

UNITED STATES PATENT AND TRADEMARK OFFICE

---

BEFORE THE PATENT TRIAL AND APPEAL BOARD

---

SHARKNINJA, INC., SHARKNINJA OPERATING LLC,  
SHARKNINJA MANAGEMENT LLC, AND  
SHARKNINJA SALES COMPANY,  
Petitioner,

v.

DYSON TECHNOLOGY LIMITED,  
Patent Owner.

---

IPR2023-01322  
Patent 10,433,687 B2

---

Record of Oral Hearing  
Held: December 5, 2024

---

Before JAMES A. TARTAL, FRANCES L. IPPOLITO, and  
MATTHEW S. MEYERS, *Administrative Patent Judges*.

APPEARANCES:

ON BEHALF OF THE PETITIONER:

BRIAN M. BUROKER, ESQUIRE  
NATHAN R. CURTIS, ESQUIRE  
Gibson, Dunn & Crutcher LLP  
1700 M Street, N.W.  
Washington, D.C. 20036-4504  
(202) 955-8500

ON BEHALF OF THE PATENT OWNER:

CHRISTIAN E. HUEHNS, ESQUIRE  
JAY EMERICK, ESQUIRE  
CAITLIN DEAN, ESQUIRE  
Kirkland & Ellis LLP  
333 West Wolf Point Plaza  
Chicago, Illinois 60654  
(312) 862-2000

The above-entitled matter came on for hearing on Thursday December 5, 2024, commencing at 1:00 p.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

- - - - -

JUDGE MEYERS: We are convened for oral arguments in IPR2023-01322, which pertains to the patentability challenges of claims in U.S. Patent 10,433,687. And then, following a short recess, we will reconvene for oral arguments in IPR2023-01324, which pertains to the patentability challenges of claims in U.S. Patent 9,414,662.

My name is Judge Meyers, and also appearing with me is Judge Tartal and Judge Ippolito. Let's get started today with appearances for both parties in the 1322 IPR. For those who will be arguing today, including any LEAP practitioners, if anyone else is attending remotely with you today but not speaking, please identify them as well, for example, if your client is attending.

Following the hearing, please confirm with the court reporter to ensure that there are no questions regarding the spellings of names or terms. All right, we'll start with appearances for Petitioner.

MR. BUROKER: Yes, Your Honor, this is Brian Buroker from Gibson Dunn on behalf of Petitioners in both of the petitions. But Nathan Curtis is also joining me. He is counsel for Petitioners as well. He will be presenting argument in the second petition.

JUDGE MEYERS: All right. Patent Owner?

MR. EMERICK: Good afternoon, Your Honor. Jay Emerick on behalf of Patent Owner in the 1322 proceedings. With me is Lead Counsel Christian Huehns, as well as Ms. Caitlin Dean.

JUDGE MEYERS: All right, we have reviewed the briefs and the evidence, and we're prepared today with questions. These questions and

1 their answers will help us to decide the issues in this case. In the interest of  
2 fairness and due process, we must limit our considerations to the arguments  
3 and evidence already presented in the record. We have the briefs and  
4 evidence available to us on our computers, so if we do look away from the  
5 camera during the hearing, we may be checking out those documents or  
6 taking notes. Please note that we are paying close attention to your  
7 arguments and carefully considering the case. And if we interrupt you, I do  
8 apologize in advance, but we do so to keep asking questions that may be  
9 essential to our resolution of the issues or to keep the hearing on track with  
10 time.

11 All right. According to the joint hearing order, both sides will have  
12 45 minutes to present arguments. We have received Patent Owner's request  
13 to participate in the oral hearing under the LEAP program. So Patent Owner  
14 will receive an additional 15 minutes of argument time during the oral  
15 hearing, bringing their total time to 60 minutes. We remind Patent Owner  
16 that the LEAP practitioner must have a meaningful and substantive  
17 opportunity to argue during the hearing today. That said, there's no set time  
18 requirement for that argument. It may be longer or shorter than 15 minutes.

19 One other item to mention before we begin is that we will have a  
20 public audio line open during this proceeding. There doesn't appear to be  
21 any confidential matter on the record, so we don't anticipate this being an  
22 issue. But I just want to confirm with the parties.

23 MR. BUROKER: That's correct. There should be no confidential  
24 information. I think that one or two of our clients may appear on the public  
25 line, but I didn't announce them because I'm not sure who from the Company

1 may participate. But if so, they will be on the public line, not on this line,  
2 Your Honors.

3 JUDGE MEYERS: All right. Petitioner will open the argument and  
4 may reserve rebuttal time which may not exceed more than half of  
5 Petitioners' total argument time. Patent Owner will then respond to  
6 Petitioners' arguments and may reserve sur-rebuttal time, also to not exceed  
7 more than half of Patent Owner's argument time.

8 Please remember that your arguments should be limited to only those  
9 arguments previously presented in your briefs. Please make clear which  
10 challenges and claims you are addressing at all times. And we ask the  
11 parties to hold any objections regarding parties' arguments until it is their  
12 time to speak. We also ask that when referring to slides, you give us the  
13 slide number. That would be helpful.

14 We will maintain a clock and endeavor to give each party time  
15 warnings as you near the end of your allotted opening argument time and  
16 near the end of the reserved rebuttal time. But it would be helpful for the  
17 parties to also track their time. That said, Judge Ippolito has volunteered to  
18 run the clock, but she will be checking in periodically with time reminders.  
19 Thank you, Judge Ippolito.

20 Petitioner, do you wish to reserve any rebuttal time?

21 MR. BUROKER: On this petition, Your Honor, I would like to  
22 reserve 15 minutes, please.

23 JUDGE MEYERS: Fifteen minutes. All right. Very good. You may  
24 begin your argument when you're ready.

1 MR. BUROKER: Okay. I'm going to try to share my screen so I can  
2 share the slides. Hopefully this will work. Are you able to see the slides,  
3 Your Honors?

4 JUDGE MEYERS: We are.

5 MR. BUROKER: Okay. Thank you. Your Honor, this morning I'm  
6 here to present argument in IPR2023-01322, which challenges a number of  
7 claims of the '687 Patent. This is slide 1. It's just the overview slide. Slide  
8 2, here, is the table of contents of the slides that we filed and I want to get  
9 straight to it. I'm here on slide 4.

10 So, what is the '687 Patent about? We're here to talk about this '687  
11 with regard to four separate grounds presented in the petition. Grounds 1  
12 and 2 are based on a primary reference we refer to as Conrad '630. Grounds  
13 3 and 4 is based on a primary reference we refer to as Matsumoto.

14 We then combine those references with two different secondary  
15 references, Conrad '787, which is grounds 1 and 3, and then the Dyson prior  
16 art reference, which is in grounds 2 and 4. So, I'll do my best. Because  
17 Dyson is both the Patent Owner and the name of a prior art reference, I'll do  
18 my best to make clear what Dyson I'm talking about as we proceed.

19 So, what does the '687 Patent relate to? Well, first of all, it relates to a  
20 handheld vacuum cleaner. And what we're showing here on slide 4 is one of  
21 the figures of the patent. And one of the features that we will talk about in  
22 the claims of this patent is shown here in Figure 2, which is a pistol grip  
23 configuration for the handle. And what is a pistol grip configuration? Well,  
24 the patent makes it clear that that is basically that handle that has an  
25 orientation that is inclined relative to the axis through the device. That's  
26 what's shown here.

1           When the applicant filed its patent application and sought claims to  
2 protect what it disclosed in this patent application, it was focused primarily  
3 initially on this pistol grip configuration and claiming features related to  
4 that. The Office rejected the claims. Why? Because of the prior art '787  
5 Conrad reference that we'll talk about. It's the secondary reference in  
6 grounds 1 and 3.

7           Eventually, the Office allowed the claims based not on the pistol grip  
8 configuration, but a secondary element of use in this device, which is the end  
9 wall. So, looking at figure 2, you see here an end wall 26 of a dirt collecting  
10 chamber that can be moved from an open position to a closed position. So,  
11 the alleged combination that allowed these claims to issue was the idea of  
12 having a pistol grip configuration with an end wall that opens to allow the  
13 dirt to be disposed of in a trash can, as shown here in figure 8 on slide 5.  
14 That is the alleged invention and particularly the claims require that that end  
15 wall open and close relative to the longitudinal axis of a cyclonic separating  
16 unit. You see that here in the dashed line that proceeds from left to right in  
17 figure 2.

18           So, the claim basically talks about you have this end wall that opens  
19 across or relative to that longitudinal axis. The problem is that feature of an  
20 end wall opening and closing relative to the longitudinal axis of a cyclonic  
21 separating unit was known in the prior art and known in two different  
22 references that the Examiner did not pay attention to or was not aware of.  
23 And that's the Conrad '630 reference in Matsumoto.

24           So, what you see in the -- this is claim 1. This is slide 6. Excuse me,  
25 claim 1 of the '687 we've highlighted here element 1[d] which is where  
26 much of the discussion will focus today. But element 1[c] was the limitation

1 that got the claims to be allowed. And that element 1[c] is clearly present in  
2 the primary references here. Conrad '630 in Matsumoto. There's no dispute  
3 about that. What there is dispute about is whether it would be obvious to  
4 modify those references to include the pistol grip configuration. And that's  
5 why this is highlighted in yellow. That's where most of the dispute between  
6 the parties lies.

7 So, again, there are four different grounds. This is slide 7. Excuse  
8 me. There are four different grounds. All challenge each of the challenge  
9 claims 1 through 4 and 8 and 10. Let me go ahead and start talking about  
10 ground 1. Let me go to slide 9. This is a roadmap of the issues that we'll  
11 talk about. But I'm just going to go straight into it. Rather than talking  
12 about the roadmap, this slide was more for your benefit after the hearing.

