# UNITED STATES PATENT AND TRADEMARK OFFICE

# BEFORE THE PATENT TRIAL AND APPEAL BOARD

RESMED LIMITED, RESMED, INC., and RESMED CORP., Petitioners,

v.

# FISHER & PAYKEL HEALTHCARE LIMITED, Patent Owner.

Case IPR2016-01716 (Patent 8,550,072)

Case IPR2016-01717 (Patent 8,550,072)

Case IPR2016-01719 (Patent 6,398,197)

Case IPR2016-01725 (Patent 7,111,624)

Case IPR2016-01727 (Patent 7,111,624)

Case IPR2016-01729 (Patent 8,091,547)

Case IPR2016-01730 (Patent 8,091,547)

Case IPR2016-01731 (Patent 8,091,547)

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Record of Oral Hearing Held: December 6, 2017

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Before HYUN J. JUNG, CARL M. DEFRANCO, and MICHAEL L. WOODS, *Administrative Patent Judges*.

# APPEARANCES:

# ON BEHALF OF THE PETITIONER:

FRANK SCHERKENBACH, ESQUIRE Fish & Richardson P.C. One Marina Park Drive Boston, MA 02210

# ON BEHALF OF THE PATENT OWNER:

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The above-entitled matters came on for hearing on Wednesday, December 6, 2017 at 10 a.m., at the U.S. Patent and Trademark Office, Madison Building East, 600 Dulany Street, Alexandria, Virginia, before Walter Murphy, Notary Public.

# PROCEEDINGS

1 2 JUDGE JUNG: Good morning. Please be seated. This is the oral 3 hearing for cases IPR's 2016-1716, 1717, 1719, 1725, 1727, and 1729 4 through 1731 between Petitioners ResMed Limited, ResMed, Incorporated, 5 ResMed Corporation and Patent Owner Fisher & Paykel Healthcare Limited. 6 To specify for the record in the 1716 and 1717 cases, Petitioners 7 challenge claims in U.S. Patent No. 8,550,072. In the 1719 case Petitioners 8 challenge claims in U.S. Patent No. 6,398,197. In the 1725 and the 1727 9 cases, Petitioner challenges claims in U.S. Patent No. 7,111,624, and in the 10 final 1729, 1730 and 1731 cases Petitioners challenge claims in U.S. Patent 11 No. 8,091,547. 12 Starting with counsel for Petitioners followed by counsel for Patent 13 Owner, please stand at the podium and state your names for the record. 14 MR. SCHERKENBACH: Good morning, Your Honors. Frank 15 Scherkenbach of Fish & Richardson for the Petitioner, ResMed. I'd like to 16 introduce the people who will be helping me today. Andrew Dommer sitting 17 with me at counsel table, Mike Hawkins is here, he's the lead counsel on these proceedings -- thank for letting me up here pro hac -- and then from 18 19 the client, ResMed, we have Mike Rider, General Counsel, Americas, and 20 Paul Green, Special Counsel for Intellectual Property. 21 JUDGE JUNG: Welcome. 22 MR. JENNINGS: Good morning, Your Honors. Joe Jennings of 23 Knobbe Martens for the Patent Owner, Fisher & Paykel Healthcare. I'll be

- 1 presenting today together with my colleague also from Knobbe Martens,
- 2 Matt Bellinger and also joining me today are my colleagues from Knobbe
- 3 Martens Rob Roby, Jarom Kesler, and from Fisher & Paykel, Jon Harwood.
- 4 JUDGE JUNG: Welcome to you as well. As stated in the Trial
- 5 Hearing Order, each party has 75 minutes of total time to present positions
- 6 in all these cases. Petitioners will proceed first followed by Patent Owner
- 7 and Petitioners may reserve rebuttal time, and as requested in our Trial
- 8 Hearing Order we asked the parties to confer and agree on an order of
- 9 presentation of these cases. Mr. Scherkenbach, have the parties conferred
- and agreed to an order of the presentation of these cases?
- MR. SCHERKENBACH: We haven't explicitly done that except to
- say that we each have a set of slides, but we're the treating the three slide-on
- 13 cases together --
- 14 JUDGE JUNG: Okay.
- MR. SCHERKENBACH: -- and we're treating the '197 separately.
- 16 JUDGE JUNG: All right.
- MR. SCHERKENBACH: But we've exchanged the slides and we
- understand the order they're presenting. We're going to take it in reverse
- 19 here and address the last patent they address first in our presentation to rebut
- 20 those and then deal with the slide-on patents.
- JUDGE JUNG: Okay. Thank you, gentlemen. And just to be clear
- 22 all the cases will be presented at once --
- 23 MR.SCHERKENBACH: Yes.

1 JUDGE JUNG: -- (indiscernible) order. Thank you. And one more 2 housekeeping item, Mr. Jennings. In the 1729 case, Exhibit 2007 is 3 supposed to be a statutory disclaimer. It's actually a notice and the statutory 4 disclaimer isn't filed in the case. I need you to file the actual statutory 5 disclaimer for the 1729 case. 6 MR. JENNINGS: We will do that, Your Honor. 7 JUDGE JUNG: All right. Thank you, Mr. Jennings. All that said, 8 Mr. Scherkenbach you may proceed when you're ready. 9 MR. SCHERKENBACH: Thank you, Your Honor. I understand the 10 Board has our slides. I will endeavor for the benefit of Judge Woods to 11 identify the slide numbers as I go through them. As I indicated, we'd like to 12 start with the three --13 JUDGE JUNG: Oh, Mr. Scherkenbach, before you continue, how 14 much time would you like? 15 MR. SCHERKENBACH: Oh, rebuttal. I'm sorry. Fifteen minutes, 16 please, for rebuttal. 17 JUDGE JUNG: So I'm going to be addressing what we call the three 18 slide-on patents first, the '624, the '547, the '072, and turning to my slide 2 I 19 wanted to start up front with two sort of basic principles. Obviously this is 20 an obviousness challenge at least now, and there are two principles I think 21 we're going to hear a lot throughout the proceedings. One is what's the 22 person of ordinary skill in the art and how skilled is this person? 23 There's substantial agreement really between the parties on what that

level of skill is, as shown here on slide 2. This is Mr. Virr's articulation of

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level skill in the art and Dr. Schneider for Patent Owner has not 1 2 substantively disagreed with it and says in fact that his analysis would be the 3 same using this definition as using Mr. Virr's and this is a skilled person, 4 okay. It's a person with a technical degree and at least five years of relevant 5 product design experience in the field of medical devices or respiratory 6 theory. So we have a very skilled person with what are pretty basic 7 mechanical inventions. 8 A second principle that struck me as particularly important in these 9 proceedings is the legal principle that the test, when you're analyzing 10 obviousness it's not bodily incorporation, and I know the Board knows this because you've noted it in your Institution decisions and it's a really 11 important principle I think because if you look in general at the arguments of 12 13 Patent Owner and at the arguments of their expert, Dr. Schneider, they really 14 do for the most part all reduce to saying well you couldn't take that exact 15 example from prior art reference A and put it into prior art reference B, and 16 I'm going to cover some of the more important examples of that but I think 17 that approach by Fisher & Paykel explains why we think they err in their positions. 18 19 Okay. So let's move then to the substance of the three slide-on 20 patents and the slide 4 now I'm on, we tried to identify the issues that seem 21 to us to be the most pertinent after all the briefing has been in, and I'm not 22 going to try obviously to repeat everything that's in the record here, it's not

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possible.

1 The first stake I'd like to put in the ground here is the point that what 2 is the purported point of novelty or what was it at the time these patents were 3 filed, and it's a very simple thing. Slide 5. Moving the patient outlet from 4 the top of the humidifier chamber to the housing of a CPAP. That's it. You 5 know, I won't endeavor to read all the material on slide 5 here but we have 6 example claim from the '547, claim 1. Gases line outlet in said housing. 7 That's the key. It's in the housing, not in the top of the humidifier chamber. 8 The admitted prior art had slide-on humidifier chambers that were capable of 9 being inserted and removed with a single sliding movement but the 10 breathing conduit was in the top of the chamber, not the housing. So pretty 11 much everything in these claims was known in the prior art except this one 12 feature. 13 So the example, or a probably most important example of what the 14 prior art was is this HC200 product. In this case of course it's the manuals 15 that are prior art that we rely on and it is a slide-on humidifier that has, as we 16 will see and I think it's basically undisputed, has all the limitations of the 17 claims with the exception of the moving the tube to the housing, the outlet 18 tube to the housing, and so that raises the question then is this feature of the outlet on the housing in the prior art a), and b) if it is would there have been 19 20 a motivation to use it in combination with the references that we rely on. 21 So now I'm on slide 7 and it is undisputed that that feature is in the 22 prior art. It's in Netzer. It's item 4 in Netzer is the outlet and housing. This 23 figure we're looking at here, well actually we're looking 2, figure 2 and 24 figure 1. They're both top views of a CPAP device and the patient outlet 4

is on the housing of the device, not on the humidifier chamber which would 1 2 be the item 9 shown there at the lower right in figure 1. That's a slide in, 3 slide out humidifier chamber. It goes in and out of the housing and it 4 enables, you know, easy cleaning, easy access for that purpose and you don't 5 have to disconnect and reconnect the breathing hose in order to do that. I 6 mean that is exactly what was alleged to be the invention of the slide-on 7 patents by Fisher & Paykel. 8 There's another example in the prior art showing something similar, 9 and that's Kenyon. Here the patient outlet is item 14, we're looking at 10 figure 1 from Kenyon on slide 8, and we've just color coded the housing 11 here in green so it's a little bit clearer where the housing is and what's on one side of it versus the other side, and no dispute that the patient outlet is on 12 13 the housing in Kenyon. Now I'm going to come back to Kenyon later in the 14 context of whether it discloses a single slide-on motion. There's a dispute 15 about that but for present purposes it's safe to say it's undisputed that 16 Kenyon has the patient outlet on the housing also, and so it's largely as a 17 result of this that you have a somewhat unusual situation here where the 18 Patent Owner has affirmatively disclaimed really the broadest claims of 19 these three slide-on patents and in fact in the '072, an affirmative disclaimer 20 of claim 6, in the '624 an affirmative disclaimer of claims 1 and 2, '547 they 21 have not filed a disclaimer but they have not argued the patentability in their 22 response of claims 24 and 25. So at the end of the day we end up in the 23 same place which is to say that the broad invention as originally conceived

and claimed is concededly no longer in play here, and we're talking about 1 2 more specific aspects of the invention. 3 I won't repeat -- I have here on slide 9 really just for reference for 4 Your Honors which grounds are now moot. I'm not going to read them into 5 the record. There they are for you and hopefully that's helpful. 6 Okay. So that brings us to the two claim construction issues which 7 Patent Owner has sort of latched on to as a way to salvage something here 8 and these have both come up after the initial briefing and we've got two of 9 them. I'm going to deal with them. First the urging, the so-called urging 10 limitation you see here on slide 10, and then later this auxiliary electrical 11 connection limitation, and the punchline for both is really the same from our 12 perspective and that is this language on its face has a much broader meaning 13 than the meaning that Patent Owner is trying to impose on it, if I can put it 14 that way, and so let's take a look at the evidence on that. 15 Slide 11. The sample claim I'll use here is the '547 claim 1, but this 16 issue for urging arises in one claim of each of the three patents which we've 17 identified there at the lower left. So also 072, claim 7; the '624, claim 3, and 18 the first point I want to make is actually a legal point and that is we're talking about apparatus claims and this language is clearly functional 19 20 language. You know, it's talking about a motion and then furthermore that 21 motion has involved some sort of urging, okay? Now the case law on this as we pointed out in our reply briefs is pretty clear that that sort of functional 22 23 recitation in an apparatus claim is not entitled to patentable weight. Except

in unusual circumstances, it might be if there were something in the intrinsic

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- 1 record that indicated that it was important at the Patent Office in issuing the
- 2 claim. We don't have that here and so we submit that one way the Board
- 3 can sort of crack this nut on the whole urging dispute is to say it's really not
- 4 even material because it's not entitled to patentable weight and so we don't
- 5 have to decide whether it meets the broader meaning that Petitioner says, or
- 6 the narrower meaning that Fisher & Paykel --
- JUDGE DEFRANCO: May I interrupt, Mr. Scherkenbach?
- 8 MR. SCHERKENBACH: Yes, of course.
- 9 JUDGE DEFRANCO: So you're saying we should disregard the
- urging language as functional? Now the urging language is a definition for
- 11 the term single motion; is it not?
- MR. SCHERKENBACH: I don't think it's a definition of single
- 13 motion.
- JUDGE DEFRANCO: Well, let's look at claim 6.
- 15 MR. SCHERKENBACH: Okay.
- JUDGE DEFRANCO: The second clause or I guess it's the third
- 17 clause of humidifying gases return clause, and at the end of that clause it
- says separable connections are made by a single motion, and then claim 7
- 19 goes on to say single motion also urges a base of the chamber in contact with
- 20 the heater. So what defines what that single emotion is?
- MR. SCHERKENBACH: Well I think what they're trying to do is
- define what the apparatus is by how it behaves when it's handled in a
- 23 particular way and that's what the Federal Circuit cases on this say. They
- say look, it's okay to try to define my apparatus with functional language but

