacting a bulb. But that's
24 nonsensical. First of all, it's a negative limitation that's not in the claims.
25 The specification doesn't have any lexicography or disclaimer or anything
26 that says fluid means pure liquid with no air, and there's nothing in the

1 prosecution history that would support that argument. This is Slide 53.

2 But even worse, Slide 54 has got excerpts from Dr. Garriss' deposition
3 that we took, where he admits that the '788 Patent works the same way. Air
4 is sucked into the device when the user takes a draw. That air then mixes
5 with liquid from the fluid storage area, and that mixture of air and liquid is
6 heated by the heating element, and then it's inhaled by the user. So, to say
7 that the claims must be pure fluid with no gas at all is completely divorced
8 from any of the intrinsic evidence here, and including extrinsic evidence, Dr.
9 Garriss' deposition that we cite on Slide 54.

10 And then again, on this bulb heating fluid, they make this vaporization
11 argument again that I already talked about. The claims don't require
12 vaporization. The claims only require heating of fluid. And they say, well,
13 Gilbert is the inverse of the '788, because it's not designed to vaporize any
14 fluid. Its heating bulb is designed to raise the temperature of the mixed air.
15 But none of that's in the claim. Claim just says the bulb heats a fluid. And
16 we've shown that in spades in our references, Your Honor.

17 And again, Slide 56, here's the claim. You can see for yourselves, no
18 vaporization recited in the claim. It's not proper to argue patentability based
19 on an unclaimed limitation. I'll reserve the rest of my time, Your Honors,
20 unless you have any questions for me.

21 JUDGE KALAN: I don't see any other questions. And you have 20
22 minutes remaining for your rebuttal.

23 MR. MAIORANA: Thank you, Your Honor.

24 JUDGE KALAN: Thank you, and Patent Owner, whenever you are
25 ready, you may begin.

26 MR. LOTTENBERG: Sure, Your Honor, let me just briefly share.

1 Hopefully, everyone can see this. Okay, and I'm likely going to jump
2 around quite a bit in the presentation, obviously as a reply, as a response to
3 Petitioner's arguments. So, forgive any eye-bleed with the scrolling.

4 I think the there's two main issues that we're addressing here with
5 Petitioner's arguments. Number one is sort of the physical substitution
6 argument they repeatedly make. And Petitioner's Counsel took a lot of
7 effort to raise and continue to use the word straw man, but the issue that we
8 have with Petitioner's brief is they did not present any valid arguments about
9 how a substitution would or could be made. They simply say that a
10 substitution happens and that people would know how to do that, but they
11 don't provide any actual technical explanation of how that substitution would
12 occur. The petition on its face, which must establish, by a preponderance of
13 the evidence, invalidity, simply doesn't do so because they fail to provide
14 any explanation of how a substitution would be made. They just say it
15 would happen.

16 And that is part of the reason why Patent Owner had to go to great
17 lengths to explain to the Board why a substitution wouldn't work. So,
18 Petitioner sets up an argument of substitution without giving an explanation,
19 essentially putting the onus on -- which Patent Owner doesn't carry, to
20 show various ways that substitution could be attempted but would ultimately
21 fail, and would violate case law that we cited, including -- forgive me, *In re*
22 *Ratti* and *Microsoft versus Philips*, which basically says, you know, it's the
23 age-old argument, you can't destroy the structure and function of the prior
24 art to achieve an obvious combination.

25 The second main issue that we're facing with Petitioner's argument is
26 the ineffectiveness of the evidence provided in support of a motivation to

1 combine. The evidence that Mr. Kodama presented postdated the effective
2 filing date and the constructive invention date of the patent. We confirmed
3 that in deposition. That was argued at great length in our briefs. He cites to
4 a journal article and several e-cigarette forum thread postings that all
5 postdated the earliest effective filing date of the patent, which was March
6 15th, 2013, which, by the way, is a day before AIA was effective.

7 I do want to spend some time on the '788 Patent to address some of
8 the questions that were raised in the opening argument. The bulb -- and I
9 don't believe my presentation has the exact quote of the bulb image, but the
10 bulb resides inside this heating assembly, which is identified as element 220,
11 and 215 is the fluid passageway. So, the heating wire is inside the bulb, and
12 that bulb is inside an enclosed, what we call the heating assembly, to which
13 the fluid passageway introduces the e-liquid, as it's called in the industry and
14 in the patent, in order to accomplish vaporization. So that perhaps lends
15 some clarity there.

16 And there's a broad description in the patent specification about the
17 heating assembly. It's mentioned several times. I can read from one section.
18 Let's see. In column 5 of the '788 Patent, the second paragraph down
19 starting at line 15, it talks about the leg of the T comprises a hollow cylinder
20 that comprises one end of the 255, and the top of the T comprises two arms
21 that hold or fix a tempered glass bulb 230 in position in the heating assembly
22 220. Inside the tempered glass bulb 230 is a heating wire 225 that heats the
23 glass bulb, that then heats the fluid that is introduced into the heating
24 assembly 220 through the fiber element. And the heating assembly is in the
25 claim. That's a claimed element of the claim.

