

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

CGE GAS CONTROL EQUIPMENT INC.,
Petitioner

v.

VBOX, INC.
Patent Owner.

IPR2023-00326
Patent 11,389,614 B2

Record of Oral Hearing
Held: March 20, 2024

Before GRACE K. OBERMANN, ELIZABETH M. ROESEL, and
JANE E. INGLESE, *Administrative Patent Judges*.

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The above-entitled matter came on for hearing on Wednesday, March 20, 2024, commencing at 10:00 a.m., at the U.S. Patent and Trademark Office, 600 Dulany Street, Alexandria, Virginia.

P R O C E E D I N G S

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JUDGE OBERMANN: Good morning, and welcome to the PTAB.

It's wonderful to have you here. And I just want to let everybody know that we have read the briefs. We are familiar with the issues. If you want to dig right into the matters that are in dispute, feel free. With that said, you are free to present your arguments however you choose. But I want you to know that we have a complete access to the record here. We all have it up on our screen. So, if you need to direct us to something that's not in your demonstratives, if it's in the record, we can easily pick it up. But I just want to stress that we are very, very familiar with the record, and we know the issues.

This is a final trial hearing in IPR 2023-00326. Petitioner challenges the patentability of claims 1 through 16 in U.S Patent 11,389,614, and Patent Owner has opposed the challenge. I'm Judge Obermann, and we have today on the Panel also Judge Roesel at the end, and Judge Inglese in the middle. Before we begin, I'd like to remind the parties that this hearing is open to the public. There could be a public line, so even if you don't see them in the room, they might be able to listen in, and there will be a public record. So, please, I don't think we have any confidential information in this proceeding, but just be aware that it is public, and a full transcript of the hearing is going to become part of the public record. Also, as you know from our hearing order, each party has 60 minutes to present their case. Because Petitioner bears the burden of proof, the Petitioner's Counsel is going to proceed first, followed by Patent Owner. Petitioner, you're free to reserve part of your 60 minutes for rebuttal. And, Patent Owner, we're going to allow you to

1 reserve time for a sur-rebuttal. So, let's start with introductions. Who do we
2 have in the courtroom today for Petitioner?

3 MR. MASTERS: Good morning, Your Honor. Robert Masters, on
4 behalf of the Petitioner. And I'm joined with my colleagues, Roy Jung and
5 Timothy Cremen.

6 JUDGE OBERMANN: Welcome. Mr. Masters, will you be the
7 person presenting today, or will anyone be assisting you?

8 MR. MASTERS: I will be presenting.

9 JUDGE OBERMANN: Okay. Thank you so much. And who do we
10 have for Patent Owner?

11 MR. MURPHY: Good morning, Your Honor. I'm Timothy Murphy.
12 On behalf of Patent Owner. I'm joined by my colleague, David Atallah, and
13 we have in-house counsel for a real party and interest, Mr. Paul Kim is
14 joined remotely, as is my partner, Michael Schwartz.

15 JUDGE OBERMANN: Fantastic. Welcome. And, Mr. Murphy, will
16 you be presenting argument today, completely?

17 MR. MURPHY: I will.

18 JUDGE OBERMANN: Thank you so much.

19 MR. MURPHY: Thank you.

20 JUDGE OBERMANN: Okay. Does any party have any preliminary
21 matter that we need to discuss before we start? I'll start with Petitioner's
22 Counsel.

23 MR. MASTERS: No, Your Honor.

24 JUDGE OBERMANN: Okay. Thank you, Mr. Murphy?

25 MR. MASTERS: Same.

1 JUDGE OBERMANN: Great. Okay. With that, let's begin. It's Mr.
2 Masters for Petitioner. Please approach the podium when you're ready. And
3 would you like to reserve any rebuttal time?

4 MR. MASTERS: Yes, Petitioner would like to reserve 20 minutes for
5 rebuttal.

6 JUDGE OBERMANN: Very good. We will start the clock running
7 when you begin speaking.

8 MR. MASTERS: Good morning. Again, for the record, my name is
9 Robert Masters, and I'm here today on behalf of the Petitioner GCE Gas
10 Control Equipment Company. I would like to highlight the issues in our
11 case with a set of slides that we've already provided. And I think that it is
12 important just to briefly talk about the '614 Patent that is presented on slide 2
13 here. This part of the '614 patent shows a single embodiment of a portable
14 oxygen concentrator. We'll call it the POC. It's kind of a paper product in
15 the sense that it's just a linear display of components. As slide 2 illustrates
16 or shows, these are individual modules that are set out on this belt connected
17 by hoses, compared to a commercial product that would have some sort of a
18 shell to hide all of these embodiments and make it a compact unit.

19 Each of these, we'll talk more details of this, but each of the individual
20 components, particularly the receptacle and the cartridge, can be removed
21 altogether from this. They can snap away from this belt or snapped on the
22 belt. The Board, I'm sure, is aware there are six grounds we're challenging.
23 The primary focus today will be on the Deane reference and its teaching and
24 whether it renders obvious the claims. The specific issues as illustrated in
25 slide three refers to three claim terms. The first is referred to here as 1b(i), a
26 separation cartridge, selectively removable from a receptacle by movement

1 relative to the receptacle in a first direction. This was something that the
2 Patent Owner only addressed after the IPR was instituted. The next issue
3 refers to a claim 1e element talking about the separation cartridge configured
4 and the fluid flowing through that separation cartridge. This was the main
5 point by Patent Owner in their preliminary response. And then finally, claim
6 2 talks about the outlet being arranged adjacent to a first end of the bed and
7 the use of a spring to hold the bed in place. Again, this was something that
8 was only raised by the Patent Owner after institution of this IPR.

9 With that, I want to dive into element 1b(i). As slide 6 illustrates, the
10 claim limitation is on the top of the slide. With certain terms highlighted.
11 Separation cartridge and selectively removable, constructions were set forth
12 for these terms. However, I think there's no argument that Deane teaches
13 these terms. And -- something happened. Okay. I think there is no
14 argument that Deane teaches these terms, and therefore, there is no necessity
15 to get into the details as to the proper construction of these terms. Their
16 plain and ordinary meaning will suffice for this hearing.

17 Next, two terms that are at issue are the receptacle, which Petitioners
18 submit is a structure as opposed to a space. You can't define a space in a
19 claim. It's a structure that releasably receives or partially contains the
20 separation cartridge. It's important to note that when we're talking about the
21 movement, we're talking about movement of the cartridge from the
22 receptacle, not movement from the oxygen concentrator as a whole. It's
23 from the receptacle. And then the last term, which I think we'll spend most
24 of our time on is the phrase by movement relative to the receptacle in the
25 first direction. I should note, this is not a method claim. It's an apparatus
26 claim. And therefore, the claim requires only the capability of movement.

1 It's not an actual movement required. Moving the separation cartridge is not
2 something that the separation cartridge has to satisfy in any possible way.
3 The receptacle also is akin to an electrical plug. We have a few of those
4 around here where just the blades of the prong go into the receptacle. Rest
5 of the cord is outside. You put those, plug it in, to make contact with the
6 electrical wire inside the receptacle, and you have electricity flowing. Pull it
7 out, no more electricity flowing. Very similar to here, how the manifold
8 touches the cartridges. And we'll talk more about that today.