13 Let's look at Conrad '630. This is figure 6 from that reference. You  
14 can see it's got an end wall that's highlighted here in purple. It's got a dirt  
15 collecting area shown in green. It's got a cyclonic separating unit shown in  
16 that yellowish orange color. There is a longitudinal axis through that  
17 cyclonic separating unit and it has a handle. And then Conrad goes on to  
18 explain the benefit of its invention, which is that you are able to empty the  
19 dirt without the dirt being dispersed as the collection chamber is being  
20 conveyed. See, in many of the prior art systems you would have to remove  
21 the entire dirt collecting area and take it to the waste bin. Conrad '630  
22 recognized, before the Dyson '687 Patent was filed, that there's an advantage  
23 to having an opening that's at the end. So, you can take the device and place  
24 it in the trash can and empty it out. This is the same alleged invention or  
25 alleged advanced that the '687 Patent was focused on. And it's clearly taught  
26 in Conrad '630, which was filed many years earlier. So, Mr. Fester, our

1 expert, in his declaration made clear that a person with skill in the art would  
2 have recognized that Conrad '630's design implements the improved dustbin  
3 configuration benefit that the '687 Patent purports to have provided.

4 Now, the handle in Conrad '630 does not have the claimed  
5 requirement of a pistol grip configuration that's at an angle between 85 and  
6 140 of the cyclonic separating axis. You can see here that the handle is on  
7 top and its angle would not form an angle of 85 to 140 degrees. But Conrad  
8 '630 has a very important sentence and the parties will dispute the  
9 importance of this, I'm sure. But it's got an important sentence which  
10 discloses a very important modification to figure 6. And that is, it says in  
11 paragraph 52, handle 102 may be provided elsewhere on the vacuum cleaner  
12 100 for example, at the rear 110 and may be of any design.

13 That teaches you two important things. It discloses two important  
14 things. First of all, whereas it's shown, the handle is shown on the top here,  
15 a person of skill in the art would know that Conrad is disclosing that the  
16 handle could be at the rear. And what is the rear? The rear is element 110.  
17 You can see here in figure 6. This is on slide 12. You can see here on figure  
18 6, 110 is the very back end, this pointed to it being the rear. So, it's saying  
19 you can relocate or extend the handle 102 to be at the rear. Secondly, it's  
20 saying you might consider any alternative design as compared to the handle  
21 design that's shown in figure 6. Person of skill in the art by 2015, which is  
22 five years after the Conrad '630 was published, which 2015 is the priority  
23 date of the '687 Patent. So, that's the time period we're looking at for  
24 evaluating obviousness. By that point in time, a person of ordinary skill in  
25 the art would know that there were improved handle configurations when  
26 you're placing a handle at the rear of a vacuum cleaner or other power tools.

1 For example, the same inventor, Mr. Conrad in the '787 disclosure, which is  
2 several years later recognized the benefit of a pistol grip configuration.

3 We're looking at slide 13 and you can see figure 96 out of Conrad '787  
4 clearly shows a pistol grip handle. In fact, if you look at it looks like a  
5 pistol, there's no dispute between the parties that that is a pistol grip handle.  
6 There's also no dispute that that handle has the required angle relative to the  
7 longitudinal axis. In fact, as I said before in the file history, this reference  
8 was being used as an anticipatory reference to reject the claims of this patent  
9 application. Before the front end wall limitation was added. So, we know  
10 the Office recognized that this meets the limitations for the pistol grip  
11 element 1[d], and it clearly does. It shows an angle of around 105 or 110  
12 degrees, which falls squarely within the requirements for claim 1[d] and also  
13 dependent claim 2, which narrows the angle to 100 to 125.

14 So, why would a person of ordinary skill in the art use this handle?  
15 Well, Mr. Fester, who's an expert, has designed vacuum cleaners for a  
16 number of years for a competitor to both of these companies. He worked for  
17 a company called Bissell, and he said by the point in time of 2015, this type  
18 of pistol grip handle had become ubiquitous. It was comfortable, it was easy  
19 to use, and it gave the users a feeling of control. And moreover, having  
20 different locations for the handle on a tool like this gives the user increased  
21 flexibility of how they want to use the tool. See, these handheld vacuum  
22 tools are not typically used to clean the floor. They can be, but typically this  
23 type of vacuum is used to clean a countertop, or bedding, or drapery, or to  
24 reach behind something where it's hard to reach. That's where these kind of  
25 handheld power tools are used. Having flexibility for the user in choosing  
26 where to grab the tool is very important and was well known to a person of

1 skill in the art. And each of the references, Conrad '787, and I'll talk about  
2 Dyson in a minute, talk about the virtues of this handle, having comfort and  
3 ease of use for the user.

4 The second ground, instead of relying on Conrad '787, relies on the  
5 Dyson prior art reference. This is a patent application that was filed about  
6 nine years earlier than the '687 Patent that's being challenged. It also has a  
7 pistol grip configuration. It also talks about the ease of comfort for a user  
8 and it talks about the motivation. I'm sorry. Mr. Fester then talked about the  
9 motivation a person of ordinary skill in the art would have to use something  
10 that's more comfortable for a user when you have the handle at the rear.  
11 You can see, I'm going to go back to slide 13. The handle here is at the rear  
12 of this tool. And you see in slide 14, in the Dyson tool, the handle is at the  
13 rear again. So, a person of skill in the art would understand that when you  
14 move the handle or extend the handle to the rear, this type of pistol grip  
15 handle is convenient.

16 Now, in his declaration, Mr. Fester also recognized, and this is in the  
17 petition as well, that there's a benefit to having flexibility. And so, he said,  
18 well, since there's a fan outlet shown in figure 6 of Conrad '630, you might  
19 want to have the handle extend past that fan outlet and you may actually  
20 want to keep the original handle to give more flexibility. So, he proposed,  
21 here this is slide 15. He proposed one modification a person of skill in the  
22 art would come up with, which looks kind of like the green. And this is just  
23 a mock up. It's not actually obviously a drawing of what it would look like,  
24 but you would keep the handle 102 and extend it and provide the pistol grip  
25 handle that's taught by either Conrad '787 or Dyson to get what looks like  
26 this green shape.

1           He also posited a couple other different designs. This is slide 16.  
2       These are in his declaration where you can see there's three other designs  
3       that would have an ability to grab the tool in the top and an ability to grab  
4       the tool from the rear with its pistol grip orientation. That is what we  
5       proposed is a combination for grounds one and two. You take Conrad '630.  
6       Based on the teachings for either Conrad '787 or Dyson, you could extend  
7       the tool to have a handle at the back that's in a pistol grip configuration.  
8       That would meet all of the limitations of claim 1[d] and 1[c].

9           This is slide 17. Again, Mr. Fester talking about the benefits of  
10      optionality, given that these tools are used to clean many different surfaces.  
11      And then you also have here testimony from their expert in deposition that  
12      depending upon what kind of surface you're cleaning and what use you're  
13      putting the tool to, the orientation matters. And so, where you have the  
14      handle can be beneficial for different surfaces that you're cleaning.

15           JUDGE TARTAL: Counsel, this is Judge Tartal. If I could just  
16      interrupt.

17           MR. BUROKER: Sure.

18           JUDGE TARTAL: It seems like a little bit different of an argument  
19      than what was suggested in the primary reference. Sorry, the -- I'm  
20      forgetting which number it was. The '630, I believe.

21           MR. BUROKER: The '630 is the base reference. Yes.

22           JUDGE TARTAL: Right. Where the one sentence that you pointed  
23      to that indicated that the handle could be placed anywhere else on the  
24      vacuum. Is that different than what you're saying now, which is that it  
25      optionally could be in more than one location, so it could be on the top and  
26      the back?

1           MR. BUROKER: So, the reference clearly says you could have it at  
2 the rear. What our petition presented and Mr. Fester's declaration also  
3 presented was that there's also a benefit to extending it from the top to the  
4 rear. So you could move it to the rear. That's option one. You could also  
5 extend it so that it has, it keeps this configuration in the top and part of the  
6 handle then extends to the rear, which provides the benefit of optionality.

7           JUDGE TARTAL: And was that benefit or the idea of optionality,  
8 was that linked to any other disclosure or is that just the opinion of, based on  
9 just the opinion of Mr. Fester?

10          MR. BUROKER: It's based on the opinion of Mr. Fester, for sure.  
11 He points to, for example, in Conrad '787, where you have multiple handles,  
12 for example. And there are other references that he talks about where there's  
13 a benefit to having the ability to move the handle around, which is from  
14 Conrad '630. But there's no express teaching of optionality. He's just saying  
15 that this is what a person of skill in the art would recognize as an additional  
16 benefit. If you're going to move the handle, why not keep it in the original  
17 location and just extend it? So, you have two choices.

18          Yeah. So, and also there's in the initial petition, we talked about the  
19 fact that these tools, these hand tools, are often used with attachments, and  
20 that's recognized. Their expert agreed that this is the type of tool that can be  
21 used with an attachment. In fact, there's another reference, Exhibit 1008,  
22 which is Conrad '663. It's another patent in the same -- well, no, it has the  
23 same inventor and it shows the exact same figure as in figure 6, but it says  
24 that that can be used with attachments. And so, if you're going to use it with  
25 an attachment, such as a crevice tool or a wand, which would be located in  
26 the bottom, because that's where the inlet of this Conrad '630 is. It would

1 look like what's shown here on the left of slide 18. That purple is meant to  
2 represent what a crevice tool would look like. And therefore, having the  
3 handle at the rear would be beneficial to be able to control that crevice tool.  
4 So, this is all presented in the petition as to why you would want to use a  
5 handle at the rear portion, that is a pistol grip configuration, in modifying  
6 Conrad '630.