- that doesn't mean that the functional language, you know, standing alone as 1 2 it were isn't a positive limitation of the claim. So, for example --3 JUDGE DEFRANCO: Well isn't single motion a positive limitation of this claim? 4 5 MR. SCHERKENBACH: I think only in the sense that you have to 6 have a humidifier chamber that is capable of being inserted and removed 7 from the housing via a single motion. 8 JUDGE DEFRANCO: So that's what they're doing with the urging 9 then, is to find what single motion is? 10 MR. SCHERKENBACH: I agree with, okay, but I should say a 11 couple of additional things here. First of all, there isn't any dispute on this 12 record that the prior art shows the single motion, okay. So we're down to 13 just the urging, what you might say is the urging gloss on the single motion 14 and whether the prior art has that. Our point is that in this case, again I'm 15 not saying in every single case you all would see, in this case that language 16 was never given any patentable weight. It was never argued as a reason for 17 allowance of the claims. It really has only come up in this proceeding and in 18 that context I think if you look at the cases we've cited, and actually there's 19 another one In re Schreiber which we also cite in our papers. It's not on our 20 slide 11, but In re Schreiber, 128 F.3rd 1473 makes the point that the 21 language is relevant to be considered in assessing whether the structure is in 22 the prior art. But that doesn't mean you look at the functional recitation in
- 24 performed? That's the distinction I'm trying to make.

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isolation and say oh, does the prior art show that actual function being

1 Okay. So let's move past the threshold issue and get to the substance 2 on this urging issue and, you know, the first point -- slide 12 now -- is that 3 the claim doesn't say anything about pressing with a force and, you know, 4 that's the meaning that the Patent Owner wants to sort of impose on the 5 urging language. All the claim says is urging, in this example again '547 6 claim 1, urging adjacent and in contact. It doesn't say how you urge. It 7 doesn't say whether you press or don't press, or what you press in particular. 8 It doesn't say you have to press the humidifier chamber on to the plate in 9 some way. 10 JUDGE DEFRANCO: Can you have contact without pressing? 11 MR. SCHERKENBACH: Sure, gravity, and in fact that's how these devices work. There's no pressing necessary because they're horizontal 12 13 slide-on devices. You slide them on and they sit in position. There's no 14 need to press them. 15 JUDGE DEFRANCO: So it's simply the dead weight of the chamber 16 that provides the contact or the pressing or the urging, so to speak? 17 MR. SCHERKENBACH: Correct, correct, and remember I mean it's 18 come back up to sort of the common sense level. These are, you know, 19 they're cylindrical typically shaped containers filled with water which is 20 reasonably heavy, right, and so you push a container of water horizontally 21 and it gets past -- there's some sort of latching mechanism in all these 22 devices -- it gets past the latch and then click, it sits right down. So there 23 isn't even any mechanical engineering needs that you would need a pressing 24 force, which probably explains why by the way you look at the

- specifications, there's no disclosure anywhere of a pressing force of any kind in terms of pressing the chamber on to the heater. That's undisputed,
- 3 so I won't also dwell on that point.
- JUDGE JUNG: Mr. Scherkenbach, before you go on I want to ask you about your statement that there's no disclosure of any pressure
- 6 implicated with the urging language.

MR. SCHERKENBACH: Yes.

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- JUDGE JUNG: But there is one embodiment where the water
  chamber is put in at an angle and when that water chamber is put in at that
  angle and fits on the heating pipe doesn't that provide some pressure?
- MR. SCHERKENBACH: Let me -- I have a slide on that, but the
- 12 answer is it's the same principle. That angle -- bear with me one minute
- here. The angle language, this is my slide 17 -- I'm going to skip forward to
- 14 that. So right, Fisher & Paykel says hey, wait a minute, there's this portion
- of the '547 patent -- and I'm sorry, I think we don't have the specific cite on
- this slide, but it's the '547 patent at column 7, lines 63 to 66 -- that's what
- 17 the Patent Owner points to and they say hey, wait a minute, it's talking about
- 18 you've got your flat heater plate but you're sliding in the humidifier
- 19 chamber at an angle and doesn't that require some sort of pressing force, and
- 20 the answer is twofold. Number one, it doesn't say it requires any pressing
- 21 force and number two, again as a matter of just engineering it's just gravity.
- You know, you take what would be your flat guides in one embodiment and
- you elevate and it's like you're sliding down a hill with this chamber full of
- 24 water, it gets in position and it just sits, you know, just sit on the plate. So

- again, there's no reason you would need to press the chamber against the
- 2 plate --
- 3 JUDGE DEFRANCO: Mr. Scherkenbach?
- 4 MR. SCHERKENBACH: Yes.
- 5 JUDGE DEFRANCO: Does the specification detail why that angle
- 6 slide-on motion is there? Does the specification say something about the
- 7 benefit of doing that?
- 8 MR. SCHERKENBACH: It --
- 9 JUDGE DEFRANCO: Aside from this pressing.
- MR. SCHERKENBACH: It actually doesn't identify a particular
- benefit to be honest. I mean the full language is here on slide 17. It's two
- sentences. It says in this other embodiment you can orient the sort of
- grooves in this way and then it goes on in the language that actually we
- pointed out and the Patent Owner has not really addressed. It says you still
- would have to have the gas inlet and outlet parallel and aligned with the
- direction of the intended slide-on motion, but it doesn't say the advantage to
- having it angled is the following. So I can't help you out on that. There's
- 18 no discussion of it. It's really -- I won't say a throw away but it's unclear
- 19 why this would be a good thing and there's certainly, again, I think the
- 20 important point for present purposes is there's no disclosure of a pressing
- 21 force in this embodiment.
- JUDGE JUNG: Mr. Scherkenbach.
- MR. SCHERKENBACH: Yes.
- JUDGE JUNG: Just one more question.

1 MR. SCHERKENBACH: Sure. 2 JUDGE JUNG: Dr. Schneider testified that shifting was a concern 3 with the earlier CPAP machine. The patient would suddenly get up, yank 4 his mask as he gets up which would cause the CPAP to be yanked off the nightstand. Even though you say there's no explicit words that say urge 5 6 equals pressure or there's no explicit benefit having an angled water 7 chamber, it seems to me that Dr. Schneider being a person of ordinary skill 8 in the art, he understands that this disclosure has an advantage that it might 9 prevent slipping if it's at an angle, for example, in the case when the patient 10 gets up in the middle of the night suddenly. 11 MR. SCHERKENBACH: Well fair question, and what I would say is 12 this. The alternate embodiment discussed here in the '547 patent doesn't 13 envision a different mechanism for keeping the chamber in place once it is 14 slid to the heater plate. So let's go back. All these slide-on patents, what 15 keeps the chamber in place is some sort of blocking mechanism, in all the 16 embodiments it's a spring loaded latch that you press it down, you get the lip 17 started in the groove, you slide that in and then that latch pops back up and 18 locks it in place. So again, that is what keeps the chamber in place if you 19 were to tip it or roll it, or do something with it. It's not pressing, and of 20 course -- sorry, back up. That's true in the horizontal embodiment and for 21 all we know it's true in the angled embodiment too because it doesn't say 22 there's any other mechanism involved. We're only changing the way in 23 which the humidifier chamber is slid on and the second thing I would say is 24 the CPAP -- I mean the patient isn't standing there all night holding the

- chamber on the heater plate, right? I mean all we're talking about is whether 1 2 there's some special force required to put the chamber there in the first 3 place, and so the patient's going to mount it and then go to sleep, and if they 4 subsequently yank the hose when they get up in the middle of the night and 5 they tip the thing over, their hand pressure is not going to be what's keeping 6 that chamber in place. 7 JUDGE JUNG: If it was angled it would probably make it less likely 8 that it would tip over. It would probably complete a 180 degree turn but it's 9 like a 45 degree jar, maybe less. 10 MR. SCHERKENBACH: It might. I mean I wouldn't dispute that. I mean just as a simple matter of physics, I suppose though I think it would 11 12 depend at what angle it was jostled and all that, but again whether it stays in 13 place or doesn't stay in place is going to be a function largely of the latch 14 mechanism which we're not talking about. The urging language in the 15 claims does not pertain to the locking mechanism or the latch mechanism 16 and again, what it does pertain to is the initial mounting of the chamber 17 heater and that is not something again a patient is not going to be holding 18 their hand there on that. 19 So with that, let me go on to I think the second claim construction 20 issue. Oh, I'm sorry, if I could go back because there is one sort of general 21 point. So I mentioned there's no hook in the claim language for the special 22 definition of urging. I wanted to point out that our expert, Mr. Virr, 23 commented on this as well and said look, a person of skill would read these
- 24 patents and understand that they don't contemplate any sort of force pressing

- 1 the chamber base against the heater. We know that you're not challenged by
- 2 cross-examination. You're going to see a lot of that on our slides for the
- 3 slide-on patents because, in fact, Patent Owner didn't take the deposition of
- 4 Mr. Virr before filing its Patent Office response at all and even when they
- 5 did, they had not submitted Mr. Virr's deposition. It's not of record in any
- 6 of the seven IPR's pertaining to the three slide-on patent cases which, again,
- 7 I think is a little unusual that Mr. Virr obviously says a lot in his declarations
- 8 which in substance goes unchallenged.
- 9 It's not just Mr. Virr who says the patents don't describe any pressing
- 10 force. You mentioned Dr. Schneider. He agrees. Slide 15. We did ask him
- in deposition did you see any disclosure of a pressing force? No, I don't.
- 12 Okay.
- So let me go on, just in the interest of time, to the -- oh, well sort of
- last point I guess is this is their entire argument on these three claims that
- 15 have urging is the claim construction argument. The Patent Owner does not
- argue for patentability based on a broader construction of urging. So if they
- don't get this narrow construction of applying this special force, there is no
- argument for the patentability of those three claims.
- So let me go on to the second claim construction issue, the auxiliary
- 20 electrical connection argument. This pertains to, for example, '547 claim 5
- 21 on slide 20, you see this again pertains to three claims -- '072, claim 11;
- 22 '547, claim 5; '624, claim 7 -- and in this one a couple of points. They want
- a construction that says the auxiliary connection has to be separate and
- 24 distinct.