9 So, I'd like to next with slide 8, talk about the phrase by movement
10 relative to. I have to be honest, I hated this figure when I saw it. I thought
11 my colleague took a picture at home with his sofa. And then when I started
12 reading it more, I realized it actually comes from section 2.5 of the
13 Newtonian Physics by Cromwell. It's Exhibit 1077 in the record. But what
14 this figure illustrates and is talking about in the terms of physics is relative
15 movement of two objects. One is the purple dinosaur sitting on that sofa.
16 And then the other is the dinosaur in the truck. And even with the round
17 ball, which really we don't need to deal with.

18 The perspective is not our perspective, as we stand here looking at this
19 illustration. The perspective is, if you are in the truck, what's moving? Am I
20 moving in the truck, or is the purple dinosaur moving? Or are both moving?
21 You have relative movement. It's similar to when you're in an airplane
22 flying and you see another airplane go by. You think you're stationary, but
23 you know that and think that other airplane is going fast. But really, the
24 relative movement between the two makes it feel like it's going much faster
25 or maybe much slower if you're both going in the same direction. So,
26 relative movement is commonly used concept in physics. And it is

1 important that we keep that in mind when we talk about the claim limitation
2 at issue here. The other point, before I move on, is that the frame of
3 reference, here's the truck, does not need to be stationary. A frame of
4 reference can be moving. And that's what this particular piece of evidence
5 tells us.

6 So, how does this apply to the '614 Patent? As slide 9 shows, you
7 have the POC, which is the middle figure, and there you see the cartridge
8 separated from the receptacle already. And our hands illustration shows the
9 first direction up, second direction down. If I hold that receptacle in my
10 hand, put my other hand on the separation cartridge, I can just move up and
11 the cartridge will move up and out. That's X. Y is I can hold the cartridge
12 and just move the receptacle down. That's Y. And the third, Z, I can move
13 them both at the same time to get separation between the two. Now, the
14 Patent Owner agrees that X and Y are within the claim. They conveniently
15 say, well, Y cannot be part of the claim language, because then it's clear
16 Deane teaches that. But as we'll show, Deane teaches all three, X, Y and Z.

17 In fact, slide 10 is something that's also very important here. This
18 slide is intended to illustrate Patent Owner's reading of the claim. At this
19 stage in time, they have deleted the phrase by movement relative to the
20 receptacle. So, what I mean by that is a separation cartridge selectively
21 removable from a receptacle in a first direction. Well, as slide 9 shows, X
22 does that and Z does that. But they've completely forgot about this phrase
23 by movement relative to the receptacle. So, what does that mean? It has to
24 mean something. It can't just be there for no apparent reason. Otherwise,
25 you know, why did they add it into the claim language to get beyond the
26 prior art. I should also note, refer back to slide 9 just in Z, which is where

1 we have both moving and Patent Owner reads Z as part of the claims. That
2 means your frame of reference, which is the receptacle, is moving. So, we
3 all agree, parties agree that receptacle is your frame of reference. And that it
4 can move. And that is critical.

5 JUDGE ROESEL: The claim also requires, though, that the thing that
6 is moving has to be the separation cartridge. Right? I mean, the claim says
7 by movement. And the separation cartridge is selectively removable. So,
8 the thing that's moving is the separation cartridge, according to the plain
9 language of the claim. Isn't that right?

10 MR. MASTERS: Well, I would submit that the claim does not say
11 the separation cartridge has to be stationary. What it says is the separation
12 cartridge is removable from receptacle. Okay. Movement relative to. So,
13 what is movement relative to? I think that's the point of slide 10. It's not
14 saying that -- it does cover the situation which is slide 9, Y, where the
15 cartridge is stationary and you move the receptacle down. So, from your
16 frame of reference, which is not us looking at the paper, it's us in the
17 receptacle, we see the cartridge moving up in the first direction.

18 JUDGE ROESEL: How can you construe this language, a separation
19 cartridge, selectively removable from a receptacle by movement, to say that
20 it only requires that the receptacle move and not the separation cartridge?

21 MR. MASTERS: Because it's saying by movement relative to. So,
22 by --

23 JUDGE ROESEL: Yeah, relative to the receptacle. So, receptacle is
24 the frame of reference, as you've stated. But the thing that's moving,
25 according to the plain language is the separation cartridge.

26 MR. MASTERS: Well, that's --

1 JUDGE OBERMANN: I think we're having a problem with the
2 words "by movement" because you're trying to construe that in a way that
3 doesn't require movement at all by the thing that we're looking at.

4 MR. MASTERS: But we have to look at the claim as a whole. It
5 doesn't say by movement. That's the purpose of slide 10. A separation
6 cartridge, selectively removable from a receptacle in a first direction says the
7 separation cartridge is the one being removed. But now we say by
8 movement relative to. What does that phrase mean? It doesn't mean just the
9 separation cartridge is moving. It can mean the receptacle is moving. If --

10 JUDGE INGLESE: I'm sorry to interrupt you, but the language says
11 by movement relative to the receptacle. The language doesn't just end with
12 movement relative to.

13 MR. MASTERS: And that's a very important point. Because it's now
14 saying relative movement. And what is your frame of reference? The
15 receptacle, by movement relative to the receptacle, says the receptacle is my
16 frame of reference. I'm sitting in that receptacle, I don't know -- and the
17 cartridge is moved away or the receptacle goes down. Let's say in example
18 Y. Okay? So I'm sitting in the receptacle, I go down, somebody's holding
19 that cartridge stationary. When I'm sitting in that receptacle, what do I think
20 is moving? Am I moving? Or is the cartridge moving up in the first
21 direction? When you're sitting in that receptacle, and that's your frame of
22 reference, the cartridge is moving up in the first direction. And that also,
23 again, I go back to slide 8, where we have the explanation of relative
24 movement here. Talking about the very two identical, really, analogous
25 situations here. When it talks about in the call out at the top, we have it
26 highlighted, the purple dino, the one sitting on the sofa, in the couch, both

1 moved backwards 10 cm in one second. So, they had a velocity of minus 10
2 cm. So, I think when you apply it to this case, that phrase by movement
3 relative to the receptacle means more than just the cartridge is moving. It's
4 movement between objects A and B.

5 JUDGE ROESEL: But in the context of this patent, I mean, the
6 receptacle, at least in disclosed embodiment, is attached to a belt which is
7 attached to a human. And so, I don't really see support in the spec for the
8 example on slide 8 with the two dinosaurs and the truck moving. I mean,
9 that seems far removed from the disclosure.

10 MR. MASTERS: Well, the patent specification does not talk about
11 this at all. It has an illustration to show a belt and it has where the cartridge
12 is in that receptacle. And it shows where the two are separated. But there's
13 nothing that says that belt has to be on a person and I do this with my
14 cartridge to remove that cartridge. It could be as I showed on our first slide,
15 it says in one embodiment, sockets 218a to 218d are constructed to allow
16 each individual module 106, 110, 112, and 116 to snap onto belt 104 or
17 attach in a similar quick connect fashion. So, if we look at slide 9, the
18 middle figure there, in this example, if you take the cartridge, which is
19 shown here on the left side as 206 and the receptacle 116 off together.
20 Okay? Because those components snap on that belt together. Suppose
21 they're just sitting on the table themselves. And then you go like this, they're
22 both moving.