7       So, what do they say in response? Well, first of all, they say, well, if  
8 you move the handle to the rear, you might use a different handle  
9 configuration. And they posit a couple of different designs. This is on slide  
10 19. These are four different designs that they propose in their Patent  
11 Owner's response. But none of those are actually ones that their expert  
12 agreed was ergonomically beneficial. A person wouldn't actually put the  
13 handle in that orientation. In other words, if you're going to move it to the  
14 rear, which is what Conrad '630 says to do, you put it on the rear, not  
15 extending from the rear.

16       They also have a large number of arguments that are presented to try  
17 to demonstrate that there would be a disadvantage to a user from having the  
18 handle on the rear. Well, first of all, to be clear, Conrad '630 already says to  
19 put it on the rear. So, the modification we're proposing to Conrad '630 is not  
20 putting it on the rear because that's, that's actually disclosed by the reference.  
21 The modification is simply to take once you have the handle at the rear, to  
22 replace it with a pistol grip configuration, which is more comfortable for  
23 rearward holding tools. The other issue, of course, is that this device, as you  
24 can see here, they argue, well, it would be hard to hold in that orientation.  
25 But that would be one, it's just a specific use case. You don't use a vacuum  
26 standing in the air. The second is it would depend on what surface is being

1 cleaned. So, in this particular circumstances, if you were holding the tool as  
2 shown here in A or B, but you're cleaning a couch or a counter, it would be  
3 easier to hold. So, it depends on the use. And the claims here, the  
4 Institution Decision recognized, aren't limited to any one particular use. So,  
5 if there's some motivation to modify the reference and there's some benefit  
6 to it, just because there may be circumstances that are less beneficial, that  
7 doesn't mean that it's not an obvious combination to make.

8 This is slide 21, a couple of other examples that they provide. And  
9 again, if you extend the handle from the top to the side, you wouldn't have  
10 the situation in picture H here on this slide, you would still be able to grab it  
11 from the top. The same is true when comparing L to M. They say L is the  
12 original Conrad '630, M is the proposed modification. But again, our  
13 proposed modification considers extending the handle, not just replacing it.  
14 And then when we were asked, you know, asked their expert about the  
15 opinion about whether it would be an inferior design, well, what surface  
16 were you thinking about? And he said he hadn't considered where the  
17 surface would be in rendering that opinion.

18 So, we're here on slide 23. Again, they make another argument that if  
19 you're cleaning the stairs and allowing the vacuum to hang, that that would  
20 be somehow disadvantageous. But of course, in addition to a hose we talked  
21 about earlier, there's the crevice tool. And certainly, if there is a crevice tool  
22 that's being used, it's easier and more -- easier to control if you have the  
23 pistol grip handle at the rear. So, our arguments are that -- their arguments  
24 about the combination being inferior, one, don't look at the actual proposed  
25 modification which has the handle in both locations. Two, if you're limiting  
26 it just to the handle being the rear, it's still only a specific use case, which

1 doesn't mean that the claim itself is not obvious for other use cases. And  
2 we've presented many use cases where having the handle at the rear is  
3 advantageous, such as the crevice tool example here on the bottom of slide  
4 23.

5       Okay, so element 1[d] in claim 2. So, just for the combination of  
6 Conrad '630 and Dyson in ground 2 just for that ground, not for ground 1,  
7 but for ground 2 only, they make the argument that the proposed  
8 combination still doesn't teach element 1[d] and 2. And their argument  
9 primarily is that when you look at the Dyson reference, the cyclone in the  
10 Dyson reference is vertical. And therefore, the angle of the handle and  
11 Dyson relative to the cyclone is not within 85 to 140 degrees, but it is 85 to  
12 140 degrees relative to the longitudinal axis through the tool. And so, our  
13 proposed combination wasn't to take Dyson's handle and vacuum and  
14 replace that in Conrad '630. Our argument was to take the handle teaching  
15 the benefit of a pistol grip handle at that angle and use that on Conrad '630,  
16 which would look like what you see here in figure 6. And in that  
17 circumstance, the handle angle taking the teaching from Dyson would be  
18 between 85 and 140. In fact, it would be about 100 degrees, which would  
19 meet the limitations of claim element 1[d] and it would meet the claim  
20 limitation and dependent claim two. That's our argument. I think they're  
21 trying to say that we only relied on Dyson alone for claim element 1[d] and  
22 claim 2. But if you read the petition carefully, it actually is very clear that  
23 relying on the combination, the idea of taking Conrad '630 and modifying it  
24 and the resulting modification would then have the claimed range for claim  
25 element 1[b] and for claim 2. And again, here's claim 2 and the other  
26 depending claims 1 point here. While I'm on it, there's no separate argument

1 presented by Dyson for claims 3, 4, 8 and 10. So, they stand or fall with  
2 claim 1 for each of these grounds. This is slide 25, sorry.

3 Okay, I'd like to move to the Matsumoto grounds, grounds 3 and 4.  
4 Some of the arguments are very similar, but I wanted to go over them, and  
5 I'll start just looking at Matsumoto on slide 28. So, Matsumoto --

6 JUDGE MEYERS: Counsel, I just want to let you know you have a  
7 little over five minutes left.

8 MR. BUROKER: Okay, thank you very much. And I may, if it's  
9 permittable, I may eat into my rebuttal time and just use whatever I have  
10 left, if that's okay. I want to make a --

11 JUDGE MEYERS: Yeah, that's fine.

12 MR. BUROKER: -- few points about Matsumoto. So, what you see  
13 in Matsumoto here is a vacuum cleaner. It has a dirt collector. It has an  
14 opening compartment at the front. It's got a cyclonic separating unit shown  
15 here in yellow. It's got a handle already at the rear. It's got a handle that's  
16 already at an angle relative to the longitudinal axis of the cyclonic separating  
17 unit.

18 There's a debate about whether that is a pistol grip configuration. And  
19 so, in the petition, we said, well, certainly would have been obvious to  
20 miniaturize this tool because you can see it's got these collars that can be  
21 removed to make it smaller or larger. And if you miniaturize the tool, you  
22 might want to have a pistol grip, which gives you a little more control if  
23 you're going to be carrying the tool around to do different activities that you  
24 use with a handheld tool. In the briefing in the submissions, we actually said  
25 a preamble is not limiting. And so, what you see here on the left in figure 25  
26 would still meet the limitations of the claim, because the handheld

1 component of the preamble is not limiting. But even if it is limiting, it  
2 would be obvious to reduce the size of it. So, you get what is shown here on  
3 the right of slide 29, a smaller version of Matsumoto.

4 And if you then move along here, this is slide 33. If you look at that  
5 handle, this was a patent application. Matsumoto was filed in 1999. A lot of  
6 work had been done in this field on handles. And since 1999 through 2015,  
7 a lot of companies had recognized that that style of handle, the cantilever  
8 style Mr. Fester talked about, is likely to break because it's all got all of the  
9 force on the user's hand going to and for (phonetic). And also if it drops  
10 onto the floor, that's the point of impact and it might break. And so, it was  
11 well known in the field that that style of handle would not be advantageous.  
12 And so, the proposed modification here is simply, you have these other  
13 pistol grip handles that were Known in the field you had Conrad '787 and  
14 you had the Dyson reference and it would have been obvious to replace that,  
15 this is slide 34, that skinny handle that's likely to break with a pistol grip  
16 handle that's much sturdier and has added comfort and usability. So, that's  
17 the proposed modification.

18 Now there's again a lot of argument in the Patent Owner's response  
19 and the sur-reply about usability and this having less usability. But it  
20 actually has a lot of benefit. One, it reduces the likelihood of breakage. I'm  
21 going to go to slide -- let me, go ahead, yes, slide 41. On the left is one of  
22 the arguments they presented where they said well the handle actually  
23 doesn't cause this tool to be likely to break. If it breaks at all, it's going to  
24 break at this fracture point, 10b. Well, if the handle has any relationship to  
25 possibility of fracture, that's a disadvantage of the handle. And their expert  
26 did recognize that if you shortened the handle, which you would have a

1 shorter in the X axis with a pistol grip handle you would reduce the  
2 possibility of a fracture. So, the benefit of the pistol grip configuration on  
3 Matsumoto would be at least to make it easier to use and secondarily it  
4 would reduce the likelihood of fracture. And so, that's why we're making  
5 that proposed combination.

6 Real quickly then, on secondary considerations, a lot of the evidence  
7 that they submitted is really just about the dustbin and not about the  
8 combination. Again, this claim was allowed based on the combination of  
9 elements. None of these references talk about the benefit of having a  
10 dustbin that opens from the front combined with a pistol grip handle. That  
11 that's some sort of a novel idea. In fact, what these articles just talk about is  
12 that the advance that Dyson had made with its own products, they don't  
13 recognize that these are new and innovative over other products in the  
14 industry or that the industry had never seen anything like these. That's not  
15 the kind of articles they submit in their secondary considerations. In fact, if  
16 you look at the articles they talk about dustbins opening from the front, you  
17 can see that's exactly what Conrad '630 is talking about. That's the prior art.  
18 And the same is true for Matsumoto, having a dustbin that opens from the  
19 front is exactly what was being taught in the prior art. That's not a new  
20 feature. The articles are not evidence that this is a new and innovative  
21 feature or that it's solving some long-felt need. So, therefore we don't think  
22 that this evidence supports the finding a non-obviousness either.