26 So again, going back to the obviousness arguments where we think

1 Petitioner fails is on motivation. We think that that's a key issue. They refer
2 to, I believe it was the Levin reference, for the life of the heating element.
3 But ultimately, that's not what Mr. Kodama's expert testimony hinged on. It
4 hinged on a journal article talking about the potential dangers of heavy metal
5 in e-cigarettes, and it relied on forum thread posts. And again, all those
6 references postdate the effective filing date and the constructive invention
7 date of the patent.

8 I think it is important to point out that Gilbert is what we would call
9 an electric cigarette, or an electric inhalation device, versus Lee, which is an
10 electronic cigarette, Levin which is an electronic vaping device, and Cohen,
11 which is also an electronic vaporization device. At the beginning of
12 Counsel's argument, he referred to the '788 Patent as describing a basic
13 vaporizer. So, to the extent that the claim requires heating, it's clearly
14 understood that this is a vaporization device, and heating is a natural element
15 of, a requirement of vaporization, but we'll explain in a moment how Gilbert
16 doesn't accomplish that. Gilbert's purpose is completely different.

17 So Gilbert, what Gilbert does is essentially provide a fluid-filled
18 cartridge, which is the green element here, which emits flavoring into the
19 surrounding air. And it's very clear in the Gilbert reference that that's what's
20 happening. And it makes reference to mixing ambient air with flavoring
21 from the impregnated cartridge. So essentially what's happening is, you can
22 think of it as a Vicks VapoRub, where you have a menthol material that's
23 absorbed -- and it's referred to as a ceramic flavor cartridge. It's emitting,
24 just naturally, a flavoring into the air.

25 The air is drawn in, mixed with the flavoring, and that flavored air is
26 warmed over this elongated bulb. And this is much like a, almost like a

1 radiator, this type of bulb design. It requires an elongated bulb as shown in
2 order to have enough surface area to effectively warm that flavor-containing
3 air. So, that is not fluid-containing air. It is flavor-containing air, which is
4 emitted from the fluid, which is impregnated in the cartridge.

5 So, Patent Owner did spend a long time explaining sort of that the
6 '788 Patent is the inverse. The '788 Patent brings fluid, which is in most
7 cases a liquid, that has to touch the outside of the bulb in order to vaporize
8 that liquid, and then the vapor is mixed with air and drawn out. So, it's not --
9 it requires a heating step first, before it's mixed with the air and drawn out.
10 Whereas in Gilbert, again, it's flavor mixing in the air, and then being drawn
11 across the bulb.

12 JUDGE KALAN: Sorry, you just made a distinction between fluid-
13 containing air and flavor-containing air.

14 MR. LOTTENBERG: Yes.

15 JUDGE KALAN: What is the difference, and what form does the
16 flavor take in the air when it's flowing through this device?

17 MR. LOTTENBERG: Well, in Gilbert, the flavor would be a gas.
18 So, it's a essentially a volatile material that would be emitting a material into
19 the air. In my view, it's a gas. I believe that Mr. Garris addressed that issue
20 as well. So, in other words, it's not the material that's impregnated in the
21 flavor cartridge that is getting into the air, it's the flavors emitted from it.
22 And again, it's mixing with air before it's drawn across the heating element.
23 We don't -- the '788 has to heat the fluid in order to create an active event.
24 And that's the purpose of the bulb.

25 JUDGE KALAN: That was my next question about the requirement
26 in Claim 1 that there be a fluid. You were saying the gas, or whatever is

1 present in Gilbert, would not meet that requirement; is that correct? Or --
2 sorry, and if that's not being relied upon by Petitioner in their combination, if
3 you could address that as well.

4 MR. LOTTENBERG: Well, I think that they are assuming that it's
5 the flavoring in the cartridge that's -- or excuse me, the fluid in the cartridge
6 that's being drawn across the bulb. And that's not necessarily what Gilbert
7 says. In the '788 Patent, the fluid is liquid, ultimately. That e-liquid, which
8 is a glycol material that sometimes contains nicotine and other flavorings,
9 okay, that liquid touches the bulb. It's then vaporized, then it's mixed with
10 the air that's being drawn through, and it's being drawn out of the
11 mouthpiece of the product.

12 JUDGE ROSS: Where does it say that that's required in the claims?

13 MR. MAIORANA: The claims state -- it says that the heating wire
14 heats the bulb, and wherein the bulb heats fluid introduced to and coming in
15 contact with the bulb through the fluid passageway. So, the claim makes a
16 distinction about a fluid passageway, which is -- and there's different
17 versions of it described in the spec. One is a fiber element that uses
18 capillary action, but the claim is broader than that. It's a fluid passageway
19 that --

20 JUDGE ROSS: I see what your argument is, but I'm looking at the
21 claim language, and the claim language looks broader than that. I don't see
22 fluid passageway. I don't see that the fluid, you know, contacts the bulb. I
23 don't see a lot of the things that you're arguing here.