23 Also, as I said, Patent Owner agrees that Z where the receptacle is
24 moving happens. So, it's not just the case where you have the belt on a
25 person and you move that cartridge. Yes, that's possible. But that belt could
26 be sitting on the table, that belt could be in my hand, and I can move the belt

1 down as I hold the cartridge stationary. I mean, these are portable devices
2 intended to be moved. So, you can manipulate this in more ways than just
3 having the belt around a person or sitting on a table.

4 And referring to slide 13 again, this is where Patent Owner's sur-reply
5 page five, they state the claims encompass Petitioner's examples X and Z,
6 because in those examples, the cartridge is removable by moving relative to
7 the receptacle. But you could be moving in example Z, you have to be
8 moving either at opposite directions, or if you go in the same direction, then,
9 and if you go up, you have to move the cartridge faster than you remove the
10 receptacle. And if you go down, you have to remove the receptacle faster so
11 the cartridge can be removed out because your frame of reference is moving.

12 So, the next set of slides talk about the disassembly of Deane and his
13 teachings. And slide 15 shows Deane's embodiment, color coded, where
14 here in the left figure of figure 3, the shell 204 is removed. And then you
15 have a circuit board that's removed. And now, as you look at figure 5, you
16 have a manifold engaged with the cartridges. The specification actually
17 talks about that being integrated, and that is also referred to as the PSA unit,
18 which means it's a component that can be removed together or separately.
19 But if they're removed together, you have figure 6. And now you have
20 figure 6, it shows the cartridges intact. And if the manifold is on there now
21 you have to separate them. And when they're separated, they can be
22 separated in any one of those X, Y, or Z fashions.

23 And now, applying Deane's teachings to our X, Y, Z, which is really
24 here, little (i) to little (ii) and (iii). So, here in Deane's configuration, the
25 first direction is down and the second direction is up. Once you have what's
26 shown in the dotted red line, the PSA unit removed from the Deane

1 embodiment, you can keep the manifold stationary, and move the cartridge
2 down, if I have it in my hand. In the middle illustration, I can hold the
3 cartridges stationary, and I can move the manifold up and off. And third, I
4 can move them both at the same time to separate the two. And in each case,
5 the relative movement shows the cartridge moving in the first direction.

6 JUDGE INGLESE: I'd like to ask a question about this. So, once
7 you have gone through this disassembly process and you have the manifold
8 and the cartridge, where's the inlet?

9 MR. MASTERS: When you remove the PSA unit?

10 JUDGE INGLESE: Yes.

11 MR. MASTERS: Well, you have inlets going into the manifold, and
12 then the manifold feeds into the cartridges, if that's what you're talking
13 about.

14 JUDGE INGLESE: Right, through the feed tube. Then what
15 happens?

16 MR. MASTERS: Well, it's not operating at that time.

17 JUDGE INGLESE: I understand it's not operating, but where would
18 you say the inlet would be at that point?

19 MR. MASTERS: I'm not sure. The inlet changes from -- I was trying
20 to see if I had a figure handy to show you. Slide 43 is what I'm referring to,
21 just for the sake of -- I'm sorry, this computer. So, in the far left, figure 7A,
22 you still have the inlets and the outlets intact as they were.

23 JUDGE INGLESE: Right. And so, the feed gas flows through that
24 inlet in the manifold at the top?

25 MR. MASTERS: Yes.

1 JUDGE INGLESE: And then down through the tube 608 and then
2 into the chassis. If the chassis is removed, what happens to the feed gas at
3 that point?

4 MR. MASTERS: Well, it's no longer operating because that chassis,
5 the cartridge forms into the chassis, it directs the airflow back up, and that's
6 not going to happen in this situation. But the outlet remains sticking up, as
7 shown here in figure 7A of Deane on slide 43. So, the inlet and outlets
8 continue to face the same direction.

9 JUDGE INGLESE: Even though the inlet no longer functions as an
10 inlet?

11 MR. MASTERS: Well, it's not functioning at that point in time.

12 JUDGE INGLESE: Right.

13 MR. MASTERS: Slides 17, 18, and 19 are provided, just for the sake
14 of completeness here, that Deane talks about the PSA unit as a complete
15 unit, a component of the system, that it is mounted to the chassis. It is an
16 individually separable assembly. The assembly provides a way, as shown, is
17 a pre-formed structure in the chassis to facilitate assembly of the
18 components, to stabilize the components once they are assembled in the
19 housing. And the PSA unit is itself a component, which tells us that it can
20 be removed as a unit too.

21 JUDGE ROESEL: Petitioner, can I interrupt for one second? Can we
22 go back quickly to slide 15? I just want to make sure I understand
23 Petitioner's theory of this selectively removable. So, Petitioner is saying that
24 it's after you've removed this shell of Deane and the circuit board and the
25 chassis, and then the selectively removable is if one were to remove the
26 manifold from the separation cartridge. Is that Petitioner's theory?

1 MR. MASTERS: Pretty close. Let me see if I can be more precise as
2 to our theory. So, in the left hand, it shows the shell being removed, circuit
3 boards removed. We have now the middle figure, which is figure 5. What
4 can happen next? Can leave it like that, and you could remove the manifold
5 if you wish and leave everything else intact. That's possible. And that's
6 what Patent Owners suggest here, that that's the only way of movement. But
7 another possible way of moving Deane --

8 JUDGE ROESEL: And just to interrupt quickly, Petitioner contends
9 that satisfies the selectively removable?

10 MR. MASTERS: That can. Yes. Because of the relative movement
11 requirement.

12 JUDGE ROESEL: Yes. So, if the chassis was sitting on a table and
13 somebody disassembled it by removing that manifold upward, that's
14 selectively removable, in Petitioner's contention?

15 MR. MASTERS: Yes.

16 JUDGE ROESEL: All right.

17 MR. MASTERS: Further --

18 JUDGE ROESEL: But there's another contention you have, right?

19 MR. MASTERS: Well, the other contention is that Deane can be
20 disassembled in other ways. The next way would be that you remove the
21 PSA unit from the chassis, which is the manifold and the cartridges together.
22 And now I have in my hand the PSA unit, cartridge and the manifold
23 together. Now, I could remove those in any number of ways and certainly
24 remove the cartridge from the manifold receptacle in the relative movement
25 in the first direction.

1 JUDGE ROESEL: So, how do these two contentions satisfy the
2 requirement that the removal be selective?

3 MR. MASTERS: Because you can disassemble this unit in a way to
4 make it selectively removable. These units are made to be substituting
5 cartridges in and out by the user, not returning them to the factory so the
6 factory does them. You get cartridges, and you can replace these at home.
7 And so, they are selectively removable. They're replaceable.

8 Slide 19 is just further evidence that Deane, in figure 1, has this dotted
9 line, which is around the PSA unit, which consists of the adsorbent beds and
10 the manifold. Again, it shows that that is itself a unit that can be removed
11 from the chassis, as we just discussed.