- JUDGE WOODS: Mr. Scherkenbach.
   MR. SCHERKENBACH: Yes.
   JUDGE WOODS: Hi, good morning. If I may please interrupt to ask
   a question.
- 5 MR. SCHERKENBACH: Of course.
- 6 JUDGE WOODS: And focusing on the '624 patent, claim 7.
- 7 MR. SCHERKENBACH: Yes.
- JUDGE WOODS: So, claim 7 of the '624 patent recites a connector for receiving a breathing hose and at least one auxiliary electrical connection plug or socket. So I want to focus first on the plug or socket portion. I understand that you've relied on electrical -- Bahr's electrical contacts 48A and 48B as satisfying the claim's electrical connection plug or socket, and that's on page 49 of the petition. Patent Owner, in its definition of plugs and
- sockets, in its Exhibit 2006, supports its argument that these contacts, Bahr's
- 15 contacts, are neither plugs nor sockets. Patent Owner's interpretation also
- appears to be consistent with the specification, namely, figures 1 through 4,
- that depict electrical connection 54 as either -- and it appears to be either a
- 18 plug or a socket.
- So, having said that, based on Patent Owner's definition of plugs and
- sockets and the specification, would you please explain how Bahr's
- 21 electrical contacts 48A and 48B, which appear to me to be rings within the
- inner surface of that breathing hose, are either plugs or sockets?
- MR. SCHERKENBACH: Sure. Let me say, I'm going to go to slide
- 24 26 where I have the relative figure from Bahr's there, okay, just so we have

1 it in front of us and we can talk about it. But again, I don't think you'll find 2 that the definitions of plug or socket submitted by Patent Owner themselves 3 say anything at all about this separate or distinct issue. You know, whether 4 something is a plug or a socket is a different issue from whether it is a 5 distinct or separate item from another recited connector, okay. 6 But to answer your question, I've given this some thought and what I 7 would say is yes, they are plugs or connectors in the plain meaning of that 8 word because not in the sense of an electrical plug you plug into a wall, but 9 in a very analogous sense where these electrical contacts 48A and 48B, they 10 are raised ring like structures that sit or mounted on the outside of a 11 cylindrical conduit so they're sort of bumps, and I think of them as similar to 12 the prongs of an electrical outlet and then there is a receptacle, similarly 13 there is a receptacle for those ring like bumps in the collar piece. That's the 14 electrical contacts 18A and 18B over there on the collar 20, and so I mean if 15 anyone has ever used a quick fit coupling on a hose really of any kind, it 16 could be a hydraulic hose, could be an electrical connection., it's the same 17 principle. You have half of the plug or socket on a male piece and the other 18 half is on the female piece and you put them together and one snaps or fits 19 into the other just like an electrical socket, simply of a different form. 20 JUDGE DEFRANCO: So your interpretation is you have a raised 21 electrical contact on one piece and a receptacle for that raised electrical 22 contact on another piece that you now plug in a socket in effect? 23 MR. SCHERKENBACH: Yes, yes. I think that's reasonable and 24 what I would say, Judge Woods, your question about figures 1 through 4,

- 1 they're a different form factor of a plug or a socket I concede, but of course
- 2 there's nothing specific to that form factor that's in the claim. You know,
- 3 they happen to have this connector 54, I'm sure we have a slide-on it, but 54
- 4 that's a sort of a cylindrical protrusion that has a connector that goes over
- 5 the top of it.
- Now, you know, that's not like an electrical socket or plug either. It
- 7 involves two pieces to make the connection really just like Bahr does and so
- 8 is it really of patentable weight that Bahr has these electrical contacts 48A
- 9 and 48B, they're ring like bumps, mounted on the counter whether opposed
- 10 to some other form factor, I don't see any basis for that in the specification
- or in the claim language.
- 12 JUDGE WOODS: And just for clarification, so you mean in page 26
- of your demonstrative, and, so, is your understanding that gas port 44 is the
- 14 plug and conduit 2 is the socket?
- MR. SCHERKENBACH: Well in part because the plug would
- include the pair of electrical contacts. The claim language is an auxiliary
- 17 electrical connection plug or socket (indiscernible) but we're talking about
- electrical in this example. So it's the auxiliary electrical connection plug or
- socket, so we're not talking about the gas port per se. That's a separate
- 20 connection. There's two here in Bahr, as there is in F (phonetic). One is for
- 21 the gas, one is for the electrical and so my answer to your question is it isn't
- actually that, in terms of the language of the claim, the plug or socket
- 23 consists of the pair of electrical contacts 48A and 48B and the pair of
- 24 electrical contacts 18A and 18B, so both male and female.

1 JUDGE WOODS: So 48A is the plug and 18A and B are the sockets? 2 MR. SCHERKENBACH: Yes. I think that's the more natural 3 reading, though I actually don't think it matters if you reverse the two. But I 4 think that is the most appropriate way to look at it, yes. 5 JUDGE JUNG: And just to make it clear for me. 6 MR. SCHERKENBACH: Yes. 7 JUDGE JUNG: You're not arguing that your asserted electrical plug 8 or socket, it doesn't share any structure with the gas port 44 or the conduit 2 9 in Bahr? 10 MR. SCHERKENBACH: I'm sorry, could you say that again? I'm 11 not sure I follow your question. 12 JUDGE JUNG: Are you saying gas port 44 is just for the pneumatic 13 connection and that -- contact 48B is for just for the electrical connection? 14 MR. SCHERKENBACH: In this embodiment, one is mounted on the 15 other so we have to be careful about exactly how we describe it. I'm talking 16 about the cylinder 46, there's a cylindrical piece that extends from the 17 ventilator device on the left and that cylindrical piece does double duty, 18 okay. The inside of it is the gas port. The outside of it is a surface on which 19 are mounted the electrical contacts or plugs 48A and 48B. So there's two 20 things that are physically in contact with one another. 21 Now, I would say this gets back to the claim construction dispute 22 separate and distinct. Are those separate and distinct? Our contention is 23 even if their construction were adopted, yes they are. Ours still show 24 separate and distinct connectors. I mean there they are, right. One is

- 1 connecting for the gas, the other is connecting for the electrical. They are
- 2 physically distinct. One is mounted on the other but you certainly can look
- at and say those are distinct structures.
- 4 JUDGE JUNG: Let me follow up then.
- 5 MR. SCHERKENBACH: Okay.
- 6 JUDGE JUNG: If I took away cylinder 46, would I still have the
- 7 electrical connection?
- 8 MR. SCHERKENBACH: Well I'm not quite sure how that would
- 9 work. You'd have to have something at least in this particular embodiment,
- these rings would have to be mounted on something I think in order to
- actually function. But I think the answer to your question is no, you
- wouldn't. I mean conceptually you certainly could imagine taking the gas
- connection away and you're still left with the rings. They still are physical
- electrical connections and there they are but they'd sort of be dangling there
- and not mounted on the conduit which is also the gas port.
- JUDGE DEFRANCO: And just following up on that, if you plug up
- 17 the port you're still left with an electrical connection.
- MR. SCHERKENBACH: Absolutely. These are independent items
- and in Bahr that actually is one of the points of Bahr is to say, you know,
- 20 what's nice about this is that when the user gets the gas connection right,
- 21 they get the electrical connection right also. That's sort of what's slick
- about this design, but they're absolutely distinct things for sure.
- I think that's probably enough on -- well let me just go to slide 24.
- One more point on this and I'll move on to the next issue in the interest of

- time. On this question of separateness or distinctness, there is a I think a 1 2 relevant piece of data from the file history. So on slide 24, this is from the 3 prosecution history of the '547 and the examiner actually made a rejection 4 on the claim that's relevant here, claim 5 where he applied a piece of prior 5 art -- this is Kenyon, this is actually the U.S. patent for Kenyon, not the PCT 6 but same disclosure -- where you have a single physical structure which is 7 namely the gas light outlet 14 and in that same tube, it's a tube, is a hole 23 8 connected to a pressure transducer 20, and so the examiner said hey, that 9 reads on the auxiliary -- in this case it would be the pneumatic connector 10 instead of electrical connector -- that hole is an auxiliary pneumatic plug or 11 socket and so that was the examiner thought the broadest reasonable 12 interpretation of the language was and there was no dispute by Fisher & 13 Paykel at that point that that was a reasonable reading of the language. So, 14 again, in isolation it may not be sort of game over, but it's a relevant data 15 point I think that supports Petitioners on this issue. 16 Okay. We've already talked about Bahr. A couple of other points on 17 Bahr to address some of the Patent Owner's responses if I may. Slide 27. 18 One argument that Patent Owner makes is well Bahr wouldn't work in a
- JUDGE DEFRANCO: What is exactly Bahr anyway? What is it used for?

happen, and two things on that. Number one --

CPAP setting because you've got humidity and water and bad things would

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MR. SCHERKENBACH: It's used in what's called a fluid transfer system which can be a ventilator. Actually if you look at the upper left

- quote here on slide 27 it actually says it can be used both to transfer gas for something like a ventilator but also liquid. So it uses the broad term fluid transfer device to refer both to gas and to liquid, like blood --
- 4 JUDGE WOODS: Mr. Scherkenbach.
- 5 MR. SCHERKENBACH: Yes.
- 6 JUDGE WOODS: If I could interrupt again.
- 7 MR. SCHERKENBACH: Sure.
- JUDGE WOODS: I have another question. With all due respect, I'm not convinced that Bahr's brief mention of fluid transfer devices in paragraph 4, the description of the prior art, that includes a dialysis machine
- which transfers blood to and from a patient, which I believe is what you've
- 12 highlighted on slide 27, supports a finding that Bahr explicitly describes that
- its device is to be used with highly humidified or moist fluids. Is there
- another disclosure or something that I'm missing?
- MR. SCHERKENBACH: Explicitly describes. I mean there isn't
- anything else explicit in Bahr that shows an explicit embodiment used with
- 17 fluids. But it does say that the invention encompasses liquid. It shows the
- 18 embodiment we've been discussing as an example where you have a gas, but
- of course in a CPAP it's gas, it's not a fluid either, and so I find Patent
- 20 Owner's arguments on this a little bit ironic because they're not a liquid
- 21 system and so it would be one thing if they said hey, we're a liquid system.
- The example in Bahr you're relying on is not a liquid example and so why
- are we even talking about it. The example figure in Bahr that has this very
- connection we've been discussing is a gas based system. Patent Owner's

- 1 invention is a gas based system and so I can't see why the transference is not
- 2 fairly direct in that sense and the other thing I would say is that there isn't
- any language in Bahr suggesting there's any problem with, you know,
- 4 you've got a moist gas in that situation. It's a ventilator. People are
- 5 breathing that gas.
- 6 JUDGE DEFRANCO: Mr. Scherkenbach.
- 7 MR. SCHERKENBACH: Yes.
- 8 JUDGE DEFRANCO: What does your expert say about Bahr?
- 9 MR. SCHERKENBACH: Well he says -- it's here on slide 27. He
- says the device is designed to be used with highly humidified moist fluids
- like blood. It refers to being gas tight which, if it's gas tight, you know, Mr.
- 12 Virr doesn't see how water getting these contacts can be an issue because if
- gas can't escape, how can liquid or water escape if it were present, and he
- says a person of skill in the art would have understood that Bahr
- 15 contemplates use in a humidified environment and that such a gas tight
- 16 connection would be water tight and thus capable of preventing the mating
- 17 surfaces from being exposed to water.
- JUDGE DEFRANCO: Okay. What does Patent Owner's expert say
- in response to your expert on this point?
- MR. SCHERKENBACH: Well this is actually the second Virr
- 21 declaration, so this is actually Mr. Virr responding to Dr. Schneider on this,
- but I can get that for you in one minute. So in Dr. Schneider's declaration
- 23 his relevant analysis, if you want to go look at it later it's Fisher & Paykel
- Exhibit 2004, paragraphs 96 through 105, and essentially what he says is a

- 1 person of skill in the art would not have combined Bahr with a humidifier
- 2 CPAP apparatus because of the risk that the moisture from the humidifier
- 3 would interfere with the electrical contacts shown in Bahr.
- 4 So it goes to motivation to combine as opposed to what the actual
- 5 teaching of Bahr is, and Dr. Schneider focuses on that and says look, even if
- 6 Bahr has an auxiliary electrical connection plug or port, you still wouldn't
- 7 use because of these concerns about moisture and then Mr. Virr comes back
- 8 and says that's actually not correct. There's this other language in Bahr that
- 9 talks about liquids which, by the way, Dr. Schneider doesn't address that
- 10 language --
- JUDGE DEFRANCO: Before you go there. You're telling me that
- 12 Mr. Schneider says that Bahr is used for humidified gases then?
- MR. SCHERKENBACH: No, no. I'm sorry. If I said that I
- misspoke, no. He's saying a person of skill in the art would not combine
- 15 Bahr with the references we suggested would be combined with because the
- presence of humidified gases in the CPAP context would cause problems
- 17 with Bahr's connector. That is his argument. Okay. So I want to be clear
- about what their position is.
- 19 JUDGE DEFRANCO: Right.
- MR. SCHERKENBACH: And then Mr. Virr comes back and says
- 21 well, that's not right for the reasons we're looking at on slide 27 and the last
- comment I was going to make is I don't believe you'll find Dr. Schneider
- addressed the language in Bahr about liquids and I don't think Dr. Schneider
- 24 addressed the language in Bahr about gas type connection.