24 MR. LOTTENBERG: In the claim, you don't see, Your Honor?

25 JUDGE ROSS: Oh, I'm sorry, I see it now. Okay.

26 MR. LOTTENBERG: Okay. Yeah, fluid passageway is a separate

1 claimed element and then it's brought back on the last part of the claim.

2 JUDGE ROSS: Okay, I see that now.

3 MR. LOTTENBERG: Okay.

4 JUDGE KALAN: So, I was going to ask about that part of the claim
5 as well. And in the context of Petitioner's combination, where it appears
6 they're just saying, we're bringing the bulb of Gilbert in, but everything else
7 remains the same as in Lee, does it matter what's flowing around that bulb in
8 Gilbert?

9 MR. LOTTENBERG: Does it matter? Well, it does, because to bring
10 that bulb into Lee, and we can get into whether that combination works,
11 right, Lee has this fluid -- let's pull that up. See if we can get there.

12 Okay. In Lee, you have what I would call a fluid sump, okay?
13 There's a chamber here that contains the e-liquid. That fluid goes through
14 the fibrous material around which the heating element is wrapped. So,
15 there's no fluid passageway in the sense of our patent, which is drawn
16 directly to the bulb. This is an air pathway. It looks similar to what's in the
17 '788 Patent diagram, but in the '788 Patent diagram, this is actually the fluid
18 passageway, the active ingredient passageway. In Lee, it comes around the
19 side.

20 So again, you go back to this concept of substitution and how simple
21 it would be to do, but they don't really even explain how that substitution
22 would happen. So, we had to go to great lengths to present some ideas to
23 show that substitution is actually quite difficult, right?

24 So again, you go to Lee, you've got a fiber element around which you
25 have a wire wrapped, okay? And the suggestion to replace this assembly in
26 its entirety with an encapsulated heating wire, a bulbed heating wire, you're

1 going to cause a lot of problems. Number one, you've got to get rid of this
2 fiber element here, or you've got to replace it so that it's going around the
3 outside of the bulb. And it really has nowhere to be held, because in this, the
4 physical structure of the fiber element is at least in part retained by that wire.
5 It's actually a tight wire. And then the other issue is, you're going to have
6 exposed holes here, and you're going to have flooding of this chamber. So
7 you're going to have -- you're going to have a bulb that's basically
8 submerged in fluid, and it's not going to work very well. And we went to
9 great lengths, and Dr. Garriss' declaration talks about the flooding issue.

10 So, you've got to solve a lot of problems. You've got to cover these
11 holes, you've got to figure out what you're going to do with the fiber
12 element. If you're going to keep it, it's got to go around the bulb in some
13 way. The other thing is, with Lee is, that there are these support structures
14 that are holding the heating element that are there. So, you've got to figure
15 out what to do with those, and how those are going to implicate your change
16 to throw the bulb in there.

17 JUDGE KALAN: Could you possibly address this in the context of --
18 well, two things. In the context of Petitioner's Slide 27, first, they say that
19 you're making a new argument here in your sur-reply regarding operability
20 and modification. But second, it seems like that figure, if you can first
21 address the new argument piece, that figure is illustrating some of what
22 you're talking about. And it would be helpful to have you walk through it,
23 perhaps in the context of that figure on the right-hand side of Slide 27 of
24 Petitioner's.

25 MR. LOTTENBERG: Yeah. Forgive me, let me --

26 JUDGE KALAN: Yeah, I have it up, but I know you're --

1 MR. LOTTENBERG: Yeah, just give me one second. Let me just
2 see if I can quickly -- I do have it. Slide 27? Okay. So, many of the -- a lot
3 of this was actually -- excuse me. A lot of this was presented in Dr. Garriss'
4 original expert opinion, and in our -- and in our response. In general, we
5 presented several options and questioned, and Dr. Garriss doubted the ability
6 of one with skill in the art to make an easy substitution. And again, in
7 Petitioner's opening brief, there was no explanation whatsoever given about
8 how to substitute other than to say you would substitute.

9 So, to the extent -- I don't believe it's a new argument. I believe what
10 we're doing is we're countering the position that a mere substitution is quite
11 that simple and would be obvious. We're presenting options to show what
12 would happen if you had to do that, if you had to take this effort.

13 I do think that the issue with the collapsed fiber end is, again, it's an
14 example of what would -- what would have to be addressed by a person with
15 ordinary skill in the art in order to accomplish a substitution that Petitioner
16 suggests is quite simple. And again, Mr. Kodama does not -- does not
17 present any substantiated evidence about how a substitution would be made,
18 other than to say anyone would know how to do it. And that could be true,
19 but without an explanation of how they would do it, Petitioner's argument
20 can't stand. So again, like, I don't have such a problem with saying someone
21 with ordinary skill in the art could do it, but if you don't explain to me how it
22 might be accomplished, that doesn't satisfy the obviousness requirements.
23 So, that's what we're pointing out there. And I will --

24 JUDGE ROSS: Let me just interrupt you for a second, again. I cut
25 out a few minutes ago, so I want to -- I think you were talking about this,
26 and if you weren't, I apologize. But I'm kind of interested in what you were

1 talking about with flooding. Could you explain that a little bit to me?