12 We talk about, moving on to slide 22, Patent Owner's arguments, they
13 try to limit Deane to where you can only remove that manifold when the
14 cartridge is sitting in the chassis and say, therefore, only the manifold is
15 moving. But again, they're ignoring the movement relative to language.
16 Patent Owner's expert Dr. Talu conceded that the housing may or may not
17 be connected to the manifold in figure 6, when it's removed. He also talked
18 about the adsorbent, whether it would fall out or not. He said he didn't
19 know; it may or may not.

20 Dr. Talu, also on Slide 24, talks about the -- concedes that the PSA
21 unit is a component of Deane and that the components are removable. He
22 also talked about different ways that you can fasten the manifold to the
23 cartridge, again showing that that unit as a whole could be removed from the
24 chassis, and then once it's removed, you can certainly remove the manifold
25 and the cartridges in any fashion that you would like, and it's certainly
26 capable of being moved.

1 So, somewhat summarized in slide 26, if we focus on what's in the
2 dotted red lines here. Again, we would submit that just like the '614
3 Patent's embodiment satisfies X, Y, and Z with the hands, regardless of
4 what's moving, it's showing relative movement in the first direction when
5 your frame of reference is the receptacle. And as Patent Owner concedes,
6 that frame of reference can be moving. And then the bottom figure refers to
7 Deane, again, the dotted line around the manifold itself. Once you have that
8 cartridge, that PSA unit removed from the chassis, it can satisfy any one of
9 the three individual situations of what is moving or what is stationary, or
10 whether both are moving.

11 I think this is fairly important. Slide 27, where prior Examiners in the
12 parent '669 Patent, claim 38 of that application was pending, said a cartridge
13 selectively removable from the receptacle by movement relative to the
14 receptacle in the first direction. Very similar, if not identical, to the claim at
15 issue here. The Examiner said that the closest prior art is Deane, and the
16 claim was not allowed until the applicant added, amended the claims to
17 define over Deane through the use of these two parallel planes that included
18 the inlets and the outlets. So, this prior Examiner certainly found Deane to
19 anticipate or render obvious the same limitation. As I said, the '614 and
20 '669 Patents' claims are very similar in all material respects.

21 JUDGE INGLESE: Can I?

22 MR. MASTERS: Yes.

23 JUDGE INGLESE: Sorry to interrupt you. I don't think, correct me if
24 I'm wrong, but Examiner didn't actually apply Deane as a reference against
25 these claims, is that correct?

1 MR. MASTERS: My understanding -- I don't know the answer. Not
2 in a rejection, no.

3 JUDGE INGLESE: Right. They just said that Deane was the closest
4 prior art. I think it's a little bit overstating to say that the Examiner found
5 that Deane anticipated or rendered obvious, the Examiner just said in the
6 allowance that Deane was the closest prior art.

7 MR. MASTERS: I agree with you on that. But I also would submit
8 that the only way to get beyond Deane was by adding the --

9 JUDGE INGLESE: Right.

10 MR. MASTERS: -- parallel planes.

11 JUDGE INGLESE: Correct.

12 MR. MASTERS: And even -- I'm sorry, other prior Examiners talked
13 about the PSA unit being a removable gas separation cartridge in Deane,
14 that's Exhibit 1075. And then in Exhibit 1050, the gas separation cartridge
15 comprising a cartridge and containing an adsorbent material for producing
16 oxygen. Again, they were removable cartridges. To the extent disassembly
17 of the shell comes into play at all, I would show slide 30 where in the
18 parallel District Court case we had infringement contentions that the Patent
19 Owner applied the claim where you had to remove the cover from the device
20 itself, which is similar to removing the shell in Deane's teaching.

21 We know there was the parallel IPR dealing with the '628 Patent.
22 That's often referred to by Patent Owner. There are differences in the claims
23 because claim one in the '628 patent had the additional recitation of a
24 cartridge module comprising the housing and the housing defining the
25 receptacle. And here we have a more full and complete record and evidence
26 based on the Deane reference and how it applies to the claims.

1 So, the next few slides just show that, again, summarize that even if
2 we were to use the Patent Owner's construction that eliminated Y, Deane
3 teaches X and Z when you remove that cartridge. Deane only has to show
4 one of these, X, Y, or Z, we would submit, to render the claim obvious.
5 Also, this is the -- when we believe 1b(i) is properly construed, it's taught by
6 Deane, under even the Patent Owner's disassembly theory, which is that you
7 never remove those cartridges. And you would only remove the manifold
8 with the cartridges sitting in the chassis itself, which is possible, but not
9 necessarily the case. There's multiple ways that we've shown how that
10 whole PSA unit can be removed as a whole.

11 So, slide 39. This refers to whether the manifold 512 is a receptacle.
12 We submit it is a receptacle. I'm not sure how well this is being disputed,
13 but that manifold has to fit snugly on the cartridges. It has to be airtight so
14 that the fluid flows through the manifold and can be directed into the
15 cartridge, and out of the cartridge into the system, and out of the system, and
16 as an electrical prong into the electrical outlet is a receptacle. Electrical
17 receptacle, the manifold is a receptacle to receive the cartridge and create an
18 airtight flow and create that PSA unit. So, we would submit that that is
19 clearly a receptacle.

20 In my time remaining, I just want to briefly refer to the next claim
21 element. Which is whether fluid is flowing through the adsorbent material
22 or not. We would submit that as shown here in figure 7A that's highlighted
23 in green and blue, the fluid flows in to the right side of the unit, which is its
24 own channel. And it goes down and then back up through the middle of the
25 adsorbent bed. Figure 6 is a cutaway. It shows, which is highlighted in light
26 or in purple, that it's sticking outside of the cartridge itself, which is not the

1 case. It's clearly contained within the cartridge. And the blue, which Patent
2 Owner tries to say, well, that shows that there's fluid flowing through the
3 adsorbent material. That's just not a credible argument. There is no
4 description of that happening, of adsorbent material being in that inlet
5 coming down in parallel to the column before it's redirected back up. And
6 as found in the decision instituting this IPR, we submit that this argument
7 has no credibility. It's just not shown in Deane. And there's no description
8 of it in Deane.

9 And then finally, claim 2, which is slide 46 talks about the use of a
10 spring configured to hold the bed in place. Deane in figure 6 clearly shows
11 the use of a spring that would assist in holding the adsorbent material within
12 the cartridge itself. There's also several prior art references that are shown
13 here. Bassine, Appel, and Hill. All of which show springs on actually both
14 sides of the adsorbent material to hold it in the cartridge. These cartridges
15 are not new themselves. And so, to do one or the other, it would clearly
16 have been obvious to satisfy the scope of the claims.