1 JUDGE WOODS: Mr. Scherkenbach. 2 MR. SCHERKENBACH: Yes. 3 JUDGE WOODS: Just one more question. And so looking at slide 4 27, I understand that your expert testified that Bahr explicitly describes its 5 device as designed to be used with highly humidified moist fluids like blood, and I understand the reliance is on paragraph 4, "Description of the Prior 6 7 Art," and I'm also a little confused with respect to the reliance on this gas 8 type connection because, in all honesty, I read that disclosure, and you 9 provided it conveniently on slide 27, that provides the female interface 8 is 10 push fit over the port 44 to thereby form a gas tight connection. So when I 11 read that, I understand it's gas tight with respect to the outside and the inside 12 of the breathing tube, but that's not to say that the electrical contacts 13 themselves would be somehow insulated from any water, liquid or moisture 14 that may be present within the breathing tube. So to me there's a disconnect 15 between those two. Can you explain my confusion. 16 MR. SCHERKENBACH: Again, I think we're talking about, you and 17 I, about two different things. If you could have a gas tight connection -- let's 18 focus on Bahr and then I want to come back to the patents at issue here. If 19 you have a gas tight connection, there isn't any way then for any humidity or 20 moisture or whatever is traveling in that tube to escape and create an issue 21 for the electrical connections which are mounted on the outside of that tube, and so that's the relevance of the gas tight connection language. That's what 22 23 Mr. Virr is saying. He's saying look, if it's gas tight you don't have a

- 1 concern about any kind of moisture escaping and following the contacts,
- 2 even in this scenario.
- 3 JUDGE WOODS: But if you're referring to figure 3 of Bahr, those
- 4 electrical contacts are on the inside of the tube.
- 5 MR. SCHERKENBACH: No, no. Actually they aren't. Okay, I see
- 6 now where the disconnect is. No, they're not. The electrical contacts are on
- 7 the outside of tube 46, okay.
- 8 JUDGE WOODS: No, I refer to the conduit structure 8, female
- 9 interface 8. The inside of that interface has the electrical contacts 18A and
- 10 18B which would presumably be exposed to humidity or liquid.
- MR. SCHERKENBACH: No, actually not. Because let me try to
- 12 find the exact language in Bahr, because that collar slides over the outside of
- 13 the conduit and inside the collar is the -- I think it's in -- is a sealing
- mechanism that seals to the conduit and so no, absolutely not. 18A and 18B
- are not exposed to moisture. They wouldn't work if they were. There is
- language here. Give me one second, please. I'm looking at paragraph 22,
- 17 I'm not seeing the exact -- I'm going to ask my colleague to find it, but there
- is a reference to a seal component that -- paragraph 19. Hold on one
- 19 moment, please. Yes, here we go. So in Bahr, if you have it. This is a
- 20 ResMed Exhibit 1011, it's page 5 of the exhibit. It is the bracketed
- 21 paragraph 19 at the very bottom of page 1. It says,
- 22 "The female interface 8 can be formed of a flexible rubber material to
- form a gas seal when push fit with a cooperating male interface of another
- 24 conduit. In this manner an electrical single transmission path is provided

- along the length of the tubing between corresponding pairs of externally
- 2 accessible contacts 12A, 18A and 12B, 18B."
- JUDGE WOODS: And, so, I guess I'm still a little confused. I
- 4 understand that there's a gas tight connection that could be formed, but we
- 5 don't know, and Bahr doesn't really describe, where exactly that gas tight
- 6 connection occurs. That is, whether in connect forming a gas tight
- 7 connection, the electrical contacts are outside or inside the breathing tube, if
- 8 that's clear.
- 9 MR. SCHERKENBACH: Well what we have is -- I think we know
- enough to know that it's outside the tube. I think what you're saying is, is
- there enough disclosure or specificity in the drawing or the text to say
- 12 exactly how the tube connection is accomplished inside that collar, because
- again there isn't any question that the collar portion with the contacts 18A
- and 18B is sliding over the tube 46 or 44, and over the contacts 48A and
- 15 48B. So we know they are outside the gas tube. Clearly they're on the
- outside of the gas tube. What we don't know is the specifics of how the seal
- is accomplished for the tube itself. Is that --
- JUDGE WOODS: Yeah, I think that's correct. That's how I
- 19 understand it as well.
- MR. SCHERKENBACH: All right. Fair enough.
- JUDGE WOODS: Thank you.
- MR. SCHERKENBACH: All right. So let me go back, I think in the
- 23 interest of time here I am going to move on to the '197 actually, given how
- 24 much time I have left unless there is other specific questions the panel

- 1 members have. Okay. So let me move on to the '197. Our slides begin at
- 2 slide 42 and again let me just frame. The issue here is what the invention
- 3 allegedly is here, and it's the addition of this horizontal inner tube 7, right.
- 4 That is the improvement on what was otherwise known in the prior art, it
- 5 was known to have an inlet port on the side of a humidifier chamber. The
- 6 HC200 shows that, Netzer shows that. There's no question that was in the
- 7 prior art, and so the idea here is to add a tube to deal with a spill back
- 8 problem.
- 9 Primarily, I know there's a reference also to it having some noise
- abatement sort of characteristics as well, but we'll focus on spill back. One
- preliminary observation I want to make, and I might come back to this, the
- claims of the '197 that are at issue, claim 1 in particular, doesn't actually say
- anything about how long the tube has to be. So we have increasing levels of
- specificity as to the length of the tube and I think that's actually important.
- 15 Claim 1 simply says you have an elongate flow tube with no further
- qualification as to what that means or how long it has to be. Then you have
- 17 claim 2 that says a quarter of the diameter of the chamber. Then you have
- 18 claim 3 which says approximately the middle.
- So it got lost a little in the shuffle maybe that there's so much focus
- 20 on this approximately the middle requirement that the broad claim here
- 21 doesn't say anything like that. It's actually quite broad in terms of how long
- the tube can be.
- All right, so I want to focus largely on two things. One is the
- 24 motivation to add a tube to the HC200 and then secondarily, Hebblewhite.

There's a lot of disagreement about the teachings of Hebblewhite, so let me 1 2 cover that in the time I have remaining here. 3 First of all, my slide 46. It is I think clear from the HC200 and the 4 manual teachings that spill back was an issue. There's explicit caution in the manuals avoid moving or tilting the HC200 when the chamber is full of 5 6 water. That's from the ResMed 1015, the Rev. A version of the manual, the 7 Rev. B version of the manual says in the unlikely event you tip the water 8 into the blower outlet here's what you should do. So clearly it was 9 acknowledged that tipping was a concern, spill back was a concern, and we 10 think this is a place where Patent Owner maybe makes a mistake. They say 11 neither the HC200 manual nor Hebblewhite teach or suggest the problem 12 identified in the '197 patent of water spilling through a chamber inlet when 13 the chamber is tipped. 14 Fairly interpreted, we think that the HC200 does and, in fact, Mr. Virr 15 looked at that disclosure here on slide 47. I won't read it into the record. 16 This is from his second declaration ResMed 1026 at paragraph 12. He said 17 that an artisan would understand that disclosure to encompass flow back 18 through the inlet as well as the outlet. The risk is for both. When you tip 19 these things the water can go out of both the inlet and the outlet. One goes 20 into the blower and creates problems with your motor and electrical 21 problems. The other goes in the tube to the patient and can create 22 discomfort or worse for the patient getting a bunch of water in their throat. 23 So they're both bad and so there was a motivation, the problem was 24 recognized, and Dr. Schneider also recognized that there was a problem with

- 1 -- slide 48 -- recognized in the art with CPAP's being tipped. Patients can
- 2 knock these things off their nightstand and so that's sort of ubiquitous in the
- 3 art. So now let me go to Hebblewhite, slide 50.
- 4 JUDGE DEFRANCO: Mr. Scherkenbach.
- 5 MR. SCHERKENBACH: Yes.
- 6 JUDGE DEFRANCO: Did Patent Owner's expert dispute your
- 7 expert's testimony about spillage problems in both the outlet and the inlet?
- 8 MR. SCHERKENBACH: No, not to my knowledge. Okay.
- 9 Hebblewhite. So Hebblewhite clearly has a horizontal tube that is designed
- to prevent spill back and there really isn't any dispute about that and
- Hebblewhite explicitly talks about the danger of spill back and why you
- don't want to have it and why it's a bad thing, and so in our view the
- 13 fundamental teaching of Hebblewhite is use a horizontal tube in a CPAP
- 14 humidifier to combat the problem of spill back and Patent Owner comes
- back and they sort of nip at the edges on this and say well the tube isn't very
- long, it's on the outlet, it's not on the inlet and so forth and I'll address
- those, and we addressed them in the papers.
- But the fundamental teaching here is undisputed that what the '197
- 19 patent when they thought their core invention was using a horizontal tube on
- an inlet, or I should say in that particular case an inlet of a humidifier, we've
- 21 got a horizontal tube in Hebblewhite on the outlet of the humidifier for
- 22 exactly the same reason, preventing spill back. And so the question is,
- 23 would it have been obvious to take this teaching of Hebblewhite and apply it
- 24 to an inlet?

1 A couple of observations I want to make here quickly. You see this 2 language in Hebblewhite at the bottom of slide 50. The aperture 50 should 3 preferably be spaced at least two centimeters away from the end wall, at 4 least and I wanted to highlight that because it struck me in going through the 5 papers that neither the Patent Owner in its arguments, nor Dr. Schneider 6 their expert, ever deals with that language. They go on and on about 7 Hebblewhite's tube is too short and you couldn't make it longer and it 8 wouldn't work in the context of the '197 patent but it says at least two 9 centimeters, teaching it should actually be longer. Make it two centimeters 10 or longer. It's particularly relevant of course to claim 1 of the '197 where 11 there's no length requirement at all in the claim. 12 Okay. Let me go on to -- actually, hold on one second here. Since 13 we're talking about tube length, let's go to approximately the middle 14 relatively quickly and this is slide 53, and as I said I previewed claim 3 of 15 the '197 does say something about tube length and that is the purpose for 16 which the Petitioner has relied on this Gouget reference. I put on a slide 17 what are the three pieces of the prima facie obviousness case. The HC200 is 18 the primary reference, shows everything except the horizontal tube. 19 Hebblewhite shows the horizontal tube to prevent spill back. Gouget we 20 rely on only for tube length, and I wanted to highlight that because a lot of 21 the argument from Patent Owner seemed to be directed at why Gouget 22 doesn't have other elements of the claims, and we engaged them on that but 23 at the end of the day I don't think it matters that much because that's not the

fundamental reason for which we're relying on Gouget. It's really just the 1 2 length issue. 3 Okay. And indeed that's what Mr. Virr says and again, I'm not going 4 to read this in the record, I just wanted to have the Board have at slide 54 5 some of Mr. Virr's testimony on how would a person of skill in the art 6 approach this problem of how long to make the tube and he says a couple of 7 things here. First of all, it's just a design choice how long to make the tube. 8 I mean really in a way the '197 claims the invention. You can see that 9 because the independent claim doesn't place any restriction on tube length. 10 Then they have a claim that says I'll go a quarter of the way. Then they 11 have a claim that says I'll go half way, and all those might be good choices 12 depending on other aspects of the design and you can't say one is better than 13 the other depending on whatever else is going on in your design, and so it is 14 a design choice. The structure of the claims reflects that. Mr. Virr says it 15 was known in the art that it was a design choice, and he then goes on to say 16 well, if you look at the HC200 in that design, which is our primary 17 reference, he says a person of skill in the art would have been motivated to 18 use a tube that would go approximately to the middle because you've got a 19 cylindrical container, because you've got an example from Gouget where 20 that tube it's angled, yes, but it is ending up at approximately the middle of 21 the container in Gouget and you would, you know, given in the HC200 you 22 already have the inlet port up toward the top of the chamber. You wouldn't 23 move it. You wouldn't need to move it and to add a horizontal extension

- 1 tube, you would just leave it at that height and put it to approximately the 2 middle. 3 One last comment on Gouget and then I'm going to move on. It goes 4 to this analogous art issue. Lots of argument about that. Obviously, and 5 there's a potential legal issue here I wanted to touch on although I think at 6 the end of the day that's not really germane because both sides agree that if 7 the reference being relied on is reasonably pertinent to a problem the 8 inventor was facing that it qualifies as analogous art, and so where the 9 dispute really is here is defining what the problem was when you talk about 10 tube length, and Patent Owner wants to define the problem very narrowly 11 and say well, it's not just figuring out an optimal tube length for preventing spill back, it's doing that specifically in the context of a CPAP humidifier 12 13 which is a very, very narrow description of the problem and obviously it's 14 for you gentlemen to decide whether you agree with it or not. 15 We think that fairly described the problem is much more generic. It's 16 like look, I've got a container of liquid. I'm going to put a horizontal tube in 17 it, that's not what we're relying on Gouget for. We already have the 18 Hebblewhite for that, we're going to put a horizontal tube in there. How 19 long should it be? Well, is it reasonable for me as a designer to look at other 20 containers of other liquids to see what people have done regarding tube 21 length and we think it is. I mean this is a broad test, it's sort of a holistic 22 test, is it relevant to look there? One other observation --23 JUDGE DEFRANCO: Mr. Scherkenbach.
- MR. SCHERKENBACH: Yes.