2 MR. LOTTENBERG: Yeah. Forgive me if you guys are seeing my
3 screen. Okay, so I think we're back. Here. Okay. So, I mentioned that in
4 the '788 Patent, you see this similar T structure in the '788 Patent, but the
5 equivalent tube here is actually the fluid passageway that brings the e-liquid
6 to the bulb inside the heating assembly. That uses either a capillary action or
7 fiber action or a tube dripping action that's directed directly onto the bulb. If
8 you remove, in Lee, if you remove this fiber element, which is essentially
9 punched through -- there's two holes here, okay? If you remove that, you
10 will get flooding, because you don't have that fiber element to resist the flow
11 of fluid into this chamber.

12 So again, you have a sump of liquid here that goes into, let's call it the
13 heating area here. So, you've got to pull this thing out, put a bulb around the
14 heating wire. Then, you've got to address these holes here, figure out how
15 you're bringing that liquid to the bulb in an efficient way that will work,
16 and/or you've got to reconfigure that fiber element if you're going to keep it.
17 And the fiber element -- JUDGE ROSS: Has Petitioner said they're
18 removing the fiber element? I thought they were keeping the fiber element.

19 MR. LOTTENBERG: They might try, and if they're going to keep it,
20 they're going to have to figure out a way to have that go transversely across
21 that bulb.

22 JUDGE ROSS: And what is the structure 14 that the figure is
23 pointing to? Is that just, you know, the exterior of a chamber?

24 MR. LOTTENBERG: I believe so, yes.

25 JUDGE ROSS: Okay, thank you.

26 MR. LOTTENBERG: So, just getting back on track here. We did

1 talk at length in the briefing about the air inlet provided on the external wall
2 of the casing issue that was raised in the decision, and I think it is -- again,
3 we must look at what the petition originally said and whether that
4 establishes, based on a preponderance of the evidence, invalidity. And they
5 relied on those three air inlets of the fluid cartridge as the air inlets. They
6 did not posit an explanation at that point that there was some other air inlet
7 on the end of the tube. So again, you have to look at the petition to
8 understand that there.

9 JUDGE ROSS: But you don't disagree, do you, that the air that's
10 coming in those air inlets that they identified in the petition actually comes
11 through some kind of opening at the end of the tube, right?

12 MR. LOTTENBERG: Well, I think that our expert says that makes
13 sense, but it's not actually described in Gilbert as being as such. And I think
14 that's the reason why Petitioner was left no choice but to rely on the air inlets
15 of the flavor cartridge.

16 And frankly, by relying on the air inlets, it kind of goes into the
17 chambering argument. It's really a three-chamber system. You know, I
18 understand that Petitioner is saying, well, if our claim only requires two and
19 the prior art has three, that doesn't really matter. But, there is a partition, the
20 partition which we argued is at 18. There's a shoulder here that holds the
21 flavor cartridge in, and if there is a partition, that would be it. This is not a
22 partition here. This is not a sealing member here. That's basically a thread
23 that holds the bulb onto the battery socket. And if there were a chamber
24 created here, it would be actually concentric. It wouldn't be left and right.

25 And you know, we talk about new arguments or forfeited arguments,
26 again with the air inlet. They say one thing in the opening brief, and they

1 say something else in the reply. We have to go under the relevant case law
2 with what's in the opening brief. And the *Netflix* case is instructive on this.
3 I won't go too heavily into the case law. We've briefed this pretty
4 significantly, but I think it really also gets into the substitution argument that
5 there's a vagary about the petition, again with the substitution, with no
6 technical explanation provided in legal argument or by Mr. Kodama about
7 how substitution would be accomplished, other than to say you would plug it
8 in there.

9 And so, again, I mean, we can go back to the elongated bulb. I do
10 think it is relevant that Gilbert has this elongated bulb, and I -- forgive me,
11 I'm jumping around between references, but I do think it's relevant because
12 of what the action of Gilbert is intended to accomplish. The structure
13 dictates what the intention is, and that's to have this elongated bulb for
14 maximum surface area in order to keep that flavoring air mixture warm
15 throughout the entire process as it flows down. The '788 Patent doesn't rely
16 on that action. The claims don't rely on that action.