23 So, with that I'll leave whatever time I have left for rebuttal. Thank  
24 you.

25 JUDGE IPPOLITO: You were only nine seconds over.

26 MR. BUROKER: Oh.

1 JUDGE IPPOLITO: So I think you still have your 15 minutes.

2 MR. BUROKER: Okay. Thank you.

3 JUDGE MEYERS: All right, so 15 minutes of rebuttal. All right,  
4 Patent Owner, you're up. Do you wish to reserve any rebuttal time?

5 MR. EMERICK: Yes, Your Honor. Jay Emerick, on behalf of Patent  
6 Owner, we wish to reserve 15 minutes for, I believe, it's the sur- rebuttal  
7 time and for myself to clarify or correct any statements by Ms. Dean, who is  
8 arguing under the LEAP program today.

9 JUDGE MEYERS: All right, so you'll use a half hour and then Ms.  
10 Dean will take 15. Is that how you propose?

11 MR. EMERICK: Actually, I'll be only giving some short introductory  
12 remarks, after which I will turn over the bulk of the argument to Ms. Dean,  
13 but wanted to reserve of the available 60, 15 for sur-rebuttal, as well as for  
14 my opportunity to correct or clarify any of her statements.

15 JUDGE MEYERS: All right, very good. You may begin your  
16 arguments when you're ready.

17 MR. EMERICK: And with that I'll, as I mentioned, I'll give some  
18 intro remarks and turn it over to Ms. Dean for the bulk of the argument. The  
19 fundamental problem, Your Honors, with Petitioners' combinations, is that  
20 taking a vertical or near vertical handle and putting that vertical or near  
21 vertical handle behind, to the rear of all of the other components of the  
22 vacuum is that, and we've gone over this in our papers, but it puts all of that  
23 weight of the vacuum forward up in front of the user's hand. So, you've got  
24 a vertical hand with all the weight in front. And when you do that, it just  
25 creates this massive torque on the user's wrist that is, I think,  
26 disadvantageous, not only from a common sense perspective, but the art that

1 Petitioners have advanced, their own art, the Conrad references and our art,  
2 the Dyson reference, both of which they advance, says not to do that because  
3 of the torque issue that's created by putting all of these heavy components in  
4 front of a vertical handle that's at the rear.

5 So, Petitioners' references, they teach handheld vacuums, as Mr.  
6 Buroker said, vacuums that are designed to be used with one hand. And so,  
7 the torque issue is a really important issue because that one hand is all that  
8 you've got to hold the vacuum with when you're using it in that one hand  
9 handheld position. And so, I think again, what's telling here is that the  
10 references, the very references that Patent Owner has advanced, including  
11 their own reference, the Conrad reference, which is assigned to Patent  
12 Owner, says not to do that.

13 And so, Ms. Dean, and I'll start with the Dyson reference, and Ms.  
14 Dean, if you could pull up Patent Owner's Exhibit 1007, which is the Dyson  
15 reference.

16 JUDGE TARTAL: Counsel, this is Judge Tartal, if I could just  
17 interrupt. And you're welcome to sort of proceed with your presentation as  
18 you kind of have in mind, but just to kind of give some insight as to what  
19 would be helpful. Obviously, the big issue with Patent Owner is disclosure  
20 in '630, the express disclosure that the handle can go at the rear. So, I'm sure  
21 you'll get to this or have some kind of focus on that. But I think that that  
22 would be a really important point to kind of address upfront as well, which is  
23 you're indicating kind of reasons why you wouldn't want to put a handle at  
24 the rear in the combination. But we also have that express disclosure in the  
25 '630 saying put the handle at the rear. So, I would really, really appreciate,  
26 you know, the insights you have on how we interpret that express disclosure.

1 And if it's a motivation, is it not a motivation, you know, what impact does  
2 that have on your arguments? Thank you.

3 MR. EMERICK: Thank you, Judge Tartal. And I think, you know,  
4 the reference like when you look at Matsumoto sums it up well. Certainly  
5 there were horizontal handles in the prior art at the rear of a vacuum, and  
6 that's a comfortable way to do it. If you've got a horizontal handle, and  
7 pardon the standing, if you've got a horizontal handle and everything's in  
8 front of it, you don't have a wrist torque issue. And so, when Conrad, which  
9 Conrad '630, which teaches that horizontal handle, says, hey, you can put a  
10 handle at the rear, and that's one way to do it. That wouldn't be an  
11 uncomfortable or disadvantageous way to do it. But I don't think that  
12 disclosure says by any stretch you can or should or would have put a vertical  
13 handle at the rear behind all those heavy components. Because that's where  
14 you get the wrist torque issue. The horizontal handle is not creating a wrist  
15 torque issue because the weight is hanging down and is supported by your  
16 arm. Once you turn vertical, that's when you suddenly have all this wrist  
17 torque. And that is what -- this very wrist torque was recognized by the  
18 same inventor of Conrad '630, which is Conrad '787, which is also  
19 Omachron, the Patent Owner.

20 And so, what was Conrad saying in '787? We'll get to it. But he said  
21 it's preferable when you do a vertical handle. And we'll get to it preferable  
22 when you do a vertical handle to have the weight, the motor, the heavy  
23 components below that handle because then you don't have the wrist torque  
24 issue; when you put it in front, then you've got the wrist torque issue. So, I  
25 think having this reference by the same inventor who's explaining that this  
26 combination that's proposed by Petitioners would have been

1 disadvantageous really puts a lot of insight into what should we take from  
2 the '630's disclosure that says you could put a handle at the rear? I don't  
3 think there's any suggestion, or teaching, or motivation there to put a  
4 vertically oriented handle at the rear. And in fact, in '787 that same inventor  
5 says it's disadvantageous to do so.

6         So, just to rewind and turn back to the Dyson reference, unless you  
7 have further questions on that, Judge Tartal. I'd just like to start with the  
8 Dyson reference. Exhibit 1007. Ms. Dean, if you can turn to page 6, line 6.  
9 And to preempt any objections by Patent Owner [sic], I'm going to talk  
10 about material that was discussed in our POR at pages 10 and 43 through 44.  
11 But when you turn to page 6, line 6.

12         MR. BUROKER: Just to clarify. We are Petitioners. I think you  
13 said. Patent Owners, I just want to clarify. I know not to interrupt, but I just  
14 wanted to clarify. Sorry, Your Honors.

15         MR. EMERICK: Thank you Mr. Buroker, if I misspoke on that. So,  
16 turning to page 6, line 6 of the Dyson reference. Dyson talks about how --  
17 I'm sorry, Ms. Dean, line 6, the location of the hand grip 28 and it's talking  
18 about the vertically oriented handle here between the airflow generator and  
19 the power source. And these are the two heavy components of the Dyson  
20 vacuum allows the handheld vacuum cleaner 10 to be manipulated easily in  
21 use. And it says this is because the user's hand will be located between the  
22 two heaviest components of the vacuum cleaner. And this results in this  
23 dumbbell like configuration in which the weight of the handheld vacuum  
24 cleaner is distributed on both sides of the user's hand. So, that's very  
25 important in the Dyson reference.

1           Again, these are handheld vacuums designed to be used from floor to  
2 ceiling, designed to be used by one hand. If you've got heavy components  
3 above and below the handle, you have enabled those use cases. If you've got  
4 this vertical handle where everything is forward of it, you're constantly  
5 torquing, you're putting massive torque on the wrist. So, this is what Dyson  
6 was saying as of the time of prior to the '687 in the relevant time period.  
7 And as it turns out, Conrad, both the inventor of Conrad '630, Conrad '787  
8 and who is also the Patent Owner in this case Omachron, that's the  
9 (inaudible), was saying the same thing.

10           And so, Ms. Dean, if you can switch the slides and we can look at  
11 slide 15. So, what was Conrad saying about how you should configure a  
12 vacuum with a vertical or near vertical handle? And so, Conrad is saying the  
13 same thing that Dyson was saying. And so, you see here in the Conrad '787  
14 reference, they've got their motor right below the handle. And this reference  
15 doesn't have a battery. And so, the dumbbell portion of the Dyson reference  
16 about battery and motor isn't relevant with respect to this corded vacuum.  
17 But the principle of putting those heavy components above/below the handle  
18 is seen as well in Conrad '787 and also discussed as advantageous, the best  
19 way to do it.

20           And so, if you jump to slide 17, Ms. Dean, this is an excerpt of  
21 Conrad '787 on the right. And then we're showing their proposed Conrad  
22 '630 combination on the left. But from the excerpt of Conrad '787 which is  
23 that reference we just looked at where the motor is below the handle, they're  
24 saying the same thing as Dyson. Preferably, it's preferred that the center of  
25 gravity when you've got this vertically oriented handle is aligned vertically  
26 below handle 484. And so that when a user grasps the hand back by that

1 handle 484 the center of gravity is aligned below the user's hand. So, that is  
2 what Conrad '787 says is preferable. And they do that by putting the heavy  
3 component, the motor, below the handle. So, that is what Patent Owner  
4 Omachron Conrad was saying prior to the '687 Patent that's being challenged  
5 today.

6 Now it's saying the opposite. Now it is saying in these proceedings  
7 that torque is not an issue. But when you look at what both parties were  
8 saying at the relevant time period in both the Dyson references and the  
9 Conrad references the relevant time period for assessing obviousness or non-  
10 obviousness of the '687. We were in agreement. If you've got a vertical or  
11 near vertical handle, you should be putting heavy components above or  
12 below it. And that's what both parties were doing in their patents, because if  
13 you don't, you're putting an unacceptable amount of torque on a user's wrist.