17 And with that, I will rest and reserve the balance of my time. Unless
18 there are questions.

19 JUDGE ROESEL: You have about 30 seconds left. So, not much to
20 reserve.

21 MR. MASTERS: Did I not reserve 20 minutes?

22 JUDGE OBERMANN: Oh, you reserved 20.

23 JUDGE ROESEL: Twenty plus 30. Sorry.

24 MR. MASTERS: Okay.

25 JUDGE OBERMANN: Before you start, we'd like to know whether
26 you plan to reserve any sur-rebuttal time.

1 MR. MURPHY: Thank you. Yes, may I reserve 10 minutes, please?

2 JUDGE OBERMANN: Certainly. We'll start the clock running when
3 you begin speaking.

4 MR. MURPHY: Okay.

5 MR. MURPHY: Thank you, Your Honors. If I could summarize the
6 petition and the way that this case has gone, I would say the Petitioner has
7 raised a number of positions in the petition. And Patent Owner pointed out
8 how they're flawed. And Petitioner has scrambled since then to cobble
9 together arguments as to why the petition should be -- why the petition was
10 correct. But on close examination, none of the arguments in the petition
11 establish that the removal direction limitations are met. None of the
12 arguments in the petition establish non-contact. And many of Petitioner's
13 counterarguments, many if not all, have been fully rebutted and are directly
14 contrary to the intrinsic evidence.

15 With respect to the removal direction limitations, the claims require a
16 separation cartridge having an inlet and an outlet that face in a common
17 direction. The separation cartridge is removable from a receptacle by
18 movement relative to the receptacle in the opposite direction. The claims do
19 not recite the mere capability of movement. They recite a specific type of
20 detaching the cartridge from the receptacle.

21 In the petition --

22 JUDGE INGLESE: I'm sorry, the screen is --

23 MR. MURPHY: Yes, I made it black on purpose.

24 JUDGE INGLESE: Oh, okay.

25 JUDGE OBERMANN: Can I ask a really basic question?

26 MR. MURPHY: Please.

1 JUDGE OBERMANN: Now, I'm wondering if it slipped my mind
2 already, but are you disagreeing with your friend's characterization of
3 movement relative to the receptacle? Because when I read this claim, it
4 seems like it pretty clearly is requiring the separation cartridge to move.
5 And that the movement relative to the receptacle is because you're moving
6 this separation cartridge.

7 MR. MURPHY: That's correct.

8 JUDGE OBERMANN: All right.

9 MR. MURPHY: We're not agreeing with their position that it's
10 merely relative movement.

11 JUDGE OBERMANN: Okay, relative to the receptacle? Because his
12 argument is hinging on this purple dinosaur argument, for lack of a better
13 word, that sort of ethereally out there, people understand different relative
14 movements. When I look at this claim, this claim looks to me, when you
15 read it, that the separation cartridge is moving. And to the extent there's any
16 ambiguity, you look at the spec, and there's no support for your friend's
17 contrary view. I just want us to focus on those words, movement relative to
18 the receptacle. Because it seems to me that if this construction that your
19 friend has proposed has any legs, it's because the words "to the receptacle"
20 follow the words "relative to." But when I read that claim, it seems to me
21 that that's a pretty tortured reading, frankly. And I'd like you to focus on
22 why we shouldn't say that the movement is relative to the receptacle even
23 though those words are in the claim. Because when I read it, it looks like the
24 separation cartridge is moving relative to the receptacle. And the plain
25 meaning of that to me, unless I'm, you know -- and I could change my mind,
26 obviously. It seems to me like this claim requires movement of the

1 separation cartridge. Is there some reason that the requirement of a first and
2 second direction supports your view?

3 MR. MURPHY: Yes. So, I agree with everything, Judge Obermann.
4 I agree with your explanation. That's our main point in our briefs. I think
5 what Petitioners try to do is they engage in this hypothetical where they're
6 saying, well, if you deleted some language from the claim, it would read a
7 different way. And I agree. If you deleted language from the claim, it
8 would change the claim. You have to give a full effect to all of the text in
9 the claim. You have to give it its plain, ordinary meaning, of course,
10 consistent with the specification and the intrinsic record. If you did want to
11 engage in this hypothetical of deleting the words "by movement relative to"
12 from the claim. Would be unclear as to whether the separation cartridge or
13 the receptacle was moving. It would also be unclear what the frame of
14 reference for that movement is. So, the claim, as written, specifies which
15 component moves. It's the separate --

16 JUDGE OBERMANN: Does it, though? I mean, that's the real
17 critical issue. What is the frame of reference? Is it the receptacle, as your
18 friend has argued? Or does this requirement refer to movement of a
19 cartridge?

20 MR. MURPHY: So, it refers to movement of a cartridge.

21 JUDGE OBERMANN: Where do you get that from the plain words
22 of the claim?

23 MR. MURPHY: So, it's a separation cartridge. Selectively
24 removable from a receptacle. By movement relative to the receptacle. So,
25 it's not the receptacle that's moving. It's the cartridge.

1 JUDGE OBERMANN: Okay. And in the most concise way possible,
2 how do you address your colleague's argument that you have to read
3 "movement relative to the receptacle" to mean that everything is taking
4 place as if the receptacle is a toy truck?

5 MR. MURPHY: So, I think the most concise way to say it is the
6 claims -- I believe what my opposing Counsel is saying is that from the
7 perspective of like an ant that's in the receptacle, you would see movement
8 of the cartridge.

9 JUDGE OBERMANN: I understand that argument. My question is
10 why, when you look at this claim, would an ordinary artisan not consider
11 that you're an ant on the receptacle and that that's what this is talking about?

12 MR. MURPHY: Because the claim says by movement relative to the
13 receptacle. And if -- anything else just renders it meaningless. Then any
14 relative movement between the two components would be covered by the
15 claims.

16 JUDGE OBERMANN: That's good. Thank you.

17 MR. MURPHY: Thank you.

18 JUDGE ROESEL: But I'd like to ask another question similar to that.
19 And that is on Petitioner's slide 9.

20 MR. MURPHY: Okay?

21 JUDGE ROESEL: How can Patent Owner agree that scenarios X and
22 Z are covered by the claim but not Y? Because scenario Z, this is when both
23 the cartridge and the receptacle are moving apart. Both are moving apart in
24 the opposite directions. If that's covered, in other words, the receptacle does
25 not need to be stationary. If Patent Owner agrees that Z is covered, then
26 you're conceding that the receptacle doesn't need to be stationary. Right?

1 So, how can we square that concession with the contention that scenario Y is
2 not covered?

3 MR. MURPHY: Well, scenario Y is not covered because the claims
4 require the separation cartridge to be the movable component. And in Y,
5 you can see they've labeled the separation cartridge, which is the top
6 component. They've labeled it stationary.

7 JUDGE ROESEL: Right. But it's not the only movable component,
8 right?

9 MR. MURPHY: Right. The claims don't specify whether the
10 receptacle moves or not. So, that's why we're saying X. The receptacle is
11 stationary in X and it moves in Z. The claims don't specify if the receptacle
12 is stationary or not, but they do specify that the cartridge moves relative to
13 the receptacle. So, in X, the cartridge is moving. In Z, the cartridge is
14 moving, and the receptacle is presumably moving it in the downward
15 direction. So, that would be away from the cartridge. If the cartridge and
16 receptacle were both moving in the same direction at the same speed, that
17 would not be covered by the claims, because the cartridge would be moving,
18 but not relative to the receptacle. So, that's a scenario they did not put up
19 there, which we would agree is not covered by the claims.