17 So again, going back to the combination. This is what Kodama says,
18 that it would have been an elementary swapping of one for another, with
19 really no explanation about how to deal with the support structures in Lee,
20 which we pointed out, it's element 132, how to deal with the fiber element,
21 how to deal with the wire element. And frankly, that configuration of the
22 fiber, wire wrapped around the fiber, is specifically, you know, it's really just
23 a different design. And that's a specific design to what Lee is concerned
24 with. Lee actually talks a lot about an electrical contact and a switch for an
25 e-cigarette, but they focus on a very specific heater, which is a wire wrapped
26 around a fluid containing member, fibrous member.

1 And again, here is where Dr. Garris, our expert, gets into an
2 explanation about, you know, you have these support structures here, how
3 are you going to eliminate this wire with this -- and this is from Lee directly.
4 It's annotated with coloring. But, how are you -- how are you going to
5 address these different structural requirements: supply passage that has two
6 through-holes formed on the circumferential surface to allow the fiber
7 assembly to pass, the nicotine solution stored inside the storage housing, and
8 the outside vaporization unit may be supplied to the heating element. You
9 have to accomplish a big change, a major change that essentially destroys
10 what Lee is, to put a bulb inside.

11 Levin similarly. So Levin -- again, we were left with a situation
12 where they're arguing mere substitution without providing any explanation
13 of how the substitution would be accomplished and what elements would be
14 substituted for what. So again, Petitioner's Counsel raises this buzzword,
15 straw man. We're left guessing, and I -- and I think the Board may be, too,
16 as to how that substitution would be accomplished.

17 And when we look at Levin as a reference, okay? Levin is a
18 vaporization device designed for ground solid material, whether it's tobacco,
19 cannabis, anything like that. That's what it's designed for. It does criticize
20 conduction. It criticizes direct contact between the heating element and the
21 solid material. Primarily, it identifies the issue with caking. The reason
22 there's a caking problem is because they're dealing with solids. So, its
23 suggestion is to is to move the heater outside of direct contact and create a
24 convection-type system. Essentially, you've got a ceramic container, and
25 you put a heater on the outside of that, and that design is obviously quite
26 different, because you've got a heating element, and the substance is inside

1 another container. And again, to make a substitution without explaining
2 how, doesn't carry the burden that Petitioner must carry.

3 Have the same problems incorporating this so-called bulb into Lee.
4 It's the same arguments that we had with respect to Gilbert, essentially, that
5 you have to accomplish so much that you're destroying the inherent nature of
6 the inventions.

7 There is significant case law on -- and I don't intend to -- and we
8 didn't take the position that Mr. Kodama was not qualified or didn't have the
9 expertise to render the opinions, but what we're saying is, it's unsupported
10 conclusory allegations. And those were repeated in the petition. And under
11 the Xerox case, the Board does have discretion to either disregard or give
12 little weight to the testimony that really fails to provide factual support or,
13 you know, really any technical discussion.

14 And again, I want to go back to the motivation to combine issue,
15 because this was a -- this was a glaring concern. We addressed this in
16 deposition. Mr. Kodama presented in his original opening expert opinion,
17 evidence of motivation to combine, which was to deal with the potential
18 taste and fumes issue associated with metal on e-liquid reactions. And so, he
19 presented a journal article here, which we had the abstract of, called "E-
20 Cigarettes as a Source of Toxic and Potentially Carcinogenic Metals." And
21 then there were three, like, I called them forum threads. These were
22 essentially industry -- or excuse me, two industry threads and the journal
23 article here.

24 And we established in deposition testimony number one, he admitted
25 he didn't read the entire journal article. He appeared to just read the abstract
26 and relied on that in the expert testimony for his expert declaration. He also

1 admitted that nothing in this journal abstract related to a glass-covered
2 heating bulb or any sort of covered heating element. And there really wasn't
3 anything -- he also admitted that there was nothing on this page that
4 discussed the construction of the e-cigarette. So, no reference to the actual
5 full journal article was relied on by Mr. Kodama. He admitted he didn't read
6 the journal article. He relied on the abstract, but nothing in that abstract, he
7 admitted, related to glass heating bulbs or covered heating elements for e-
8 cigarette purposes.

9 Similarly, he, well, he also had admitted that the date of this, which
10 was 9/26/2016 was well after the effective filing date of the patent, which is
11 again, March 15th, 2013. Similarly, we went over with Mr. Kodama the
12 forum threads. He admitted that these were all postdated, and he also
13 admitted that nothing referred to the concept of a glass bulb heater. So, to
14 the extent that these might be useful for showing that somebody recognized
15 the potential issue with direct metal contact, it was after the date of the
16 patent, and none of this evidence suggested a solution being a covered bulb.
17 Again, he admitted that -- that all this was postdated.

18 And the case that Petitioner relied on for the supposed ability to rely
19 on postdated materials as evidence of motivation to combine, that case was
20 not a motivation to combine case. It was an enablement case where the
21 Federal Circuit, you know, gave some guidance on relying on postdated
22 materials. It's not an obviousness case, and it's not a motivation to combine
23 case. I think that's it. I'll cede the rest of my time, unless you guys have any
24 questions.