14 And so, this is an issue that in our view dooms all of Patent Owner's  
15 [sic] proposed combinations, including the Matsumoto combination that  
16 does the same thing. They all take a vertical or near vertical handle and put  
17 that vertical or near vertical handle behind all of the other components of the  
18 vacuum. They put all the weight of the vacuum in front of the user's hand.  
19 And as both the Conrad and '787, Conrad '787 and Dyson references teach,  
20 you simply wouldn't do that. And I think Patent Owner's response -- and  
21 then I'll turn it over to Ms. Dean, is, well, there's, that's optionality. You can  
22 just put a second handle here, but you've still got the first one on '630. Well,  
23 putting a second handle on here that's useless because of the weight  
24 distribution and the torque it would cause is not something that a POSITA  
25 would have been motivated to do or would have been obvious because it's  
26 just simply not a useful configuration.

1 With that, I will turn it over to Ms. Dean for the remainder of the  
2 argument.

3 MS. DEAN: Mr. Emerick, and thank you, Your Honors, may it  
4 please the Board. I'll pick up where Mr. Emerick left off. Dyson's expert,  
5 Mr. Davidshofer, his declaration explains how this torque is increased. In  
6 paragraph 52 of his declaration, which is shown on slide 18, you can see that  
7 he says that although this statement that Petitioners are relying on may imply  
8 that a handle may be provided at Conrad '630's rear, the arm and wrist strain  
9 caused by increased torque created by utilizing Conrad '787's handle at the  
10 rear would have led a person of skill in the art away from the proposed  
11 modification. And you know, again, at paragraph 53, Mr. Davidshofer  
12 explains that a person of skill in the art would have understood that it is  
13 more difficult to hold an object in a fixed orientation when all the heavy  
14 weight is distributed horizontally away from the hand in one direction,  
15 which is what's happening in Petitioners' hypothetical modification of  
16 Conrad '630 with the handle in the rear. Compared to holding an object  
17 where the weight is distributed on opposing horizontal sides of the hand or  
18 distributed closer to the hand, like in the dumbbell configuration that Mr.  
19 Emerick was discussing. The strain on the user caused by the torque is  
20 compounded if the handle is rotated from an orientation substantially  
21 transverse to gravity to an orientation substantially parallel to gravity, as  
22 shown in Petitioners' proposal. And this torque adds additional stress on the  
23 wrist.

24 Now, moving to ground 2, which is Conrad '630 in view of Dyson, we  
25 have two issues here. We have the issue of motivation to combine and the  
26 issue of whether or not limitation 1[d] and claim 2 are disclosed by this

1 combination. And so, you'll see that for ground 2, as you saw before, it's the  
2 same proposed modification of Conrad '630 in ground 1 and ground 2. And  
3 Petitioner relies on the same language regarding the handle in Conrad '630.

4 Conrad '630, as Mr. Davidshofer identified, as Conrad '630 provides  
5 no further guidance as to the alternative handle design, and it does not refer  
6 to a handle such as that in Conrad '787. And there were other alternative  
7 handle designs available at the time that would not provide the same issues  
8 with the torque that Petitioners' proposal does. Dyson discusses the  
9 disadvantages of handheld vacuums where heavy components are forward of  
10 the handle. We saw some of that language as presented by Mr. Emerick.

11 And again, in the Dyson reference, which is Exhibit 1007, looking at  
12 slide 26, you can see that in Dyson at page 1, lines 25 to page 2, lines 2,  
13 again, it discusses that having the heavy components of the vacuum cleaner  
14 located forwardly of the hand grip relative to the user's hand when the  
15 vacuum cleaner is in use is disfavored. Specifically, it says that this may  
16 result in the handheld vacuum cleaner described as being tiring and  
17 uncomfortable to use because the user will have to exert additional effort in  
18 order to maintain the handheld vacuum cleaner in a fixed orientation. These  
19 are problems that would be associated with Petitioners' proposed  
20 combination of Conrad '630 in view of Dyson as well as in view of Conrad  
21 '787.

22 And so, now we're getting to whether or not claim limitation 1[d] and  
23 claim limitation 2 are disclosed by Dyson. So, here is claim limitation 1[d].  
24 And I can zoom in as this is slide 27. And you can see this is related to the  
25 handle and it specifies if you look at the very end of claim 1, wherein the  
26 handle axis and the longitudinal axis intersect within the vacuum cleaner,

1 and it's the longitudinal axis of the cyclonic separating unit. So, if we move  
2 to slide 28, you'll see that Petitioners admit that Conrad '630 does not  
3 disclose limitation 1[d].

4 And then moving to slide 29, you'll see that Dyson does not disclose  
5 that the handle axis and the longitudinal axis intersect within the vacuum  
6 cleaner, because what we're talking about here is the longitudinal axis of the  
7 cyclonic separating unit, which is shown in Patent Owner's response at page  
8 42 and replicated on slide 29 on the left in yellow. And then in purple you  
9 see the handle axis. And while those lines would intersect, they would not  
10 intersect within the vacuum cleaner. And Petitioners' expert, Mr. Fester,  
11 testified as such, that given this, they would not intersect within the vacuum  
12 cleaner. This purple line and this yellow line here shown on the left side of  
13 slide 29.

14 Now we'll move to grounds 3 and 4, and these are both combinations  
15 that involve Matsumoto in view of the party's references, Conrad '787 or  
16 Dyson. Ground 3 is Conrad '787. Ground 4 is Dyson.

17 And I'm going to skip down to slide 34, which shows Petitioners'  
18 modification is sort of a two-step modification. First, Petitioners propose  
19 miniaturizing Matsumoto. So, you'll see that Petitioners are taking away  
20 part of slide -- excuse me, part 3, and attaching it directly to the handheld  
21 portion. And Petitioners argue that a person of skill in the art would have  
22 been motivated to miniaturize the vacuum cleaner in order to operate it in a  
23 handheld configuration. And that's the vacuum cleaner disclosed in  
24 Matsumoto.

25 And they rely on this language in Matsumoto shown on slide 35 in  
26 paragraph 68 of Matsumoto, which is Exhibit 1005, which explains that

1 according to the present invention, a connection pipe is bent, so it's a  
2 function of the handle held by the user. This helps reduce the space  
3 occupied by the handle. So, the problem being solved here was reducing the  
4 space occupied by the handle, potentially by miniaturizing the handle. In  
5 this way, it is possible to miniaturize the vacuum cleaner and enhance the  
6 operability thereof.

7 And so, again, sort of looking back and thinking back to the slides  
8 here, you can see this miniaturization that they're proposing. And here they  
9 haven't yet replaced the handle. And you see Mr. Fester, which is  
10 Petitioners' expert, says that Matsumoto could be used as a handheld vacuum  
11 by using only the uppermost connection pipe 3 and connecting suction port  
12 body 4, or another attachment to the shortened connection pipe 3. So,  
13 they're miniaturizing the entire device rather than the handle, which is what's  
14 disclosed in Matsumoto.

15 And Petitioners' expert, Mr. Fester admitted in his deposition that  
16 Matsumoto does not disclose a miniaturized handheld vacuum. And you can  
17 see here the testimony on the right-hand side. Matsumoto does not explicitly  
18 disclose a miniature handheld vacuum to be used as a handheld  
19 configuration that would be suited for cleaning other types of surfaces. And  
20 Petitioners' expert also, again, there's more testimony showing the  
21 Petitioners' expert admits that Matsumoto does not disclose a miniaturized  
22 handheld vacuum.

23 And moving on, you'll see. So, this is Petitioners' proposed  
24 modification of the miniaturized Matsumoto. This is the second step. So,  
25 first you miniaturized you need to miniaturize Matsumoto and then you need  
26 to change the handle. And you can see here Petitioners' proposed

1 combination for ground 3 and Petitioners proposed combination for ground  
2 4 that we're looking at slide 39. And this comes from Mr. Fester's  
3 declaration. And you can see there are some differences in the handle.

4 Petitioners' expert's opinions about Matsumoto are unsupported. He  
5 simply announces them. A person of skill in the art wouldn't have  
6 recognized; a person of skill in the art would have recognized; a person of  
7 skill in the art would have recognized. There's no basis for them except for  
8 his own opinion. And he admits, again, that Matsumoto does not disclose a  
9 miniaturized vacuum. And he distinguishes it. So, he says Matsumoto  
10 shows exclusively a stick vacuum which would be partially supported by the  
11 floor. And this is important because moving to Dyson's expert, Mr.  
12 Davidshofer, he explains why this is important and how this creates severe  
13 disadvantages for the proposed modification.

14 So, in Matsumoto, which you can see on the left-hand side of slide 42  
15 in figure 25 of Matsumoto, the vacuum cleaner's weight is distributed  
16 between the user and the floor on which the suction port is resting during use  
17 because much of the weight is distributed to the floor and the handle is  
18 maintained at a comfortable height based on the length of the connection  
19 pipe 3 the design considerations for the handle placement and the design  
20 overall are substantially different than for Conrad '787 or for Dyson. And  
21 Mr. Davidshofer continues, if you skip down, a person of skill in the art  
22 would have understood the change in weight distribution of the vacuum  
23 cleaner in making such a modification would have led to severe  
24 disadvantages, as we were discussing previously in adding Conrad '787 or  
25 Dyson's handle to the rear of this proposed miniaturized version of  
26 Matsumoto.