20 A couple more points on this. I believe the genesis of kind of this
21 contorted backwards argument is Petitioner's -- if you read the petition, they
22 said, Deane's figures teach, to one skilled in the art, that there is movement
23 in the first direction. Deane's figures teach it. They had another argument
24 about how it'd be obvious to keep the separation cartridge and manifold
25 airtight. I'll address that in a moment. So, I think what happened is they
26 looked at this exploded view, which is Deane's figure 3, I believe. And they

1 didn't realize that in the text, Deane says, hey, that chassis sits on a floor or
2 table. It's got rubber isolation feet.

3 Oh, and Deane, by the way, doesn't permit you to move the unit
4 sideways or upside down. Its shell is specifically designed to prevent users
5 from setting the unit on its side or upside down because Deane's unit won't
6 work properly in that instance. So, then Petitioners have gone down this
7 path of, oh, well, now that you've pointed that out, the claims can cover any
8 sort of relative movement. Oh, and by the way, I guess you could remove
9 this cartridge column and manifold as a sub-assembly, and then the sub-
10 assembly could be detached. Again, the claims don't cover any relative
11 movement. They require a specific type of detachment of the cartridge. The
12 cartridge has to move relative to the receptacle, opposite the directions of the
13 inlets and outlets.

14 So, even if you followed Petitioner's sub-assembly argument, where
15 you took the manifold and the columns and you removed them from the
16 chassis. Dr. Talu is our expert. He has provided a reasoned explanation as
17 to how you would detach, even though it's not our burden to do so, he's
18 provided an explanation as to how you would detach the columns from the
19 manifold. According to Dr. Talu, because there's a spring on the top of the
20 beds and the columns, the spring would urge the manifold upward. Also, the
21 manifold is made of two plates which are connected by screws. Those plates
22 are going to tend to separate when they're detached from the columns. So,
23 there's a spring pressing upward on two loose plates. So, we provided our
24 explanation in light of this configuration, that you would actually remove the
25 manifold from the cartridge. Excuse me, the column, what they call the

1 cartridge, you'd remove the manifold first, and that would not meet the
2 claims.

3 Another thing Petitioners do is, in this sub-assembly argument,
4 Petitioners have taken the columns outside the context of the chassis. The
5 chassis is required to direct flow from what Deane calls the feed tube and
6 back into the main part of the column. When that sub-assembly is removed,
7 as Petitioners now argue, the feed tube is open to ambient air, and in our
8 view, that makes the feed tube no longer an inlet. The true inlet is actually
9 at the bottom, toward the main part of the bed. But something that also
10 jumped out to us is that in the petition, one of the reasons Petitioners said
11 Deane teaches to one skilled in the art, why you would remove the columns,
12 why the removal directions are met. Their motivation was to maintain
13 airtightness of the manifold and the column. That's the petition, at page 43.
14 They actually say the motivation to reach the removal direction limitations
15 was to maintain airtightness. We submit this is not airtightness. This is no
16 longer airtight. So, that's a completely new argument, and it contradicts the
17 motivation that's supplied in the petition. Just generic references to Berntson
18 and any other reference they want to point to that shows components in a
19 cartridge doesn't help because Berntson and any other reference doesn't
20 teach inlets and outlets pointed in a specific way, and it doesn't teach
21 removal of a cartridge in the opposite direction of those inlets and outlets.

22 I want to now move to the non-contact limitations. So, the non-
23 contact limitations, the claims require an inlet and a line arranged through
24 the inlet. And when fluid is flowing in the portable oxygen concentrator,
25 fluid flowing along that line will not contact adsorbent. And Petitioners, in
26 the petition, they map this claimed line to this green line, which they drew or

1 their expert drew on Deane's figure 6, and that green line contacts adsorbent.
2 So, when fluid flows along that line, our position is that Petitioners have not
3 established that fluid flowing on that line will not contact adsorbent.

4 JUDGE ROESEL: And when you say it contacts adsorbent, it's the
5 same adsorbent that's in the column. Or is it different adsorbent?

6 MR. MURPHY: So, the claim --

7 JUDGE INGLESE: I'm sorry, can I just --

8 MR. MURPHY: Please.

9 JUDGE INGLESE: -- piggyback --

10 MR. MURPHY: Yes.

11 JUDGE INGLESE: -- on this question as well? I was going to raise
12 this point specifically. So, in the Patent Owner's response, it's page 54, for
13 the record, a statement is made and I'll just read it. "Figure 6 illustrates that
14 fluid flowing along the green line would contact adsorbent, which is
15 contrary to the claim language. Indeed, the adsorbent material 612 extends
16 to the outer boundary line of the feed tube 608, which demonstrates that the
17 adsorbent is in the feed tube 608." All right, so that's one thing. But then,
18 two pages later, page 56, PO raises the position that providing adsorbent in
19 feed tube 608, as shown in figure 6, could serve the function of what is
20 known in the art as a pre-bed of adsorbent, i.e., an initial bed of adsorbent in
21 series with and prior to a main bed of adsorbent. So, is it Patent Owner's
22 position that the adsorbent from the main bed is in the feed tube or a separate
23 pre-bed of adsorbent is in the feed tube?

24 MR. MURPHY: Good question. Thank you for the question. Our
25 position is the former, that it's -- well, let me say this. We don't know. Our
26 position is it's not clear. And the fact that it's not clear means that they

1 haven't met their burden of showing clearly that there is no adsorbent that is
2 from the main bed that's in the feed tube. So, if I'm to move one step from
3 our main position, which is that it's not clear, our position is that it appears
4 that the adsorbent from the main bed is in the feed tube. And we did
5 reference this concept of a pre-bed, which would be presumably a separate
6 bed that's spaced apart from or distinct from the main bed. But what we said
7 was the pre-bed just enforces why maybe there is some adsorbent from the
8 main part of the bed that has gone into the feed tube, because it would still
9 provide that functionality of providing a bit of adsorbent that the fluid could
10 hit on the way down and then it would hit the rest of the adsorbent on the
11 way up. Does that answer the question?

12 JUDGE INGLESE: Yes.

13 JUDGE ROESEL: Is there any support for Patent Owner's
14 interpretation of Deane, aside from figure 6?

15 MR. MURPHY: So, great question. That was my next point, is that
16 Deane doesn't say anything about whether there is or isn't adsorbent from the
17 main bed in the feed tube. And Deane's text is completely silent. And, so.
18 Another point is that this aspect of the claims Petitioner's position is not
19 saying they have not sought to modify Deane to say, oh, by the way, it looks
20 like there's adsorbent in Deane, it would not be obvious to put it there, and
21 here's another reference that shows a feed tube without adsorbent in it.
22 They're not seeking to modify Deane, so they're just saying Deane teaches it.
23 So, from that perspective, they have to show that Deane explicitly or
24 inherently teaches the absence of adsorbent there. The text doesn't say one
25 way or the other. So, one skilled in the art would go to the figure. The
26 figure shows it there. So, in our view, we submit that that does not meet the

1 burden that Petitioners have to meet in order to show that that element is
2 disclosed by Deane.

3 JUDGE ROESEL: I believe in our decision to institute, we agreed
4 with Petitioner that figure 6 was a cutaway view and showed the adsorbent
5 on the inside of the column. Did we make a mistake there?