25 JUDGE KALAN: Now, I have you with 16 minutes remaining of
26 your 50 minutes. So, I will give that back to you in sur-rebuttal. And

1 Petitioner, I have you with 20 minutes remaining for your rebuttal time, and
2 you can begin whenever you're ready.

3 MR. MAIORANA: Thank you, Your Honor. Okay. So, thank you,
4 Your Honors. I'm going to address some of these points, starting off with
5 this criticism that we heard about we didn't explain how to make a bulb work
6 in Lee. First of all, we did. I pointed out in my remarks that Mr. Kodama
7 explained that in, for example, in Exhibit 1003 at paragraph 127.

8 Also, I wanted to make the point, I talked about this in my opening
9 remarks, we have Slide 5 on the screen. The '788 Patent doesn't explain to a
10 POSA how to make a bulb work. This is it. Figure 3 and this one blurb
11 from the description of Figure 3 in the '788 Patent, that's all they tell a
12 POSA on how to make a bulb work in their device. And the reason that they
13 don't explain more is because, as we all know, patents are written to people
14 of skill in the art. So, the inventors in the '788 Patent presumed a POSA
15 would understand how to make a bulb work in an electronic or electric,
16 whichever word you want to use, cigarette.

17 So, this is all in our view, Your Honors, it's a red herring. Dr.
18 Kodama, as I mentioned, he is one of the pioneers in the e-cigarette industry,
19 designing e-cigarettes as far back as the priority date of the '788 Patent.
20 And he provided testimony that a POSA would understand how to make this
21 simple substitution of a bulb for the coil-wrapped wick of Lee. Now, I want
22 to talk about this additional references issue. Go to our Slide 20.

23 JUDGE KALAN: Before you move on to that issue, if the
24 combination does in fact rise to the level of inoperability, then there's a
25 different problem. If you could address, for example, the flooding issue that
26 Patent Owner identified? I know it's in your briefs, but just to walk through

1 why the problems identified by Patent Owner aren't actually problems rather
2 than, well, it could just be swapped out. It seems like the Patent Owners
3 have identified a number of issues that would make the combination -- could
4 make the combination rise to the level of inoperability.

5 MR. MAIORANA: Right. And your use of the word "could" is
6 important there, Your Honor, because this is all just pure speculation, right?
7 I'm looking at. I believe it's our Slide 27. So, I'm showing Slide 27. This is
8 their, what we call the collapsed fiber end argument that was new in the sur-
9 reply. They could have made this argument in the Patent Owner response,
10 by the way. Counsel's explanation for why they didn't really move the
11 needle in our view, respectfully.

12 But, putting that aside, the only difference here between how Lee
13 operates and how our combination of Lee with Gilbert and Levin in using a
14 bulb is that instead of having the fiber go all the way through a coil-wrapped
15 wick, which is what Lee had, you have a bulb instead. And so, if there's
16 flooding in this, why isn't there flooding in Lee? Lee doesn't say anything
17 about flooding. They don't even argue that Lee has flooding. So, simply
18 substituting a bulb for the coil-wrapped wick of Lee is not going to create
19 any flooding. They provided no evidence it would create any flooding.

20 The flow of the liquid is determined by the capillary force within the
21 fibrous material. We're using the same fibrous material that Lee used, as
22 you pointed out, Your Honor. There was some mention that maybe we
23 weren't using the fiber. That's not true. If you look at the papers, it's clear
24 that the only change we're making is substituting the bulb heater for the coil-
25 wrapped wick, and that the rest of Lee's structure would function exactly the
26 same way that it does in Lee's structure.

1 And I also want to point to Exhibit 1026, which is Mr. Kodama's
2 second declaration, paragraph 30. He explained why these concerns, at least
3 the ones they made in the PO response, were not problematic from the
4 perspective of a POSA. And so, we don't think that this interoperability
5 issue should even be considered as a matter of law. That's not a valid
6 argument in an obviousness. Now, if they rise to the level of not
7 enablement, which I don't think the argument is what we're hearing here, this
8 is just well, it would have been hard to make the combination. That's what
9 Counsel said. That's not a valid argument here, particularly given that the
10 '788 Patent itself doesn't tell a POSA how to use a bulb in its own device.
11 It's presuming that a POSA would understand how to make that
12 combination. That's exactly what we're saying here as to these
13 combinations.

14 I want to address the additional documents point. Turning to our
15 Slide 20. Mr. Kodama provided an explanation for why a POSA would have
16 been motivated. I explained that in my opening remarks, Levin tells you a
17 clear reason why you don't want the material touching the wire, and Mr.
18 Kodama explained that using a bulb avoids that problem. The additional
19 documents that he cites, we're not relying on those in any combination of
20 references. You don't need them to evaluate Mr. Kodama's testimony. That
21 testimony stands alone. So, this whole issue about their postdating the
22 patent and all that is irrelevant.