1 JUDGE DEFRANCO: Wouldn't a person of ordinary skill in the art 2 just go to other humidifiers? You know, not necessarily CPAP machines 3 but just other water chambers for humidifying as opposed to bed pans? 4 Don't you think that's kind of pressing it a little bit? 5 MR. SCHERKENBACH: They might go there first. I mean I'm sure 6 this would be a sort of layered approach. Are they going to think 7 immediately, gee, I'm going to go look at urinal pads (phonetic)? No. 8 Okay, right. But would they only look at CPAP related art? That's what 9 really Patent Owner is saying and we're saying, you know, not really and 10 exactly in that connection I wanted to point out in Gouget, let me find it 11 here. It's interesting, not to get too technical, I mean urine is water, it's basically water with some other things in it and so if you were to do a search 12 13 for water tight or spill back of water containing containers, Gouget actually 14 uses the phrase water tight three times. So even if you're just doing a word 15 search, you know, I'm a designer and I want to go find some analogous art 16 that's out there, you probably would have found Gouget and maybe others. I 17 mean I haven't done this search myself, but it's not as though this is a 18 completely out of left field sort of approach. JUDGE JUNG: All right. You're now into your rebuttal time, if you 19 20 wish to continue. 21 MR. SCHERKENBACH: Let me just look quickly at what I have left 22 and the answer is going to be probably not, but actually I think I can, again, 23 presuming there are no other questions at this point, I think I'll sit down and 24 save the rest of my time for rebuttal. Thank you,

1 MR. JENNINGS: Your Honors, while we're dealing with the 2 electronics I have hard copies of our slides if the Board members are 3 interested. Good morning. As I mentioned, I'm going to address first the 4 '197 patent that Petitioner has concluded with and my colleague will address 5 the other patents. 6 So with respect to the '197 patent, if we could jump to slide 6 here 7 and move things along, there are two basic issues I'd like to address. First is 8 the basic combination of Hebblewhite with either the HC200 or Netzer and 9 that affects claim 1 and then because the other claims depend all the claims 10 in this case, and in that regard I want to address Hebblewhite and its specific 11 teaching that Petitioners are generalizing here and the term they're using 12 now is spill back and we'll get into Hebblewhite. Hebblewhite is not 13 interested in spill back that they sort of genericized that to. 14 And then the second issue I want to address is the issue that focuses 15 on claims 2 and 3 which call out a specific length for the elongate tube that 16 extends from the gases inlet, and in that regard most principally, their 17 reliance upon Gouget which is not analogous art and because it's not 18 analogous, it leads to a whole host of problems in the purported combination 19 they need to come up with. So first, let's talk about Hebblewhite. Hebblewhite applies across the 20 21 board to each grounds that are challenged in the '197 patent, and if we go to 22 the next slide. So Hebblewhite shows a tube at the outlet of this low profile 23 humidifier and the tube is intended to address spilling caused by waves, 24 because the air is blown at an inlet and creates waves and Hebblewhite

explains by extending this at least two centimeters he can impact whether 1 2 those waves get into the outlet of this low profile humidifier. So not spilling 3 back, but it's spilling into the outlet in Hebblewhite, and this is an example 4 of in their petition they were sort of genericizing and they're doing so today 5 what Hebblewhite really teaches. It's directed to impacting whether the 6 waves are getting into an outlet in this low profile humidifier. 7 And if we turn here just a few points to make. Hebblewhite's not 8 concerned with tipping. After all, he has just one tube on that outlet. If you 9 were tipping that device, first of all it has marginal impact that small tube 10 that he shows for any sort of tipping, but there's nothing on the other 11 opening and so what Hebblewhite discloses has no impact on tipping. JUDGE DEFRANCO: Mr. Jennings, how do we know Hebblewhite's 12 13 tubing is a short tube? 14 MR. JENNINGS: Well because he teaches that in such humidifiers, 15 you want to maximize the surface area that's going to be exposed to the air 16 that's being blown through the system, and so he illustrates a relatively short 17 tube. Of course, we're all taught we don't draw specific conclusions from 18 drawings, but given the drawing, given the teaching that we're going to 19 maximize the surface area in this humidifier and the fact that it's at least two 20 centimeters, one I think reasonably concludes from that is that you're going 21 to make that tube only so long as necessary to impact the waves that may 22 splash at the outlet.

1 JUDGE DEFRANCO: But isn't Hebblewhite maximizing the surface 2 area by means of having this large flat chamber as opposed to through 3 (phonetic) the tube? MR. JENNINGS: Well, I mean it's both. If you can imagine – if we 4 5 go back to Hebblewhite, if you extend that tube all the way across the 6 device, your air that you're blowing through is exiting before it's even 7 crossed the surface of a substantial amount of the water that's in the humidifier. 8 9 JUDGE DEFRANCO: I'm still not sure how it affects the surface 10 area of the water because doesn't the tube extend into the chamber and sit 11 above the water. So even the water surface underneath the tube is still 12 exposed, isn't it? 13 MR. JENNINGS: It's exposed, but you would have dead space under 14 that tube. You can imagine the air is blowing along the surface, picking up 15 water vapor as it goes along and then if that green tube is, and this is in our 16 slide 7 for Judge Woods, if that tube was extended to the other side of the 17 device, the air that's been blown through those passageways exits to that 18 tube and has it passed over the surface of a substantial amount of the water 19 surface that the passageways provide. 20 JUDGE DEFRANCO: I guess I'm wondering if it, because of this 21 blowing or air flow current, that it's going to hit the ends of that chamber 22 where the outlet is and just flow back and then just continue to circulate 23 within that last chamber? 24 MR. JENNINGS: No one on this record has suggested that.

1 JUDGE DEFRANCO: Okay. So petitioner's expert doesn't? 2 MR. JENNINGS: They haven't suggested that. If you extended that 3 lengthy, the air would blow back and come around and then go through that 4 tube. 5 JUDGE DEFRANCO: Thank you, okay. 6 MR. JENNINGS: And so we have Hebblewhite saying maximize the 7 surface area and he does say the tube is at least two centimeters. He's 8 talking about addressing waves, not tipping, and that appears to be a 9 relatively short tube then. And one quick point on claim 1. Claim 1 does 10 call for elongate and it doesn't call for a specific dimension, and I think the 11 point that we're making on claim 1 with respect to length of tube goes to the motivation. Would one -- and we'll get into this HC200 and Netzer -- would 12 13 one add a tube to those devices that would be sufficient to actually impact 14 spilling, that's the problem that they're proposing, and the thing is if you add 15 a tube that would be sufficient to prevent spilling you're negatively 16 impacting humidification and therefore you wouldn't. Not that there's a 17 specific length that's called for in claim 1. The specific lengths are called 18 for in claims 2 and 3 and there they rely upon Gouget for their obviousness 19 case. So just to highlight here --20 JUDGE DEFRANCO: Is either party asking us to construe the term 21 elongate? 22 MR. JENNINGS: No. Like I said, I think it just impacts the 23 motivation and if you look at the secondary references, the humidifiers that 24 they're attempting to combine the Hebblewhite tube with, they take the

- Hebblewhite tube at the outlet and they're combining it with HC200 or Netzer, and the question is well if you're motivated to prevent spillage, well how long would you make that tube in those references and, as our experts
- explain, you would negatively impact the humidification and therefore you wouldn't add a tube to impact the potential of spilling in those secondary
- 6 references. So here just illustrating waves are what is addressed in
- 7 Hebblewhite, not tipping. Any slight adjustment of the orientation of that
- 8 chamber leads to water spilling out there.
- 9 Okay, so they proposed to combine Hebblewhite with either the 10 HC200 or Netzer in this case which are different types of humidifiers. The 11 HC200 is a taller humidifier and the water level is spaced from both the outlet and the inlet, and they're not suggesting that there's waves in that 12 13 device. They're suggesting that they're adding a tube to affect the tipping 14 and the HC200 already has the water level space, as we can see in our slide 15 13. The tubes are already spaced well above the water level, and the inlet is 16 already offset to a small degree from the outer perimeter of that high profile 17 humidifier which would have some impact on the angle to which that device 18 could be tilted before the water flows out. So it's already a feature. There is 19 a small lead in, if you will, as our expert explained which provides some 20 degree of angle rotation beyond what a simple opening in the outer 21 perimeter would be, and to make that even a longer tube that's going to 22 prevent spilling, now that as we'll discuss with respect to claims 2 and 3 23 more particularly, would lead to decreased humidification and a host of 24 other problems.

1 Now Petitioners refer to the manual and the manual does refer to the 2 possibility of water getting into that outlet, but it refers to it as an unlikely 3 event and has a simple explanation for what to do in that eventuality. So 4 from this you can conclude that the workers on the HC200 balanced 5 humidification with the degree to which they wanted to be able to reorient 6 the device at what angle is it going to spill out, and they noted that it's 7 unlikely and they provide the procedures for a user to follow if that occurs. 8 Now Netzer is the other secondary reference and Netzer is a slide-on 9 humidification chamber that has a number of features that one of skill in the 10 art would not be motivated to add tubes to prevent water from exiting the 11 inlet or the outlet, and in fact, Netzer has no discussion of waves or tipping. 12 The inlets are spaced above the water level and Netzer has -- if we turn to 13 our next slide, 18 -- Netzer has a specific discussion of an overflow element 14 and what's particularly important here is this last sentence here on our slide 15 18. 16 "By this means it is insured that the respiratory gas supply through the gas humidifier is only combined with water vapor, and no water drops are 17 18 carried over into the respiratory gas lines." So Netzer has already accounted for any concern, if there were, of 19 20 water exiting the device there. 21 So now I'd like to turn to claims 2 and 3. Claims 2 and 3 call for the elongate tube that extends from a gases inlet having a specific line. It either 22 23 extends at least a quarter or at least half way into the chamber and I think it's 24 important to note that the elongate tube extends from a gases inlet because

- we're going to talk about this safety urinal that they rely upon. A safety 1 2 urinal, the urine goes into the tube and it stays in the chamber. That's the 3 point of this urinal, is to have this relatively noxious fluid going into a 4 chamber and staying in there. 5 And we have a, I think, a dispute although it sounded like Petitioners 6 may be backing off on the analogous art issue. Their slide 55 -- can we call 7 up their slide 55 -- while we're trying to do that, in their slide 55 they point 8 to their reply brief and in fact they first point to our statement in our Patent 9 Owner response, 10 "Petitioners also fail to show that Gouget is reasonably pertinent to 11 the problems being solved by the 197 patent, and they call that inherent 12 (phonetic)." 13 And then they have four citations to their reply brief which seems to 14 be almost an acknowledgement that they hadn't addressed that, and in 15 particular on this bottom left hand citation to the reply brief I would like to 16 address that. They make several errors in their reply brief. 17 First they say FPH cited pre-KSR cases. That's not correct. Yes, we 18 cited some pre-KSR cases, but we also cited post-KSR cases, in particular, 19 In re Klein, which cites the standard of In re Bigio, which was pre-KSR and 20 the standard that the Federal Circuit has applied for analogous art has not 21 changed in view of KSR. It's still the two part test in the field of endeavor
- or invention and that's In re Klein, Federal Circuit 2011.