6 MR. MURPHY: Well, I think it is some sort of cutaway view, but I'm
7 going to try to point here with my laser pointer. You can see if this is truly a
8 cutaway view, that inner column, the adsorbent, would follow this disc that's
9 in the bottom of the inner column. It would follow that contour. And it
10 doesn't. It actually flows beyond it. So, if you're cutting away the surface,
11 you're also cutting away, presumably a surface of the feed tube. And then
12 the drawing shows the adsorbent right below that surface. So, Dr. Knaebel,
13 during his deposition, said something to the effect of, well, maybe the text
14 could be improved, or maybe the drawing could be improved or text could
15 be added to clarify this. Well, the drawing's not improved and there is no
16 text. So, they're left with what Deane discloses. And we don't think they've
17 met their burden of showing that express or inherent disclosure in Deane of
18 these non-contact limitations.

19 JUDGE ROESEL: The Patent Owner agrees that a feed tube either
20 may or may not have adsorbent in it. Right?

21 MR. MURPHY: Right.

22 JUDGE ROESEL: Both options are within the knowledge of one of
23 ordinary skill in the art.

24 MR. MURPHY: Right. And the fact that there are both options
25 means that they have not met their burden of establishing that there is no
26 adsorbent in that location, because it might be.

1 JUDGE OBERMANN: Why wouldn't one of those conditions be just
2 as obvious as the other?

3 MR. MURPHY: They never said it's obvious. What they say is,
4 Deane teaches it, Deane discloses it.

5 JUDGE OBERMANN: Thank you.

6 MR. MURPHY: So, another thing I want to say with respect to
7 Deane, with respect to this, is Petitioners, they rely on the accuracy of
8 Deane's drawings when it suits them, and they try to punt and say, oh, that's
9 just a representation of 2D and 3D space and you can't rely on that, and of
10 course, it's not really showing what we think is clearly shown in the petition.
11 In the petition, when addressing the removal direction limitations, the
12 Petitioners say, well, because of the configuration at the top of Deane and
13 because of the configuration of the manifold, those components would not
14 slide laterally, so there would be vertical movement. And Petitioner's basis
15 for that is the configuration of figure 6, as well as the configuration of the
16 receptacle. So, they rely on the accuracy of the gasket or the top of the
17 column. But when it comes to the non-contact limitations, they're willing to
18 quickly disparage Deane and say, oh, it's not accurate; it's just a view, an
19 artist's rendering, whatever. They've said a number of things along those
20 lines.

21 So, unless there's anything else on non-contact, I was going to move
22 to our receptacle argument. With respect to receptacle, the parties agree that
23 it must at least partially contain. If you examine the manifold, which is one
24 of the alleged receptacles, it actually has what has a protrusion or like a male
25 fitting. The columns, on the other hand, have a socket sort of shape or a
26 divot, what I would call a female fitting. So, does the manifold at least

1 partially contain the column in this case? We would submit no. We pointed
2 this out, this discrepancy out and Petitioner then said, well, the manifold, it
3 overhangs; it overhangs the column, therefore, it at least partially contains.
4 An overhang does not partially contain something. If you're standing on a
5 patio and there's a porch roof above you, you're not contained by that. It just
6 is hanging over you.

7 With respect to the argument that the shell and the manifold could be
8 the receptacle, we've shown, and if you follow Petitioner's lines of
9 arguments, there is no movement relative to the shell in the first direction.
10 The shell is removed by the time that the alleged detachment or removal of
11 the manifold and columns takes place. Regardless, the shell and manifold
12 are completely distinct, separate structures. They are movable, independent
13 of one another. And one wouldn't consider the combination of those
14 structures to read on a receptacle.

15 With respect to claims two and 15, the claims recite a spring that is on
16 an opposite side of the bed as the outlet. In Deane, the spring is on the same
17 side of the bed as the outlet. So, Petitioners do two things. First, they say,
18 take Deane's spring and move it to the bottom. There's no reason to move
19 Deane's spring to the bottom, because it would increase the complexity of
20 loading the column of Deane. It would make it more complex, all without
21 any tangible benefit. The references cited by Petitioners that show springs at
22 the bottom are actually showing springs on the same side that the bed is
23 loaded, whether that's the bottom or the top. You would never put a spring
24 on the bottom of Deane, because with the chassis there, the bed is likely
25 loaded from the top. This is in Dr. Talu's report. And you'd be loading the
26 bed against the support, against the spring on the bottom, which adds

1 complexity, all without a tangible benefit. To me, adding complexity with
2 no benefit, that's what hindsight is. You're not supposed to do that.

3 Their second position is that you would keep the spring there on top
4 and add another duplicate spring on the bottom. There are similar issues
5 with complexity there, but also cost. And both experts agree that this would
6 increase what's called dead volume, or space in the column that's not
7 occupied by adsorbent. It would increase the dead volume, and dead volume
8 is undesirable. That's in Deane.

9 Unless there are any questions, that's all I have.

10 JUDGE OBERMANN: Okay. Thank you so much.

11 MR. MURPHY: Thank you.

12 JUDGE ROESEL: You have 24 minutes to add to your 10 that you
13 reserved.

14 MR. MURPHY: Thank you.

15 JUDGE OBERMANN: And, Mr. Masters, whenever you're ready,
16 we'll start your clock running for the rebuttal. Take your time.

17 MR. MASTERS: Thank you. I just have a few points of rebuttal.
18 First refers to the movement relative to language, which is in the claims as a
19 capability, and the Patent Owner is unable to explain its meaning as to what
20 movement relative to or show anything in the specification that shows how
21 that phrase should be interpreted differently from what somebody of skill in
22 the art would interpret the phrase by movement relative to. The claim says
23 the separation cartridge is selectively removable. Okay. So, the cartridge is
24 removable. And then it says it's from a receptacle, by movement relative to
25 that receptacle. This is exactly the language from the physics textbooks that
26 describes the identical movement using the identical language of by

1 movement relative to. And Dr. Knaebel in slide 7, we point to his
2 declaration in the first and second declarations, which is important that Dr.
3 Knaebel, as somebody of skill in the art, has provided how a person of
4 ordinary skill would understand this phrase. And slide 8, as well, refers to
5 Dr. Knaebel's second declaration when he actually refers to the dinosaur
6 illustration.

7 JUDGE OBERMANN: I have just one question for you, because I've
8 noticed that this slide doesn't include a citation to any paper. Was it cited in
9 your reply, or was it discussed in your reply?

10 MR. MASTERS: The dinosaur?

11 JUDGE OBERMANN: Well, right here --

12 MR. MASTERS: This discussion here refers to --

13 JUDGE OBERMANN: -- I see citing an exhibit, but not a paper that
14 actually made this argument.

15 MR. MASTERS: I believe so. I'm told slide 7 shows Petitioner's
16 reply pages 11 to 15.

17 JUDGE OBERMANN: Okay, so on those pages of the reply, if I go
18 there, I'm going to find the discussion of the dinosaur figure or Exhibit 1078,
19 or whatever it is?

20 MR. MASTERS: These pages.

21 JUDGE OBERMANN: I just want to make sure that you're not
22 arguing about the exhibit that's on that slide in a way that wasn't argued in
23 your reply brief. You need to be able to point me to the parts of the reply
24 that talk about the dinosaur situation. And I'm happy to --

25 MR. MASTERS: Yeah.

1 JUDGE OBERMANN: -- give you, you know, we can give you a
2 moment off the clock, because I think it's important that you're not making
3 an argument here that is more detailed than what was in or unfairly goes
4 beyond what was argued in your reply.