23 And we also point out that Dr. Garriss didn't contest anything that Mr.
24 Kodama said about dry hits or exposed wires. He didn't contest any of that.
25 This is just an argument from the lawyers that, well, you can't rely on these
26 later published documents. But we don't need the later published documents

1 for Mr. Kodama's testimony to be persuasive here. And they never moved
2 to exclude these docs. So really, this is just a question of what weight, if
3 any, Your Honors will give to those documents. And we would submit
4 there's ample case law explaining that you can rely on post priority date
5 documents to explain what the prior art teaches.

6 And just one example of a very well-cited case is *In re Wilson*, which
7 is 311 F.2d 266 at pages 268 to 69. That's CCPA 1962. And that case has
8 been cited scores of times by the patent office and by the Federal Circuit for
9 that proposition. So, it's really a red herring, this additional documents
10 thing. You don't need them. We don't need them. They're just confirmatory
11 of Mr. Kodama's testimony.

12 JUDGE KALAN: So, thank you for providing that additional citation.
13 Is that in addition to the other case that Patent Owner criticized for having to
14 do with reasons other than motivation to combine? Or is that criticism by
15 Patent Owner still going to be a problem in this discussion of the documents
16 that Mr. Kodama relied upon?

17 MR. MAIORANA: No, I don't -- it's in addition to that case. I mean,
18 reasonable minds can differ as to what a case discloses. But the broader
19 point here, Your Honor, is that we're not relying on any of those documents
20 as prior art. We never said they're prior art, and they're not part of our
21 combinations. So really, it just goes to whether you give them any weight in
22 evaluating Mr. Kodama's testimony.

23 We don't think those documents are necessary. We cited them as sort
24 of belt and suspenders or confirmatory. But certainly, the fact that we cited
25 those doesn't sink anything that Mr. Kodama says. It doesn't contradict
26 anything he says. It was just used as confirmatory. And again, Dr. Garriss

1 didn't contest anything that Mr. Kodama said. What's on Slide 20 is more
2 than enough, in our view, to support a motivation to combine here in Ground
3 2.

4 The next point I want to make is about Gilbert and fluids and all that.
5 Gilbert discloses that column 1, lines 23 to 29, this is Exhibit 1004, quote,
6 circulating fluid around the heating element, end quote. All of this stuff
7 about fluids or not fluids or any of that, that's all a red herring. It's irrelevant
8 to the claim at issue. Claim 1 just says a fluid. And frankly, the argument
9 we heard today is a new one. They've never argued that fluid doesn't contact
10 the bulb in any of our combinations. What they argued is that fluid and air
11 together contact the bulb, and the claim supposedly requires fluid only.

12 Well, first of all, I pointed out, the claim doesn't require fluid only.
13 It's not limited to fluid. It says that a fluid contacts the bulb. We've shown
14 in Gilbert and all of our references that fluid contacts the bulb, but this new
15 argument today that no fluid contacts it because of air pressure or other
16 things, that's a new argument we never heard before. But we rebutted the
17 argument that they did make, which is, it doesn't matter if it mixes with air
18 first. The claim doesn't exclude that. The spec doesn't exclude it. There's
19 nothing in the file history that excludes it. So, it's really just a red herring.

20 This issue about electronic versus electric, again, that is just another
21 red herring. The claim, which I'll put up on the screen real quick, the claim
22 says, an electronic cigarette comprising. And that's the only mention of
23 electronic anywhere in this claim. It doesn't have any bearing on any other
24 limitation. So, electronic versus electric versus vaporizer versus this, all
25 those things that Counsel raised are irrelevant. They're red herrings intended
26 to distract away from the very simple issue that's being presented to Your

1 Honors here.

2 Now, about the air inlets. Counsel said, well, it's not really clear
3 whether air enters the casing of Gilbert. That's not true. Gilbert would not
4 work, full stop, if air did not enter the device. There's no way around that
5 for the Patent Owner. They try to argue we weren't clear enough. I thought
6 I explained in my remarks that we were clear, and we clarified that on reply.
7 We think it's clear in the petition, but, air goes through the air inlets in the
8 fluid containing member and then through the outer casing of Gilbert.
9 Otherwise, it would not work.

10 Now, the last point I want to make. Slide 5, I talked about this
11 already. Again, the specification of the '788 Patent. This is it for what it
12 says about the bulb. It's on our Slide 5, annotated Figure 3. They say that
13 we should lose here because we didn't provide any explanation for how a
14 POSA would put a bulb into Lee. First of all, that's not correct, and I've
15 explained in my remarks in our slides and in our briefs, where Mr. Kodama
16 did point to that, in particular paragraph 127.

17 But, the point I want to leave you with is, the '788 Patent itself
18 presumes that a POSA would understand how to implement a bulb in a
19 device like this. And the reason that they do that is because it's well within
20 the skill of a person of ordinary skill in the art, as Mr. Kodama said, and as
21 he is. And we submit that the four challenged claims here should be
22 canceled. Unless you have any questions, I will concede the rest of my time.