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for reasonably pertinent to the particular problem addressed by the inventor

1 Petitioners then say the test was broad in post-KSR and they cite Ex 2 Parte Leimkuhler, a non-precedential Board decision in which that statement 3 was made, but it was dicta. The Board in that case suggested that KSR, 4 which I'll address in a moment, brought in the test for analogous art but then 5 went on and said even if the applicant was not narrow (phonetic), it's in the 6 field of endeavor and it's reasonably pertinent to the particular problem. But 7 consistent with the fact that the Federal Circuit is still applying the same 8 analogous art standard post-KSR, KSR did not change the standard for 9 analogous art. KSR reaffirmed the Supreme Court's four part test in 10 Graham. Analogous art goes to the second factual element of the Graham 11 analysis, the scope and content of the prior art. That was not changed by the 12 Supreme Court in KSR. After all, in KSR the references were not debated to 13 be in the same field of endeavor, electronic pedals. They were in the same 14 field of endeavor. The question in KSR was in what context can we combine the references? So the Supreme Court was addressing the teaching 15 16 suggestion motivation to combine references that were already admittedly in 17 the same field of endeavor. Not the issue that we have here. 18 Okay. So let's turn to this issue of -- oh, we're on their slides. Let's 19 go to our slides. So I think we can all agree, I think we have an agreement, 20 that Gouget is not in the same field of endeavor. It's a safety urinal and 21 we're talking about a humidifier. Talking about gases going into a chamber 22 that's filled with water, getting water vapor and exiting at a higher 23 humidification. Urinal, urine, relatively noxious fluid, going in and staying 24 in there and in fact, in the --

1 JUDGE DEFRANCO: Mr. Jennings, what is the meaning of the 2 safety aspect of the urinal there? 3 MR. JENNINGS: After the urine goes in it doesn't come out. If you 4 haven't --JUDGE DEFRANCO: Doesn't spill out. 5 6 MR. JENNINGS: -- filled it past its max fill line, because it's got the 7 tapered tube, and important the tapered tube goes to the volumetric center 8 point. They try to dismiss that well, we're just looking for the length but 9 what the teaching of Gouget is we're having a tapered tube that's going to 10 the volumetric center point and in fact in this citation we have on our slide 11 23 from Gouget's field of the invention, Gouget is talking about preventing the release of odors. So actually preventing gases from coming out. It's got 12 13 a very narrow opening in the tapered tube or anti-backflow element that's at 14 the volumetric center point of the device. 15 JUDGE DEFRANCO: So is Gouget only concerned with the release 16 of gases as opposed to the release of the fluid, the accidental release? 17 MR. JENNINGS: He's concerned with both. 18 JUDGE DEFRANCO: Okay. 19 MR. JENNINGS: He's concerned with both. Primarily the fluid. 20 It's a safety urinal, the urine's not coming out. But the tapered tube is also, 21 as we point out, prevents the release of -- well it says it prevents the release 22 of odors unless you open the cap and you empty it out. So --23 JUDGE DEFRANCO: What is No. 5 anyway? I mean getting down

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to it isn't it really just a baffle?

- 1 MR. JENNINGS: Is No. 5 a baffle?
- 2 JUDGE DEFRANCO: It's for preventing the release of a liquid,
- 3 correct?
- 4 MR. JENNINGS: Yes. I think a baffle is something that directs a
- 5 flow. I wouldn't think of a tapered tube to permit the urine to come into this
- 6 safety urinal as a baffle, but as a controlled entry point.
- 7 JUDGE DEFRANCO: I thought a baffle was something that
- 8 prevented some sort of flow, or directed the flow elsewhere.
- 9 MR. JENNINGS: Yes, directed.
- JUDGE DEFRANCO: So prevent it from flowing somewhere else, it
- directs it in a different direction?
- MR. JENNINGS: I mean, in a very general term, yes.
- JUDGE DEFRANCO: I'm trying to get at what is the level of skill in
- 14 the art here? What is the field of endeavor? You know, we're really talking
- about fluid flow, fluid mechanics, baffles?
- MR. JENNINGS: The field of endeavor is humidification. It's a
- water chamber where gases are going to be inlet and be humidified. That's
- 18 the field of endeavor, and also --
- 19 JUDGE DEFRANCO: So it is a water chamber?
- MR. JENNINGS: It's a water chamber that provides a essentially a
- 21 mass transfer operation, a transfer of water to a vapor. The ultimate function
- is to provide water that can be transferred from the liquid state into the vapor
- so that the air can have a greater humidity upon exit of that water chamber.

1 JUDGE DEFRANCO: So would that level -- that skilled person in 2 the art, would they have knowledge of how to accomplish fluid flow within 3 that chamber, or controlling fluid flow within that chamber? 4 MR. JENNINGS: Would they have knowledge, yes, consistent with 5 Hebblewhite, for example. Hebblewhite is teaching extending the 6 passageway to maximize the transfer of water from the liquid state into the 7 air. Netzer has a large container that is open to the air going into and out. 8 JUDGE DEFRANCO: Do you agree with Petitioner's definition of 9 level of skill in the art as somebody who is a mechanical engineer or 10 biomedical engineer with five years of experience, so to speak? MR. JENNINGS: Our's is more focused. I think their's is more 11 12 generic as to medical device, but our expert has said it's relatively the same 13 level of skill in the art and as to which definition you choose, we don't think 14 it affects the analysis. 15 JUDGE DEFRANCO: Okay. 16 MR. JENNINGS: But in either case, a safety urinal is not in the field. 17 Gouget is not interested in passing the liquid to the air to provide an increase 18 in humidification, or if it was urine, it would -- haven't heard urinification --19 of the air. It's not a term that we use, and in particular I'd like to jump 20 ahead in the interest of time to this slide here, and so this is Petitioners 21 propose adding what's shown -- and this is our slide 28 -- this lengthy tube 22 to the center of the HC200 shown in dotted lines, and what that leads to is 23 basically a short circuit of the inlet going to the outlet and this is in part 24 because they're taking a teaching from a non-analogous reference, Gouget,

and trying to apply it albeit only parts of it to a humidifier, and so even they
acknowledge this is problematic.

And so then they go to a secondary reference, Rose, and say okay, we realize what we came up with based upon the non-analogous teaching is not going to be workable for a humidifier so let's add a baffle, and they go to Rose and they say well Rose has a baffle that directs flow, and then they add a baffle and remarkably they come up with a drawing that is almost identical to the invention of the patent they're challenging which I think highlights the hindsight here and there's a very big difference between the baffle that they go to in Rose. The baffle in Rose is causing the fluid to provide a serpentine path, either in a U-shape or it says you could provide the inlets and the outlets on opposite sides and use two baffles to make it S-shape.

So you're providing the serpentine path across the surface of the water. That's not the kind of baffle that they add to the HC200. They provide a baffle that's directly in front of the inlet into the humidification chamber. There's nothing in the art to suggest that. It's just a problem they created by using non-analogous art and they had to solve it to make up for their obviousness combination so they went to Rose, but Rose doesn't teach that. So there's no reason, and so I'd like to just wrap up the '197 patent real quickly and in particular focus on claims 2 and 3, and just think about the number of steps that we get toget to their obviousness case.

First they start with Hebblewhite. Hebblewhite's talking about waves and it's talking about a tube at the outlet. They switch the tube to the inlet and they apply it to a tipping issue and then that tube, there's no teaching in

- 1 Hebblewhite to have a lengthy tube, in particular a tube that goes to the
- 2 center as claim 3, and so from there they go to a safety urinal and the safety
- 3 urinal has a tapered tube to the volumetric center point. But they don't
- 4 actually take the teaching. They provide a wide tube that goes directly to a
- 5 center point. In the guise of their expert, Mr. Virr, says well, I interpret
- 6 volumetric center point to mean it goes to the center of a symmetrical
- 7 device. That's not what Gouget teaches, and so they don't do tapered, they
- 8 don't go to the volumetric center point, and then after taking that teaching
- 9 they come up with a design that's not going to be a good humidifier so then
- they have to go to Rose and they have to look for a baffle, and then they
- don't really apply the baffle that they find in Rose, they apply a completely
- 12 different baffle that's not in the prior art.
- Given the huge number of steps and the lack of connection between
- 14 them, I think that evidence is the fact that hindsight was used here,
- particularly with respect to claims 2 and 3 of the '197 patent. And unless the
- Board has any further questions, I'm going to turn to my colleague to
- 17 address the other patents.
- 18 JUDGE JUNG: I have no questions.
- 19 JUDGE DEFRANCO: Are you giving up on claim 1?
- MR. JENNINGS: No, sir. No, sir, I believe Hebblewhite's teaching
- 21 is to address waves at the outlet and they've changed it to a tipping issue.
- Hebblewhite's not suggesting that his improvement that he provides with
- respect to that elongate tube is going to provide any impact on tipping.

1 JUDGE DEFRANCO: Well, it is. You do admit that the tube in 2 Hebblewhite is preventing splashing into an opening, correct? 3 MR. JENNINGS: Splashing into an opening, correct. 4 JUDGE DEFRANCO: Okay. And splashing is spillage into an 5 opening, right? 6 MR. JENNINGS: In Hebblewhite it's from the air flow, it's creating waves and it's pushing it out. But if you think of Hebblewhite, I mean 7 8 tilting is you're basically changing the orientation of the surface relative to 9 your device, and if you think of Hebblewhite and you think of tilting 10 Hebblewhite, well that tube would have marginal, if any, impact but it would 11 actually have no impact because there's another opening on the inlet that 12 even if that tube could help you by a degree or two, it's going to flow out the 13 other opening. So Hebblewhite wasn't addressed to the tipping issue. 14 JUDGE DEFRANCO: I guess my point is here that splashing is a 15 form of spillage and tipping is just a greater degree of splashing or spillage 16 from a volume standpoint. They're both concerned with the water getting 17 into the outlet, whether it's tipping or splashing. Would you agree? 18 MR. JENNINGS: I mean we can use different terminology. I really do think Hebblewhite is about air flowing. You know, you look out when 19 20 it's a windy day and the air flows across the surface and creates white caps, 21 creates waves, and he's thinking about that in a much smaller context. He's 22 blowing air across the surface --23 JUDGE DEFRANCO: But when that air really gets demanding, like a 24 hurricane, it's --

1 MR. JENNINGS: It's turbulent, but tipping I think is a --2 JUDGE DEFRANCO: (Indiscernible) it's flow. 3 MR. JENNINGS: -- it's a reorientation of the surface, right? As the 4 figure in the '197 patent shows which after all, the spillage is an additional 5 advantage of that elongate flow tube which is initially described as providing 6 decreased noise which is very important for CPAP's, while also providing 7 sufficient humidification, given the overall combination and figure 6 shows 8 basically a reorientation of the surface relative to the humidifier and points 9 out that that tube would act as a weir in that situation. 10 JUDGE DEFRANCO: Now I understand your point, counsellor. Not 11 just sure yet that I agree with it, but we'll see. 12 MR. JENNINGS: If there's no further questions, I'll turn -- okay, 13 thank you. 14 MR. BELLINGER: Good morning. I'll be addressing the '547, '624 15 and '072 patents, and I'll track the order of Petitioner and start with the urging or urges limitation. So the urging limitation requires the single 16 17 motion of engagement presses the base of the water chamber into contact 18 with the heater and the meaning of that pressing force is derived from these three places. 19 20 One is the claim language itself. Whereas some claims use urges or 21 urging, other claims use the term disposes evidencing the urging or urges means something more than orienting or locating the water chamber relative 22 23 to the heater. The second is the file history. During prosecution of the '547 24 patent, the claims were amended to in one instance remove the urging

- language in favor of disposes language, further showing that the Patent 1 2 Owner intended those two terms to have different meanings, and the third is 3 the usage of the term urge in the specification while not used in the context 4 of urging the chamber based in contact with the heater. There's some 5 discussion of a latch being urged upward or downward which shows that the 6 Patent Owner intended urge to mean a pressing force. 7 Now the punchline here is that ResMed, Petitioner, reads the urging 8 language out of the claim. In their view the claim simply requires that the 9 single motion bring the water chamber into contact with the heater. But in 10 their view urging means nothing so long as the chamber would be brought 11 into contact with the heater in any way, under their view it would be urging, but that can't be the case given the difference, for example, between urges 12 13 and disposes in the claim and in the prosecution history. 14 JUDGE DEFRANCO: What does urging add to the "in contact with" 15 language? MR. BELLINGER: It adds the requirement of a pressing force. You 16 17 could bring two things into contact with each other without necessarily 18 having the motion press the two together. For example, you can slide one item over the surface of the other while gravity would be pressing down, the 19
  - motion urges the chamber base into contact, with the motion itself provide a

motion isn't pressing down. The urging has the requirement that the single

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1 JUDGE DEFRANCO: But isn't that the purpose of the whole 2 deadweight argument the Petitioner raised earlier, that the deadweight gives 3 a pressing motion as well? MR. BELLINGER: Gravity provides some sort of force that holds the 4 5 water chamber against the heater but, for example, as our expert explained in 6 his declaration, this is at page 37 --7 JUDGE DEFRANCO: Is it pressing? 8 MR. BELLINGER: Yes. There's a pressing force and there's an 9 importance of having --10 JUDGE DEFRANCO: From the deadweight or from gravity, right? 11 MR. BELLINGER: Gravity obviously will hold the chamber down. 12 JUDGE DEFRANCO: Right. 13 MR. BELLINGER: I don't dispute that, but the urging requires an 14 additional force beyond gravity. It's the single motion has pressed the 15 chamber more than just gravity against the heater and there's some benefits 16 to that. In some of these devices the bottom of the heater may not always be 17 even, it may get worn over time, it may be warped and if you're just relying 18 upon gravity, you know, the thing could wobble, whereas if you're taking 19 and firmly pressed it into contact you're insuring that the base of the water 20 chamber remains in firm contact with the heater and that allows you to have 21 even heating, whereas if it wasn't a firm contact and moved you would have 22 one part of the chamber that would be heated warmer than, for example, 23 another part.