1 JUDGE TARTAL: Counsel, this is Judge Tartal, if I could just ask a  
2 quick question at a little bit of a broader level, but in considering the  
3 obviousness of the combination, what is your view on how we evaluate  
4 benefits and detriments? So, in other words, to be obvious it doesn't require  
5 that there be no detriment to, kind of, the asserted combination. Obviously,  
6 Petitioner argues certain benefits are provided by the combination. Patent  
7 Owner identifies what it contends are certain disadvantages of the  
8 combination. What is our task in terms of trying to balance the two of those  
9 competing arguments and what should we base that on?

10 MS. DEAN: So, certainly we're pointing to expert testimony, but I  
11 think going back to what Mr. Emerick was saying before, I think you can  
12 really look at what these references are saying in the references themselves  
13 about what is desirable or undesirable when you're thinking about what a  
14 person of skill in the art, at the time, would have considered obvious or  
15 would have been taught away from doing based on those disclosures. So,  
16 where they're saying it's preferable to have a pistol, the handle with the  
17 weight on both sides of the hand; it's disfavored and it creates disadvantages  
18 to have. And we can hop back to those slides. But the references  
19 themselves explain what the party's thinking was at the time as well as  
20 provide guidance to the Board as to what a person of skill in the art would  
21 have done at the time and would have thought was an obvious modification  
22 of Matsumoto or Conrad '630.

23 JUDGE TARTAL: Thank you, Counsel.

24 MS. DEAN: So, continuing on and again, you know, we're dealing  
25 with Dyson. So, here for ground four, Petitioners rely exclusively on Dyson  
26 for disclosure of claim limitation 1[d]. And you can see here from their

1 petition they're relying on Dyson. And again, as explained before, Dyson  
2 does not disclose the handle axis and the longitudinal axis intersecting  
3 within the vacuum cleaner.

4 And so, now we move to address secondary considerations supporting  
5 a finding of non-obviousness. And here secondary considerations support a  
6 finding is non-obviousness because there's a significant nexus, moving to  
7 slide 47, there's a sufficient nexus between the secondary considerations and  
8 the claimed and novel features of the challenged claims. And there is strong  
9 evidence of long-felt need and industry praise for the claimed point-and-  
10 shoot feature. Petitioners mainly argue that the point-and-shoot feature is  
11 not relevant to limitation 1[d] which they say concerns the handle which  
12 we've been talking a lot about today.

13 And here you can see, I apologize, I'm moving to slide 48. You can  
14 see limitation 1[d] which is highlighted here. The limitation 1[d] specifies a  
15 handle inclined at a certain angle with respect to the dustbin such that the  
16 dirt can be released from the dustbin at an angle that is more ergonomic and  
17 user friendly.

18 Turning to slide 49, you see that the '687 Patent explains that the  
19 invention disclosed in the '687 Patent is a handheld vacuum cleaner in  
20 accordance with the invention can be emptied by pointing the cyclonic  
21 separating unit away from the user and opening the end portion while  
22 maintaining a natural grip on the handle. So, you have this point-and-shoot  
23 mechanism, as we're colloquially calling it, and as it's called in a lot of the  
24 industry praise and the marketing materials. And so, it is clear that  
25 limitation 1[d], which again, I'm moving back to slide 48, contributes to this  
26 point-and-shoot feature where a user can point the dustbin at the trash can,

1 which would relate to the way the handle is oriented relative to the  
2 longitudinal axis of the cyclonic separating unit within limitation 1[d] and  
3 release the dirt, which is more closely associated with the end wall limitation  
4 1[c].

5         So, Petitioners' argument that this point-and-shoot feature is not  
6 related to limitation 1[d] fails. And here you can see that -- you can see an  
7 illustration of this explanation. So, on the right-hand side is Dyson V10, and  
8 this is slide 50. And you can see the handle axis and the longitudinal axis of  
9 the cyclonic separating unit, and they're intersecting. And then if you look  
10 on the left-hand side of the slide, you can see the earlier vacuum, the V6,  
11 and you see that the handle axis and the longitudinal axis of the cyclonic  
12 separating unit do not intersect within the vacuum. And this change in  
13 configuration of the patent relates to the point-and-shoot features. And if we  
14 turn to slides 51, 52, and 53, you'll see a variety of industry articles and  
15 praise showing that this point-and-shoot feature was something that was  
16 receiving praise and it satisfied a long-felt need.

17         Here it says Dyson has changed the orientation of the Cyclone V10's  
18 dustbin, facilitating an improved point-and-shoot method for emptying it.  
19 It's definitely a lot easier to dump its contents into a trash can without  
20 spilling dust everywhere. And so, you know, you're pointing it in, putting  
21 that end into the trash can and releasing it. And that's related to this changed  
22 orientation of the longitudinal axis of the cyclonic separating unit relative to  
23 the handle. And you can see additional evidence on slides 52 and 53 of  
24 other examples of industry praise identifying new and improved abilities  
25 relating to this point-and-shoot feature that's tied to limitation 1[d].

1           And thank you, Your Honors. Mr. Emerick, do you have anything  
2 before we rest?

3           MR. EMERICK: Yes, just to answer a question from the Board  
4 regarding how to weigh benefits and drawbacks of an invention. I think my  
5 understanding is just getting back to Graham and KSR that we look to again  
6 what a person of skill in the art at the time of -- recognized with respect to  
7 benefits and drawbacks and then would that recognition of certain benefits  
8 and certain drawbacks have motivated the combination. So, I understand  
9 that's probably a less helpful answer, but that's the framework that I believe  
10 under KSR and Graham is what we should be looking at.

11          JUDGE IPPOLITO: You still have about 15 minutes of the 45  
12 allotted. I'm not sure if you want to use any of that or move some of it to  
13 your sur-rebuttal. That's a lot of time for the sur-rebuttal. What would you  
14 like to do? Anything else you'd like to cover? The timer's still going.

15          MR. EMERICK: Yeah. Understood. Ms. Dean, if there's anything  
16 else; we can reserve the rest of our time for sur-rebuttal. And candidly, we  
17 may not need all of our time.

18          MS. DEAN: We can reserve the rest of our time for sur-rebuttal.

19          JUDGE MEYERS: All right, and how much time is remaining for  
20 sur-rebuttal?

21          JUDGE IPPOLITO: About 15 plus 15. So, that would be about half  
22 the time. I think that's not more than the opening but it's about the same.

23          JUDGE MEYERS: All right, well, excellent job Ms. Dean. You will  
24 have 30 minutes left for sur-rebuttal. Petitioner, you may begin when you're  
25 ready. I believe you have 15 minutes left for rebuttal.

1           MR. BUROKER: Yes, Your Honor. Let me start where Judge Tartal  
2 had the question. Let me see if I can go to slide 12. I think that this is an  
3 important point. Most of what we heard from Patent Owner here related to  
4 disadvantages of having a handle at the rear. But that is not what the issue is  
5 because Conrad '630 already discloses expressly having a handle at the rear.  
6 The question is what would that shape of the rearward located handle look  
7 like? And the modification we're proposing for into the obviousness ground  
8 is to have that shape be a pistol grip configuration. Now there may be  
9 disadvantages of having a handle at the rear just as there are disadvantages  
10 of having at the top, which is shown on '630. But that doesn't change the  
11 fact that Conrad '630 expressly discloses putting it at the rear. So, the  
12 modification then is just to replace that rearward handle with a pistol grip  
13 which we provided many, many reasons why a person of skill in the art  
14 would look to that.

15           Now I do want to look at slide 16. I'm going the wrong way. Fifteen,  
16 excuse me, 15. So, we heard a lot of talk about torque and there being more  
17 torque. Well, that may be true in one or two uses of the proposed modified  
18 design, but it's certainly not true as we see it here in slide 15, because the  
19 tool can be used on a flat surface such as a couch or a countertop or  
20 something else that's above waist level. When it's resting on that surface,  
21 there will be no torque on the hand. So, that's an instance in which there's a  
22 benefit to having a pistol grip handle for easier control as you push the tool  
23 across that surface. And there is no disadvantage to that design.

24           Additionally, I wanted to talk about then slide 20. Sorry, we can look  
25 here at slide 18 and I'll use this as an example. What we see here on slide 18  
26 on the left is an example where there's a teaching in this art to use tools.

1 And if you have a crevice tool and you use the crevice tool like it's typically  
2 used, which means maybe point it to the corner of a room or getting deep  
3 inside the couch, it's going to be used at an angle. And if you use that tool at  
4 an angle, all of the weight, the center of gravity of the weight of that tool  
5 will be below the handle, which is exactly what Conrad '787 was talking  
6 about.

7 In fact, if you look at, find Conrad '787 direction, here, this is figure  
8 96 of slide 13. Conrad '787, you see the handle there. And in that situation,  
9 of course, the weight is shown being below that handle which you talked  
10 about making it easier to pick up and place down. That angle that you see  
11 here in Figure 96 is exactly the angle that you would use the proposed  
12 modified device with a crevice tool on to use to clean in crevices. It would  
13 be at that roughly 45 degree angle, which in that case the handle would  
14 indeed have all of the weight lower.

15 So, to go back to the other question that was asked by Judge Tartal,  
16 when we're looking at obviousness, the question is, would a person of skill  
17 in the art be motivated to do something; and where there is a benefit to that  
18 something that's recognized in the art that weighs heavily in favor of it being  
19 an obvious modification. To the extent that there are disadvantages,  
20 certainly you need to look at those too. But there's no teaching away here. I  
21 think I heard the term teaching away. And the Institution Decision  
22 recognized that teaching away is a very specific requirement under the law  
23 that requires that the reference have to explicitly disparage something. All  
24 of the text that we saw from Conrad '787 in Dyson merely says preferably;  
25 doesn't say that you would never want to do something. As we see here,  
26 there is a benefit to the tool having the handle at the rear, having that pistol

1 grip configuration, because it's easier to manage than a tool, a handle that  
2 may look like Conrad '630's handle, which looks -- at the right slide, which  
3 looks like that one. So, if you just move that one to the rear, maybe that  
4 would be convenient. But we know that pistol grip handle is more  
5 convenient to use.