23 JUDGE KALAN: I don't see any questions from the panel. So, thank
24 you for your presentation, and we will give the floor back to Patent Owner's
25 Counsel. You have 26 minutes remaining for sur-rebuttal, and I'll start the
26 clock whenever you're ready. Sorry, I think you're muted.

1 MR. LOTTENBERG: Thank you, Your Honor. Can everyone see
2 the patent up on the share screen? Okay. I'd like to address Petitioner
3 Counsel's comment that the '788 Patent, leaves it up to a person of ordinary
4 skill in the art to understand how the bulb works. That's incorrect. Slide 5
5 of Petitioner's demonstratives only focused on this paragraph in column 5 of
6 the patent, but the action of -- and forgive me, I don't know if I can move
7 that.

8 Okay. The actual action of the two cross -- and Dr. Garriss talked
9 about cross flow, where you've got air coming one direction and the fluid
10 coming the other direction, that's actually described very expressly in bottom
11 of column 5, top of column 6. It says that the air flows down the tube 55
12 and into the heating assembly 220 where the glass bulb 230 has atomized or
13 vaporized some of the fluid that is carried to the heating assembly 220 by the
14 fiber element 215. The vaporized fluid mixes with the air and passes
15 through the end cap aperture. So again, you've got vaporization first, and
16 then it's carried through. It's vaporization through direct contact.

17 Look, ultimately, and I didn't harp on this too much in my opening
18 statement because it's a very cliché term, but ultimately, we're dealing with a
19 hindsight case. The case law that we cited in the brief makes it clear that,
20 you know, the inquiry is not just whether they would have, when presented
21 with these references, made this combination or this substitution. It's really
22 whether someone with ordinary skill would have looked for this type of
23 solution and this type of prior art. It is admittedly, you know, this -- this
24 isn't extremely complicated technology, but there is some engineering and
25 skill required to make the substitutions in these small, confined spaces where
26 you're dealing with different fluid flow. You have to create enough space

1 for airflow for fluid to be controlled and not flood or suffocate the heating
2 element.

3 This is -- again, we've got to look at, what does the petition say? Does
4 the petition itself carry the burden? And there are significant issues with the
5 conclusory allegation of substitution that isn't sufficiently supported by Mr.
6 Kodama's declaration. And there are significant concerns with the
7 motivation to combine. And there are significant concerns with the ultimate
8 conclusion that you could combine three or more references to meet this
9 invention.

10 I know one of their arguments, argument one is Gilbert, and one other
11 reference. But, Petitioner's Counsel went to great lengths at the beginning of
12 his presentation to say that there was numerous prior art references that
13 weren't relied on, that talk about bulbs and vaporizers and electronic
14 cigarettes. If that were true, then Petitioner would have presented an
15 anticipation argument. But the reality is, this is an obviousness argument.
16 It's a combination of references. And in order to carry the day, they've got to
17 show that the combination could be accomplished readily, without
18 destroying what the prior art's individual inventions were really intended to
19 do.

20 We're not saying that it is hard to combine. We're saying that if you
21 were to combine, you're eviscerating what the prior art is. That's really what
22 the gist of the technical obviousness argument is. There are significant
23 evidentiary issues and burden issues in the opening brief. The attempts to
24 recapture that in the reply are insufficient. The expert relied on new non-
25 prior art references to support a motivation to combine, and there was a
26 significant portion of the brief placed on that. The action and activity of the

1 bulb in the '788 Patent is not left to one with ordinary skill in the art. We
2 gave a very specific way that that works and how that should work.

3 And in conclusion, again, we're dealing with hindsight, and we don't
4 believe the burden's been carried. We believe that the claims are valid in
5 view of the prior art cited, and we respectfully request a finding to that
6 effect. And I'll cede the remainder of my time, and that's it.

7 JUDGE KALAN: All right. Thank you, Counsel. I don't see any
8 other questions from the panel. So in that case, I'd like to thank Counsel for
9 the very thorough presentations today and for answering our questions. This
10 case is now submitted to the panel for determination and preparation of the
11 final written decision, and we're adjourned. I would ask that Counsel remain
12 on the line in case the court reporter has any questions, but for all other
13 intents and purposes, we are adjourned here. Thank you.

14 (Whereupon, the above-entitled matter went off the record at 11:37
15 a.m.)

IPR2024-01458
Patent 9,538,788 B2

PETITIONER:

John Marlott
David Maiorana
Joshua Nightingale
Kenneth Luchesi
JONES DAY
jamarlott@jonesday.com
dmaiorana@jonesday.com
jrnightingale@jonesday.com
kluchesi@jonesday.com

PATENT OWNER:

Geoffrey Lottenberg
David Colls
BERGER SINGERMANN LLP
glottenberg@bergersingerman.com
dcolls@bergersingerman.com

Thomas Fisher
Aaron Lukas
COZEN O'CONNOR
tfisher@cozen.com
alukas@cozen.com