1 JUDGE DEFRANCO: So based on that, what you just said, that 2 would mean the pressing would have to continue after the water chamber is 3 on the heater, correct? 4 MR. BELLINGER: Yes. The single motion engagement urges the 5 base of the chamber into contact so I would agree with that. It would be 6 pressed into contact. 7 JUDGE WOODS: Mr. Bellinger, if I may also interrupt and ask a 8 question. Thank you. So, I understand the definition provided by Petitioner 9 of urge includes "to force or impel in an indicated direction or into motion 10 for greater speed," and that's in Exhibit 1031. Based on that definition, it 11 appears that moving the water chamber in a direction so that its base contacts the chamber here would satisfy the claimed "urging" limitation. As 12 13 the Patent Owner, do you submit your own definition of urging, or, 14 somehow, can you explain how Petitioner's definition supports your 15 narrower interpretation? 16 MR. BELLINGER: Sure. We've not submitted a dictionary 17 definition of urge. However, as I explained before, you could have a force 18 that impels the water chamber over the heater plate, but if it's just simply sliding it across without any downward force, that's not what urging requires 19 20 in the term of the claims of the patent. That would simply be disposing. 21 You would just maybe dispose the water chamber over the heater, but you 22 haven't urged it into contact with it.

1 JUDGE WOODS: Okay. I'm focusing on the '624 patent in 2 reviewing the claim. So, are you arguing that the claims require the user to 3 actually apply a force just to meet that limitation? 4 MR. BELLINGER: The single motion of engagement creates the urging, so the user would be putting the chamber into the housing and as a 5 6 result of that single motion, the water chamber would be urged into contact 7 with the heater. 8 JUDGE WOODS: Okay. Thank you. 9 JUDGE DEFRANCO: Following up on that, is urging defining a 10 single motion or is urging defining the contact aspect of the claim? 11 MR. BELLINGER: I think it's connecting the two. It's the single motion of engagement urges the chamber into contact with the heater. 12 13 JUDGE DEFRANCO: Because it seems like the definition of urge, 14 and I did look this up, it's to force or impel in an indicated direction, so in 15 the single motion you're using the force to compel it in a direction that 16 would make contact with the water heater, not necessarily pressing it into 17 contact, just make contact. 18 MR. BELLINGER: Well, I think within the context of --JUDGE DEFRANCO: It seems like the definition of urging -- I'm 19 20 sorry to interrupt, but definitely just to follow through on this -- the 21 definition of urging is really talking about direction as opposed to 22 necessarily the force where that has to do with contact. 23 MR. BELLINGER: Let's say it's the direction of the force. It 24 connotes a force that has urged the chamber into contact with the heater, so

1 for example if we can go to slide 39. Here we have the embodiment that 2 was discussed previously of the slide-on direction that is not horizontal but 3 at an angle from the horizontal or vertical. So this would be an example of 4 the way that the urging could be accomplished. You've taken the water 5 chamber and rather than slide it across the surface of the chamber disposing 6 it, you're bringing it in at an angle. So you would have a downward 7 component of force that would press the base of that chamber into contact 8 with the heater plate. 9 Another example, if you go to slide 40. So this is another usage of 10 urges in the patent. Now it's not in the context of the chamber being urged 11 into contact with the heater, but it's describing a flange. So, in the various 12 embodiments shown in the patent, there's a flange that helps retain the water 13 chamber in the housing once it's been inserted, and it's biased into an 14 upward position, has a beveled edge and so once you slide the water 15 chamber it contacts that beveled edge and urges the latch into a locking 16 position. So it's talking about you're sliding something over and you're 17 creating a downward force on that beveled edge to push, press that latch 18 downward, and then once the chamber is fully inserted, which is shown in 19 figure 2, because that latch is biased in the upward direction, it's urged back 20 upward so that's a vertically oriented pressing force. So these usages further 21 inform the meaning of urge or urges as used in the claims of the patents. 22 Now we heard counsel for Petitioner talk about the gravity, whether 23 the urging's important, that there's a latch. To finish up on my prior point, 24 the firm contact is important to maintain even heating and also during the

- 1 course of the night the user may fill the chamber with water, but as night
- 2 goes on the water evaporates and the chamber becomes lighter and gravity
- 3 becomes less of a holding force so it can be important that you have firmly
- 4 pressed the heater against the chamber so as the chamber gets lighter, you
- 5 get firm contact with the heater and that's further explained in Dr.
- 6 Schneider's declaration.
- And also there's other mechanisms beyond just the latch that would
- 8 hold the chamber into the housing. There's a flange at the end of the
- 9 chamber or at the bottom of the chamber in a slot which slides into the
- housing, so those are other elements of the claim beyond just the latch. You
- can't just rely upon the latch to hold this thing into place, it can be important
- 12 to have additional pressing force.
- JUDGE WOODS: Mr. Bellinger, if I could ask one more question,
- and, with all due respect having read the Patent Owner's response, I'm not
- 15 convinced that the description in column 7 of at least the '624 patent relates
- 16 to or ties the claimed urging to that angled sliding motion. Is there another
- description in the specification, not relating to a latch, but discussion that
- uses the term urging in connection with actually pressing the chamber
- against the heater? I can't seem to find one.
- MR. BELLINGER: Of course it's in the claim language itself, but
- beyond the slide 40 that we looked at where it discusses urging the contact
- 22 with the latch and slide 39, this angle slide-on direction, those would be the
- 23 two examples.
- JUDGE WOODS: Okay, thank you.

1 MR. BELLINGER: Now on reply, Petitioner has changed their 2 position as to the weight that the urging limitation should be given. In the 3 petition they treated it as a limitation and attempted to show how the prior 4 art meets it although they merely just parroted the urging language without 5 actually explaining how any reference presses the base of the chamber 6 against the heater. 7 But in these claims, urging is more than simply a functional 8 limitation. It's not entitled to patentable weight. Petitioners cited several 9 cases in their briefing but those are all cases dealing with method or process 10 claims and they stood for the proposition that, at least two of them, that a whereby clause in a method claim that merely recited the necessary result of 11 12 the previously claimed steps should not be entitled to patentable weight. But 13 that's not the situation we have here. The urging isn't a necessary result of 14 the other elements of the claim, it's adding an additional limitation and the 15 Federal Circuit has held it's permissible to define structural claims in terms 16 of function that the structure obtains. So, clearly at the outset, Petitioners 17 treated this as a limitation of the claim and in fact it is a limitation of the 18 claim. 19 JUDGE JUNG: Mr. Bellinger, here in the specification of any of 20 these patents does it describe expressly that it urges the water chamber on to 21 the heater plate? 22 MR. BELLINGER: So I would go back to the slide 39, the angled 23 direction of insertion. That was an example of bringing it in and so you're 24 having a downward force component to the insertion and it would press the

- 1 base of the chamber into contact with the heater, and Dr. Schneider also
- 2 explained that in his declaration.
- 3 JUDGE JUNG: When I read the claims that require urging, is this the
- 4 embodiment they're talking about? Is this one of the embodiments they're
- 5 just covering?
- 6 MR. BELLINGER: This would be one way that the urging could be
- 7 accomplished, that the base of the water -- the single motion could press the
- 8 base of the water chamber --
- 9 JUDGE JUNG: And the claims also could mean the horizontal slide-
- 10 on?
- MR. BELLINGER: If you were simply disposing the chamber onto
- the heater plate and there was no pressing force, then that would not be
- urging, that would be in these other claims that talk about disposing. So that
- would be more akin if you're simply sliding one thing over the other with no
- other downward component to the force other than gravity. That would not
- 16 be urging.
- 17 If we jump to slide 38. And so this is the example from the
- prosecution history and the '547 patent in which the Patent Owner changed
- and amended the claims, and this is just to remove the urging language but
- 20 to replace it with disposes, so again this illustrates that these two terms are
- 21 intended to have different meaning whereas the Petitioners all essentially
- treat urging as disposes. For example, they say Netzer or the HC200 urges
- 23 the base of the chamber into contact with the heater, but those references
- 24 merely describe sliding a chamber into a housing. I mean that's supposed to

- be where the heater is, but there's no discussion in any of the references
   relied upon Petitioners for the urging limitation of any pressing force so
- 3 they've effectively read that out of the claim and treated the urging claims as
- 4 being nothing more than disposing which is (indiscernible) --
- JUDGE DEFRANCO: Mr. Bellinger, where's the discussion of the reason for that amendment in the prosecution history?
- MR. BELLINGER: So this amendment was made in connection with another amendment in which the extension to limitations were added so it came after there was allowance of some claims that included the urging limitations, and then Patent Owner continued to prosecute the patent and changed in this claim to remove the urging limitation and replace it with
- disposes, and then add in some additional claim elements. So Patent Owner continued to pursue claims of different scope.
- JUDGE DEFRANCO: Did the Applicant expressly say the reason for that amendment is to make it broader?
- 16 MR. BELLINGER: No.

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- JUDGE DEFRANCO: I think that's troubling because the Federal Circuit's pretty clear that there has to be a clear statement of why that amendment was made. We can't be left to guess.
  - MR. BELLINGER: Well clearly here though the other claims in the patent had the urging language. It's not a situation where they simply removed language and replaced it with another and just kind of gave up on the old language. The urging limitation stayed in other claims and these claims were amended to remove that and add in additional language. Now

1 you have two sets of claims in the same patent, one using disposes, one 2 using urges, and as we've cited in our Patent Owner response there's 3 different claims, different terms in claims are presumed to have different 4 meanings so --JUDGE DEFRANCO: I'm not saying that's not the reason the 5 6 Applicant made that. He or she very well could have had that in mind but 7 they didn't state it. That's the issue here. 8 MR. BELLINGER: I don't believe there is an explanation in the 9 response to Office Action, but I would say by leaving in urging in some 10 claims and changing others to disposes, it was clear that those terms were 11 intended to have two different meanings and not mean the same thing. So if we just quickly go through some of the art that Petitioners rely 12 13 on, so if we can go to slide 41, please. So the Petitioners relied upon Netzer 14 for the urging limitation, but again the Petitioners just parrot the language in 15 arguing that it's present in Netzer. Netzer never describes that the water 16 chamber is pressed into contact with the heater. It's not even clear in Netzer 17 where the heater is located. In addition Netzer has a housing that has 18 grooves shown as 27 in figure 1 and then the water chamber has guide profiles 26 which are shown in the bottom of figure 1 and figure 3. As these 19 20 guide profiles slide in to these grooves then you're merely pushing the 21 chamber into the housing. There's no discussion of any pressing force there. 22 Can we go to slide 42, please? Slide 42 shows Levine, which is 23 another reference relied upon by the Petitioners for the urging limitation.