5 MR. MASTERS: So, on pages 9 through at least 15, we talk about
6 the claim language, and we refer to -- we don't reproduce a copy of that
7 photo, but we do refer to Dr. Knaebel's declaration, and we've referred to
8 Exhibit 1078.

9 JUDGE OBERMANN: Okay, thank you so much.

10 MR. MASTERS: And I think it's worth -- sorry. With reference to
11 slide 9, again, Patent Owner agrees that hands, with respect to the hands
12 reference X and Z, you can have the frame of reference moving, which is the
13 receptacle. And if that receptacle is moving relative to the cartridge, you
14 have relative movement between the two, and you're causing the cartridge to
15 be removable from within that receptacle. And that is extremely important
16 to this construction of the phrase by movement relative to, is that even the
17 Patent Owner concedes the receptacle can be moving. Your frame of
18 reference can be moving. Once you have that, then Deane teaches that.

19 I was going to move on to the next topic, unless there's any more
20 questions here.

21 JUDGE ROESEL: Yes, I think on the relative movement issue, I
22 believe I heard Patent Owner argue that Petitioner's position on relative
23 movement is contrary to the motivation stated in the petition. I believe that's
24 what I understood Patent Owner to argue. Could you respond to that,
25 please?

1 MR. MASTERS: I don't really appreciate how one could be contrary
2 to the motivation here.

3 JUDGE OBERMANN: I don't want to speak for Mr. Murphy, but I
4 think that might have been the absence in the space in the cartridge. That
5 was a different argument, wasn't it?

6 MR. MASTERS: I think that's the next argument that I'm moving
7 to --

8 JUDGE ROESEL: Okay.

9 MR. MASTERS: -- which is the inlet.

10 JUDGE ROESEL: Okay. Sorry about that. Understood.

11 JUDGE OBERMANN: That was the motivation thing.

12 JUDGE ROESEL: Please proceed.

13 MR. MASTERS: Okay. So, two points on this. First is the claim
14 requires an assembled configuration, not something that's taken apart and
15 scattered around the room, if you will. Secondly, if we look at figure 15 of
16 the '614 Patent, I have it reproduced here on slide 50.

17 JUDGE INGLESE: I'm sorry, can you just clarify what you said?
18 You said the patent requires something that's not scattered all over the place?

19 MR. MASTERS: I said the claim requires an assembled
20 configuration. So, when you have the structure all together, it does not
21 require something that is dissected in the different components or across the
22 room, where you now no longer have an operating unit. But your inlets and
23 outlets may be over here, and it doesn't conform to the claim. The claim is
24 talking about an assembled configuration of these components. It's an
25 apparatus.

1 JUDGE INGLESE: Okay, but I thought I understood in your initial
2 argument, did you say that once you disassemble it so that you have only the
3 manifold and the cartridge, it's no longer operable?

4 MR. MASTERS: Well, it's not.

5 JUDGE INGLESE: But how do you square that with the comment
6 you just made, the claim requires --

7 MR. MASTERS: I think that's my point, is that once you remove a
8 component, the unit as a whole is not operable. The claim isn't talking about
9 separated units -- or components. It's talking about an assembled
10 configuration of these components when it's operating. That's what the
11 claim is directed to. And what I think I said earlier was that when you
12 remove the PSA unit, it doesn't operate. So, why are we even looking at
13 which way the inlets and outlets are being oriented in that situation? We
14 should be looking at how the inlets and outlets are oriented when it's in the
15 assembled configuration, which is what the claim requires. I hope I clarified
16 my position.

17 JUDGE INGLESE: Yes, thank you.

18 MR. MASTERS: So, just one last point. Slide 50 shows figure 15 of
19 the '614 Patent. And notice 132, this is where the cartridge is removed.
20 There's the outlets and the inlets, 132a, 134. And if that cartridge is not in
21 the receptacle, the receptacle is taking on ambient air. It's the same
22 argument that they're trying to chide Deane for. Theirs is the same situation.

23 And then I think the next point refers to what Patent Owner refers to
24 as the non-contact limitation. Petitioner has never said that figure 6 is not
25 accurate. What we say is it does not show to somebody of skill in the art
26 adsorbent in the feed tube. It never discusses that. It never says there's any

1 benefit to doing that. Never talks about a pre-adsorbent material or anything
2 like that. It illustrates a clean feed tube that goes into the adsorbent material.

3 And then finally, with respect to the spring, the function of the spring
4 is to assist in holding the adsorbent within that cartridge. It could be on
5 either end. It's obvious, based on Deane and the other prior art references
6 that we have shown.

7 And after that, I have no further comments unless there are specific
8 questions.

9 JUDGE OBERMANN: Okay. Thank you so much, Mr. Murphy.
10 And, oh, no, Mr. Masters, I'm so sorry.

11 MR. MASTERS: That's okay.

12 JUDGE OBERMANN: And Mr. Murphy, you have how many
13 minutes left?

14 JUDGE ROESEL: Thirty-four.

15 JUDGE OBERMANN: Thirty-four or twenty-four?

16 JUDGE ROESEL: Thirty-four.

17 JUDGE OBERMANN: Thirty-four minutes left. Okay. We'll start
18 the clock running when you're ready.

19 MR. MURPHY: Thank you. So, the main difference between when
20 the cartridge is removed in the '614 Patent and what we're saying would
21 happen to Deane's cartridge when it's removed, or Deane's column is in the
22 '614 Patent, the inlet is still fluidly connected through an enclosure to the
23 bed. Deane's inlet would actually just run to ambient air. It's no longer
24 fluidly connected. I just wanted to point that out. And I also want to say,
25 regarding figure 6 of Deane, Petitioners maybe don't say the words
26 "inaccurate," but if you read their arguments, and especially their expert's

1 declaration, they distance themselves from that aspect of figure 6 while
2 relying on figure 6 to be accurate and clean relative to other claim features.
3 So, again, while I don't believe they ever say flat out, we agree that it's
4 inaccurate. But if you actually read their arguments, they are distancing
5 themselves from figure 6 and trying to explain why figure 6 has this
6 adsorbent in the location where they drew the green line.

7 That's all I have. Unless there's any further questions.

8 JUDGE OBERMANN: No? Okay. Well, thank you so much.

9 MR. MURPHY: Thank you.

10 JUDGE OBERMANN: I would just like to thank both Counsels for
11 their level of preparedness. You both did a great job today. Thank you for
12 answering our questions so directly. You both did a great service to your
13 clients today. The arguments were helpful. The matter is now submitted.
14 The Panel will issue its final written decision in due course. And unless
15 there are any last-minute things that you want to discuss while you have us
16 all here, I'll ask Mr. Masters, do you have anything?

17 MR. MASTERS: Nothing from Petitioner. Thank you for your time
18 today.

19 JUDGE OBERMANN: Okay, great. Mr. Murphy? Very good.
20 Thank you. This hearing is adjourned. Have a wonderful day.

21 (Whereupon, the proceedings at 11:25 a.m. were concluded.)

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