6 Only to talk about again this element 1[d] and element 2 again that  
7 relates just to ground --

8 JUDGE TARTAL: Can I just interrupt quickly and --

9 MR. BUROKER: Sure. Sure, go ahead.

10 JUDGE TARTAL: -- ask you, at least give you the chance to  
11 respond. I think that Patent Owner indicated that in Conrad '630 the  
12 reference to moving the handle to the rear, maybe it would be referring to a  
13 handle similar to the one in Matsumoto, which is a flat handle, not a pistol  
14 grip handle, which would not be a pistol grip and would also avoid the issues  
15 that Patent Owner raised with torque if you used a pistol grip handle in the  
16 back. And that was sort of the idea as to why the expressed disclosure was  
17 insufficient, as I understand it, in Conrad '630. Did you have a particular  
18 response to that?

19 MR. BUROKER: Well, I'm not sure I understood the first part of  
20 that. But it's our view that when it says that the handle 102 may be provided  
21 at the rear, it's talking literally about the handle that's of that shape being at  
22 the rear. And the rear is pointed to as being the middle of the back planar  
23 surface there. So, if you -- I think literally what that says is you would take  
24 102 and put it at the rear, which would have it in the vertical direction, not in  
25 an extended version. If you were going to say that, the text would have said  
26 near the rear or at the end or extending from the rear. It doesn't say that. It

1 says at the rear. And then the second step of course is it also tells you, and  
2 you can move it, you can change its design, which would lead a person of  
3 skill in the art to think, well, if it's at the rear, what's the better shape for a  
4 handle at the rear and would then arrive at a design that's in either in Conrad  
5 '787 or Dyson. I hope, did I answer your question?

6 JUDGE TARTAL: I think so. Just to clarify, I think you began with  
7 you didn't understand the first part of that. Did you mean the first part of the  
8 question or did you mean --

9 MR. BUROKER: Yeah, the first part of your question. I didn't hear  
10 them suggest that you take a handle like Matsumoto, which is just a pipe. I  
11 didn't understand them to be making that argument in their, at least on their  
12 Patent Owner's response or the sur-reply.

13 JUDGE TARTAL: I think if I understood, and that would be one  
14 question is if it's in the Patent Owner's response. But I think Patent Owner  
15 was indicating that if you used a handle similar to Matsumoto --

16 MR. BUROKER: Mm-hmm?

17 JUDGE TARTAL: -- which is a flat handle --

18 MR. BUROKER: Right.

19 JUDGE TARTAL: -- with Conrad '630 in the rear, that would be  
20 consistent with what Conrad '630 was disclosing, which is you could use a  
21 different handle design in a different location, including at the rear. And that  
22 by using the flat handle, that would have been a way of avoiding the torque  
23 issues. And so, as I understood, that was a point Patent Owner was making,  
24 which is that Conrad '630 could be consistently understood to both suggest a  
25 handle at the rear and also not, you know, not be suggesting, essentially, a  
26 reason to combine it with a pistol grip.

1 MR. BUROKER: Okay. I don't know what they're -- I don't recall  
2 that argument being expressed in that way in the materials. But my view of  
3 it is that their argument is that any handle that's at the rear is going to have  
4 torque issues and Matsumoto shaped design wouldn't solve those torque  
5 issues. The response to that of course is that depends on the use. There's no  
6 torque issue, as we see it here, in figure 6, if you were pushing it across the  
7 couch or across the countertop, there's no torque issue. Or if you're using it  
8 below your waist, there's no torque issue. In fact, if you're using it above  
9 your head to clean the top of a drapery, there would be no torque issue. In  
10 fact, there'd be less torque issue because the device would be in line with  
11 your hand and elbow. Whereas, if you're holding it on the top, you would  
12 have your wrist bent to be able to reach high. Whereas, if your wrist is not  
13 bent, it's easier to reach those higher surfaces.

14 So, and this is all that, what our expert said is it all depends on use.  
15 And there's no limitation in these claims as a specific use. And so, a person  
16 of skill in the art would like the optionality. And that's why we talked about  
17 moving, not only moving the handle but also extending the handle to have  
18 more options for the user depending on use.

19 So, I want to talk about this element 1[d] and 2 just to make sure I'm  
20 clear. For grounds 2 and 4, we are not proposing taking Dyson's handle and  
21 its cyclonic separating unit orientation, which is vertical, which would have  
22 an angle that's less than 85 degrees. We are not -- aren't making that  
23 argument. What we're saying is that Dyson teaches the pistol grip  
24 configuration that has the right angle. And if you place that at the rear of  
25 Conrad '630 or at the rear of Matsumoto, it would have the required 85 to  
26 100 degrees orientation with respect to the longitudinal axis of the cyclones

1 in Conrad '630 or Matsumoto. That was our argument. That's what's in the  
2 petition. And I don't think they've disputed that that is true. So, I just want  
3 to make sure that that is clear on the record.

4 With regard to Matsumoto. To be clear, miniaturization is not  
5 required. That's only true if you find the limitation, the handheld limitation  
6 of the preamble to be limiting. If it's not required, then all of the testimony  
7 that they cite about that Matsumoto doesn't disclose a handheld tool is not  
8 relevant.

9 The quote of Mr. Fester about miniaturization. Claims don't talk  
10 about a miniaturized handheld tool. So, that question was a little bit  
11 confusing. And that's probably why he answered that it doesn't disclose a  
12 miniaturized handheld tool. Question is whether or not you could reduce  
13 and remove the pipes to make it smaller. And he certainly said that. That's  
14 something a person of skill in the art would have recognized from  
15 Matsumoto. When you do that, you can then carry it around and use it as a  
16 handheld tool.

17 And finally, with regard to commercial success, I don't see any of the  
18 slides that were cited or any of the evidence that was actually cited in the  
19 Patent Owner response as establishing a long-felt need. At best, these  
20 articles say this is a new feature for Dyson. These are a new feature for  
21 Dyson as compared to its previous products. Not saying this is a new feature  
22 that nobody in the world had ever seen or that this feature is one that has  
23 been a long-felt need. So, this alleged evidence of secondary consideration  
24 is very minimal in terms of what it says. It says, merely, that Dyson has  
25 made some changes that make its products better. That is not the kind of

1 evidence we submit overcomes in evidence -- overcomes the evidence we  
2 have of obviousness.

3 So, unless there are any additional questions, I think that those are the  
4 points I wanted to make in rebuttal, I concede any remaining time that I  
5 have.

6 JUDGE IPPOLITO: No questions for me.

7 JUDGE MEYERS: No questions here.

8 JUDGE TARTAL: No, I have no additional questions. Thank you,  
9 Counsel.

10 JUDGE MEYERS: All right. Thank you, Mr. Buroker. Patent  
11 Owner, you have 30 minutes left. Begin when you're ready.

12 MR. EMERICK: Ms. Dean, you can go ahead and with your rebuttal,  
13 your sur-rebuttal. And then, I have a few points to rebut Mr. Buroker's  
14 points that I'll add on, as well as correct or clarify any statements.

15 MS. DEAN: So, first, Patent Owner is responding to the  
16 combinations proposed by Petitioner. And so, Patent Owners are looking at  
17 the combination that combinations that Petitioner proposed, which is shown  
18 again, hold on I'm getting to the right slide. Let me share my screen again.  
19 On slide 12, here you can see Petitioners proposed modification of Conrad  
20 '630, which is also there, which is for both grounds 1 and grounds 2.

21 And then with respect to the disadvantages and advantages, in  
22 addition, Petitioners said that there were no disadvantages to this extension  
23 of a handle to adding onto the handle. And in addition to all the evidence  
24 that we've talked about previously, I'd like to point to Mr. Davidshofer's  
25 testimony, which I'll pull up, where he testifies about these other  
26 disadvantages. So, I'm going to Exhibit 1011, I'm about to share my screen

1 here. And you can see here there's a discussion of advantages and  
2 disadvantages. And he says -- and the question was, would keeping the  
3 original handle while adding a second handle, alternative handle that you  
4 drew, maintain the advantages of the original handle? And he said, with the  
5 exception of adding cost, weight, and packaging. So, in addition to the  
6 issues with torque related to the design of adding a pistol grip handle at the  
7 back of Conrad '630, you would also have these issues of cost, weight, and  
8 packaging, which would further counsel a person with skill in the art to look  
9 to other designs for vacuums would teach away from what the proposed  
10 modification that Petitioner has offered.

11 And with respect to secondary considerations. And I'm going to  
12 switch back to the slide deck.

13 JUDGE TARTAL: Counsel, before you move on, can I just quickly  
14 ask, and I think Petitioners' comment before was noting the high bar for  
15 teaching away, but in your arguments you just mentioned teaching away.  
16 Are there particular disclosures you're relying on for the express notion that  
17 there is a teaching away in the references that are being relied on, or are you  
18 referring to just the broader concept of there being benefits and detriments?  
19 The detriments are teaching away, to the extent that they discourage that  
20 aren't meeting the higher standard of an actual teaching away in the  
21 reference itself?

22 MS. DEAN: Yeah. So, we are certainly looking at the general  
23 advantages and disadvantages, but we are also looking at the specific  
24 disclosures in each of the references. And I will share my screen again.  
25 Particularly the references that come from the parties. So, that would be the  
26 Conrad references and the Dyson reference. And so, if we go to slide 15 and

1 you'll see where in Conrad '787 it talks about how the handvac is most  
2 comfortably operated in an orientation that doesn't require an application of  
3 torque. And it says accordingly, the center of gravity may be vertically  
4 aligned below the handle in the comfortable in-use orientation of the  
5 handvac. And then if we move down again to slide 17, it discusses the  
6 positioning of the center of gravity aligned vertically below the handle such  
7 that it is easier for a user to operate the vacuum.

8 And if we continue to move down to slide 26 you'll see in the Dyson  
9 reference again more disclosure about the positioning of the heavy  
10 component of the vacuum cleaner relative to the hand grip and the  
11 implications of having such a design. And if we go back to again Exhibit  
12 1007 which is the Dyson reference, you see the description of this dumbbell  
13 like effect. And if you go down what it says is it talks about the importance  
14 of this. And what is important is that the airflow generator lies adjacent to  
15 the first end of the handgrip and the (inaudible) lies adjacent to the second  
16 end of the hand grip.

17 So, if you look at each of these references, there are specific  
18 disclosures in the references that would counsel a person feeling the art that  
19 a combination such as what is supposed by Petitioner would not be  
20 ergonomic and would not be desirable and would lead them away from  
21 coming up with such a design and combining those things in the way that is  
22 proposed by Petitioner.

23 JUDGE TARTAL: Counsel, one follow-up question. Would you  
24 agree that the claim itself, however, the challenged claims, don't require any  
25 particular distribution of weight?

1 MS. DEAN: I would agree that the claims themselves do not require  
2 any particular distribution of weight.

3 JUDGE TARTAL: Right. Okay. Thank you.

4 MS. DEAN: Mr. Emerick, do you have anything to add?

5 MR. EMERICK: Thank you, Ms. Dean. And with respect to the  
6 '630's statement that you can put the handle at the rear and Mr. Buroker's  
7 rebuttal with respect to that point and Matsumoto as well. My reading of  
8 this reference and where it says you can put Conrad '630's handle at the rear,  
9 I don't think either myself or a person of skill in the art would understand  
10 that to say that you can, or should, or would rotate the existing handle in  
11 Conrad '630 by 90 degrees. In other words, just because Conrad '630 says  
12 you can take its handle, I think that's 102, and put it at the rear, that that  
13 would at all motivate somebody to rotate it 90 degrees into a pistol grip  
14 handle.

15 And as part of that I mentioned the Matsumoto reference, as I would  
16 say, yet another example in the art of -- and there are lots of examples in the  
17 art like this, where you have a vacuum like Conrad '630 or Matsumoto,  
18 where you've got this tube of a bunch of components and then coming out  
19 the back of that tube of components, you'll have a relatively horizontal  
20 handle. And so, and Matsumoto has this kind of relatively horizontal handle  
21 coming out of the back of figure 1 here. And where the weight of this  
22 handle is supported by a horizontal hanging grip, so to speak. And so, you  
23 see a lot of that in the art, this sort of hanging grip, zero torque on the user's  
24 wrist. And you see that's going back 100-plus years.

25 What you don't see in the art is somebody taking that handle and  
26 rotating it 90 degrees so that you've got something vertical and straight up

1 and down where all the weight is in front of the user's hand and is rotating  
2 the user's wrist and torquing the user's wrist. And you don't see that for the  
3 reasons that Petitioners' art -- and I say Petitioners' art, although some of it's  
4 Dyson. But the reason Petitioners' art that they've advanced says you don't  
5 do that is because of the torque issue on the wrist. And when you have that  
6 vertical handle, you want weight above and below the handle. Why do you  
7 want that weight above and below the handle? It's so that you enable  
8 cleaning from floor to ceiling. And so, that whatever you, whatever position  
9 you're in, whether you're cleaning the floor, whether you're cleaning a  
10 desktop, the drapes, or the ceiling, you have enabled all of those use cases.

11 And so, Mr. Buroker put a lot of emphasis on the word at to suggest  
12 that a person of skill in the art would read the word at as saying you would  
13 be suggesting or motivating a 90 degree rotation of the handle. I frankly  
14 don't follow. There's nothing about the word at that would cause a person of  
15 skill in the art to rotate this handle 90 degrees, including where the very art  
16 that they're relying on in the Conrad and Dyson references talk about how  
17 the advantageous way to use a vertical handle is with weight around it,  
18 above and below it.

19 So, Mr. Buroker's other response was that, well, the handle can be of  
20 any design. But I don't think that that enables, or discloses, or teaches, or  
21 even suggests, by any stretch, the universe of handles or in particular a  
22 vertical one. That's just sort of a blank, I read that as a blanket statement  
23 that other handles could be used. But in terms of motivation to use any  
24 particular handle and particular especially one that the same inventor has  
25 said if you're going to use a vertical one, you should put weight below it, I  
26 don't see any motivation there, from that statement.

1           One of Mr. Buroker's other points in response on this issue was that  
2 while there are still -- even if this has a torque issue, there are still use cases  
3 for which you could use this handle that has torque problems. For example,  
4 by resting the weight of the vacuum on a desktop surface. Well, the problem  
5 with that is you've destroyed the rest of the use cases, which are the full  
6 gamut of floor to ceiling. So, cleaning high above, cleaning your drapes,  
7 cleaning elsewhere, or simply carrying this around when you don't have the  
8 support of a desktop or a floor to bear that weight. And again, just getting  
9 back to this isn't just me saying this is the Conrad reference, the Conrad '787  
10 reference and the Dyson reference, that they are relying on as invalidity  
11 grounds are saying put weight above and below these handles, otherwise  
12 you've got a torque problem.

13           MS. DEAN: Mr. Emerick, if you don't mind, I have one other point  
14 in response to the Judge's question.

15           MR. EMERICK: Yes, go ahead, Ms. Dean, if you don't, if the Board  
16 doesn't mind us tag teaming as part of the LEAP, please go ahead.

17           MS. DEAN: And so, related to, we talked a lot about the Dyson  
18 references and to go back to the point about teaching away. I'm going to  
19 share my screen again and we're going to go to Matsumoto. And Petitioners'  
20 argument regarding Matsumoto relies on this language about, you know,  
21 how it is possible to miniaturize the vacuum cleaner in part and part of what  
22 Matsumoto says is this helps reduce the space occupied by the handle. And  
23 if you compare, and this is discussed in Patent Owner's response around  
24 page 61, that if you compare the handle, Matsumoto's handle here in pink,  
25 and then if you look at the handle, how you attach that, and if you look at the  
26 handle here that Petitioners are proposing, it does not reduce the space

1 occupied by the handle as the language the Petitioners rely on in Matsumoto  
2 suggests would be the benefit of the miniaturization, it increases the size of  
3 this handle. It makes it more unwieldy. And therefore, this language in  
4 Matsumoto that Petitioners are relying on would teach away from the  
5 proposed modification that they've offered to the handle. And I just wanted  
6 to supplement my answer to the question.

7 MR. EMERICK: Thank you, Ms. Dean. So, Jay Emerick, again, just  
8 to address the Board's questions with respect to teaching away. We  
9 understand it's a high bar and that it's higher than simply weighing  
10 advantages and disadvantages. But with respect to the weighing of  
11 advantages and disadvantages, again, I think it gets back to Graham and  
12 KSR about what a person of skill in the art would have recognized and what  
13 a person of skill in the art would have been motivated to do in light of the  
14 benefits and drawbacks that they would have recognized.

15 And so, again I get back to the Conrad '787 reference and the Dyson  
16 reference. Prior to the time of the '687 Patent, what were POSAs saying  
17 about vertically oriented handles? They were saying it's preferable to put  
18 weight above and below them because of the torque issue and the  
19 disclosures of Dyson and Conrad. Again, at the relevant time, what were  
20 POSAs actually doing with these handles? They were putting weight above  
21 and below them.

22 And so, as they considered vertical handles and looked at the benefits  
23 and drawbacks of a vacuum with a vertical handle, what solution did they  
24 come to? The solutions that they came to were put the weight above and  
25 below. They weren't putting all of the weight out in front. And tellingly,  
26 Petitioners' IPR does not have a reference that has a vertically or near

1 vertically oriented handle that puts all the weight out in front of those. That  
2 art -- they couldn't find any art like that because frankly, I'm not aware of art  
3 that had that. And again, the reason the art doesn't have it is because of the  
4 reasons that the Conrad '787 reference and the Dyson reference say. It's  
5 simply too disadvantageous to outweigh any potential benefit.

6 So, with that I think we've, unless there are questions from the Board,  
7 can rest on our papers for the remaining items.

8 JUDGE MEYERS: Okay. It doesn't look like there's any further  
9 questions. Thank you Mr. Emerick. And thank you Ms. Dean for  
10 participating in our LEAP program. Excellent job and we look forward to  
11 seeing more of you. That will conclude your arguments for the 01322 IPR.  
12 We're now off the record, but before we take a short 10-minute recess, let's  
13 see if the court reporters have questions.

14 (Whereupon, the proceedings at 2:37 p.m. were concluded.)

IPR2023-01322  
Patent 10,433,687 B2

PETITIONER:

Brian Buroker  
Nathan Curtis  
Shuo Zhang  
Vivian Lu  
GIBSON, DUNN & CRUTCHER LLP  
bburoker@gibsondunn.com  
ncurtis@gibsondunn.com  
szhang@gibsondunn.com  
vlu@gibsondunn.com

PATENT OWNER:

Christian Huehns  
Matthew Hershkowitz  
KIRKLAND & ELLIS LLP  
christian.huehns@kirkland.com  
matt.hershkowitz@kirkland.com