1 JUDGE DEFRANCO: I'm sorry, Mr. Bellinger. Could you go back 2 to the Netzer slide? 3 MR. BELLINGER: Slide 41? 4 JUDGE DEFRANCO: Yes, please. Thank you. What does Netzer say the purpose of those grooves are again? 5 6 MR. BELLINGER: The grooves match the guide profiles on the 7 water chamber, so the chamber's shown at the bottom of figure 1 --8 JUDGE DEFRANCO: Right. 9 MR. BELLINGER: -- and so it's sliding into the grooves of the 10 housing. 11 JUDGE DEFRANCO: And does Netzer explain what the purpose of 12 the grooves are, or are you speculating as to what they are? 13 MR. BELLINGER: I would have to look and see. 14 JUDGE DEFRANCO: Or does your expert testify as to the purpose 15 of those grooves? MR. BELLINGER: Yes, I believe that Dr. Schneider explained in his 16 declaration that the water chamber of Netzer simply slides into the housing. 17 18 Let's see if we can get that (indiscernible.) 19 JUDGE DEFRANCO: Are Netzer's grooves similar to the embodiment in the claimed invention with respect to that flange 20 21 embodiment? 22 MR. BELLINGER: No. The flange embodiment is shown in some of

the embodiments of the Fisher Paykel patents. It's located at the base of the

chamber and then it does talk about there's a slot that the flange at the base

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- of the chamber slides into. And here's a description in Netzer. So we're at
- 2 page 10 and it states lateral guide profiles 26 are provided on the liquid
- 3 container 9 which engage in corresponding guide grooves 27 in a humidifier
- 4 housing 8. By these means the insertion of a liquid container 9 and a
- 5 humidifier housing 8 is facilitated and the positioning of the liquid container
- 6 9 beneath humidifier housing 8 is approved. So it's talking how they aid in
- 7 the insertion.
- 8 JUDGE DEFRANCO: Okay. And that description says nothing
- 9 about the purpose of the grooves being to facilitate the contact with the
- 10 heater?
- 11 MR. BELLINGER: No, no.
- 12 JUDGE DEFRANCO: Okay.
- MR. BELLINGER: And Petitioners have not identified anything in
- 14 the petitions to the contrary.
- 15 JUDGE DEFRANCO: All right. Thank you.
- MR. BELLINGER: And the same is true as well for Levine, if we go
- to slide 42. So Levine again has a lip at the base of the chamber and that lip
- is engaged in the channel on the heater base such that one slides over the
- other, and there's no description in Levine of any pressing force on insertion
- of the water chamber against the heater, and the same is true for the HC200
- 21 manual device as well. There's no description of that made with any
- pressing force. It merely talks inserting the chamber into the housing. So in
- 23 the interest of time, unless there's further questions on that I will move on to
- 24 the auxiliary limitation.

1 If we can go to slide 44, please. So the claim language here requires a 2 patient outlet that includes two separate things. One a connector for 3 receiving a breathing hose as stated in all claims and two, at least one 4 auxiliary electrical connection plug or socket or pneumatic connection plug 5 or cord, and the term auxiliary denotes a structure that is separate from the 6 connector for receiving the breathing hose and further recitation in the claim 7 the auxiliary plug, socket or port also connotes further structure, such that 8 the auxiliary electrical connection plug or socket is distinct from the 9 connector for receiving the breathing hose. 10 ResMed again (indiscernible) urging essentially reads this limitation 11 out of the claim and attributes no meaning to auxiliary electrical connection plug or socket as evident by the manner in which they apply that claim 12 13 language to Bahr. 14 So if we can go to slide 47. So here's some definitions submitted by 15 Patent Owner of plug, port or socket and you'll see that in each of the 16 definitions a specific structure is connoted. So, for example, plug the device 17 for making an electrical connection existing in an insulated casing with 18 metal pins that fit into the hole of the socket so a distinct structure. Port, an 19 aperture opening, in particular a socket in a computer network into which a 20 device can be plugged. Again, a distinct structure and similarly socket, 21 highlighted definition two. An electrical device for receiving a plug or 22 lightbulb to make a connection.

1 So the important thing here is all three of these definitions connote a 2 distinct structure. So when we have an auxiliary connection plug or socket 3 that is a distinct electrical connection plug or socket. 4 If we can go to slide 50. So here's one embodiment in the patent that 5 describes additional electrical pneumatic connections, so here you have the 6 outlet that seals with the conduit of the breathing hose, that would be 51, 7 that's where the breathing hose conduit would attach and then separate from 8 that you have element 54 which is the additional electrical or pneumatic 9 connection 54, and there are benefits to having that electrical connection separate and distinct from the breathing hose connector, as you can see in 10 11 figure 4 which allows for the connector potentially to be removable which 12 has benefits in terms of the user can simply remove that elbow and clean it 13 while leaving the electrical connections and contacts in place. If the 14 electrical contacts are actually on the outlet that seals with the breathing 15 conduit, if the user tried to clean the conduit which you often need to do in 16 CPAP devices, a user using humidifier devices where the patient is breathing 17 through and they're intended to be regularly cleaned, if you have your 18 electrical contacts on the surface of the outlet that seals with the hose, it's 19 going to be exposed to liquid. When the patient goes to clean it they're 20 going to get it wet, it's going to get cleaning solution on it, so there's 21 benefits to having the additional electrical and pneumatic connections be 22 separate and distinct from the connector that seals with the conduit of the 23 breathing hose.

1 JUDGE DEFRANCO: Let me ask. How separate and distinct do the 2 two connectors have to be, meaning the gas connector and the electrical 3 connector in order to be separate and distinct? Does it have to be a space 4 between the two? 5 MR. BELLINGER: They need to be separate and distinct structures, 6 so clearly having some sort of space between them would make them 7 separate and distinct. If we go to the next slide. 8 JUDGE DEFRANCO: So they have to be detached from each other, 9 physically detached? 10 MR. BELLINGER: I mean I can envision ways where you might 11 make things mold as a common piece but still have some separation between 12 them such that the conduit of the breathing hose when it's attached, the 13 auxiliary connection is not part of that connection even though there may be 14 some attachment at another location. 15 JUDGE DEFRANCO: So they have to be capable of being detached 16 independently of the other? 17 MR. BELLINGER: You mean removable from the CPAP machine? 18 JUDGE DEFRANCO: Right. 19 MR. BELLINGER: No. Sorry, to flip back. Oh, we're at slide 50 20 still. I mean electrical pneumatic connection 54 in that embodiment is not 21 described as being detachable from the CPAP machine whereas in this 22 particular shown embodiment the connector that seals with the conduit of the 23 breathing hose is detachable.

1 JUDGE DEFRANCO: See where I'm going with this, I'm just 2 confused as to how separate and distinct they have to be? When you look at 3 the prior art, it seems like that electrical connection is separate from the gas 4 port. 5 MR. BELLINGER: Well if we go to slide 51. So Bahr is describing 6 a ventilator. It describes a gas port and then describes electrical contacts 7 located on the mating surface of the gas port. So the mating surface of the 8 gas port is shown in blue on slide 51. That's the surface to which the 9 conduit, shown on the right hand side, fits over and seals it. So --JUDGE DEFRANCO: We're agreed they're separate structures, and 10 11 one is the port for the gas and the other is the electrical contact for the electricity. 12 13 MR. BELLINGER: There are electrical contacts located on the 14 surface of the port. 15 JUDGE DEFRANCO: But electrical contacts have nothing to do with 16 the transfer of gas, correct? 17 MR. BELLINGER: They form part of the sealing surface between the 18 conduit and the gas port. They're on the mating surface so they are not 19 auxiliary to the connector for receiving the conduit of the breathing hose. 20 They are part of that connection. In addition they're not --21 JUDGE DEFRANCO: But do they function to transport gas? The 22 electrical connectors, do they function to transport gas? 23 MR. BELLINGER: They function to form part of a seal to keep gas 24 from escaping. They are part of the mating surface of gas port. They're not

- 1 auxiliary to it. It's one piece. It's unlike the figure 4 of the patent that we
- 2 just looked at, and they're not described either as being plugs or sockets,
- 3 they're merely described as being contacts. There was some discussion
- 4 before about whether they were raised or bumps. There's no description in
- 5 Bahr of that. They're simply described --
- 6 JUDGE DEFRANCO: Does Bahr describe electrical contacts as a
- 7 seal?
- 8 MR. BELLINGER: It describes the contacts being located on the
- 9 external mating surface of the gas port so the mating surface of the gas port
- is what's sealing with the conduit.
- JUDGE DEFRANCO: If that's the mating surface of the gas port,
- what I'm getting at is how do the electrical contacts contribute to any sort of
- seal? I've never seen -- and correct me if I'm wrong -- electrical contacts as
- 14 facilitating a seal as opposed to the structure of the conduit itself.
- MR. BELLINGER: Well, I believe when Bahr says they're on the
- mating surface, that is the sealing surface. They are part of the gas port.
- 17 They're not an auxiliary electrical connection plug or socket. There was
- some description before as to whether they're plugs, whether there's raised,
- 19 there's no description in Bahr of these being raised. In fact if you look at
- 20 figure 3, that gas port, the edges are shown as being straight. If those
- 21 contacts were actually a raised plug you would see bumps where they are,
- but they're not. They're flush. They're merely points of contact on the gas
- port.

1 JUDGE DEFRANCO: So you're saying if you took away those 2 electrical contacts, you wouldn't have any seal? 3 MR. BELLINGER: I'm not sure how it would operate if you took 4 them off. I imagine you could take them off and still form a seal with the 5 surface that's underneath them, but when they're there, they're part of the 6 mating surface and they're part of the gas port. They're not an auxiliary 7 connection. Bahr has combined them into the same connection. 8 And that's the theory in the petition as well. If we go to slide 52. So 9 in the petition the position was that the external mating surface -- I'm 10 reading from the top box -- the external mating surface 46 of gas port 44 11 includes a pair of electrical contacts 48A and 48B. So at that time the 12 Petitioner was taking the view that those electrical contacts are on the 13 mating surface and that would be the sealing surface. 14 Now on reply Petitioners have changed their position and offered an 15 alternative theory in which they tried to take the gas port 44 and draw an 16 imaginary line separating the distal rightmost end from the contacts and they 17 tried to say that the sealing is only at the distal end and therefore the 18 electrical contacts are auxiliary to that. But that wasn't the position taken in 19 the petition, and it's inconsistent with the disclosure of Bahr. And in fact if 20 you look at, I don't have a slide for this, but this just came up here. If you 21 look at figure 2 of Bahr, for example, which shows a Y-shaped connection, 22 on the right hand side you have a pair of electrical contacts that are shown. 23 On the left hand side there's no contacts and so if the sealing portion was 24 only the portion proximal to the contacts, then the connector on the left hand

- side wouldn't need to be that thick. They would just be as thick as basically
- 2 what's between the contacts and the end of the connection. But in figure 3,
- 3 Bahr makes the contacts or makes the connecting parts the same width,
- 4 whether they have the electrical connection or not and the seal is formed
- 5 upon the length of that connection. It's the mating surface and Bahr simply
- 6 takes and positions electrical contacts on that surface and does not teach or
- 7 suggest auxiliary electrical connection plugs or ports.
- 8 JUDGE DEFRANCO: Mr. Bellinger, what are we to take from this
- 9 language of claim 11 of the '072 patent that talks about the connection being
- 10 a simultaneous connection and a complementary connection, in reading that
- in the context of this electrical connection?
- MR. BELLINGER: Yes. That's where they're describing the
- relationship of the components, so that when you're attaching the breathing
- 14 hose conduit and sealing with the port, you're also at the same time making
- 15 the separate electrical connection. So that would be different than, for
- 16 example --
- JUDGE DEFRANCO: Well it doesn't say separate. It says
- 18 simultaneous connection having complementary connectors.
- MR. BELLINGER: Yes. The auxiliary connections have already
- been defined by that point so it's stating when you're making the
- 21 connection, you're basically plugging in the breathing hose. It's going to
- have the conduit which the gas is going to pass to the patient and have
- 23 corresponding portions that would mate with the auxiliary electrical or
- 24 pneumatic connections so it's saying we can make that connection

simultaneously. So, for example, that would be distinct from Petitioner in 1 2 their presentation talking about the Kenyon reference that was cited during 3 prosecution that included a hole through for measuring pressure but that 4 opening was not located on the sealing surface between the outlet and the 5 conduit of the patient hose. It was offset distally from it. 6 In Kenyon, it wasn't the case that when you plug in that breathing 7 hose, you're somehow also plugging something into that opening for 8 receiving pressure, it's just a separate offset opening, so Kenyon, for 9 example, doesn't disclose the simultaneous connection. 10 JUDGE DEFRANCO: So the Applicant in that context was trying to 11 distinguish over something that was actually separated by space? 12 MR. BELLINGER: Well there is no -- and with respect to that 13 particular claim rejection over Kenyon, in response the Patent Owner argued 14 the patentability of the independent claim and didn't even need to address 15 the rejection over Kenyon because it was related to a dependent claim. I was 16 just using Kenyon as an example of something where you wouldn't have this 17 simultaneous connection. Kenyon is different from what's set forth in this 18 particular claim. 19 JUDGE DEFRANCO: Well, simultaneously could be interpreted as 20 side by side connection for initial two connections that are integral with one 21 another, correct? 22 MR. BELLINGER: Well as we saw in figure 4 of the patent, that 23 would allow for a simultaneous connection with the -- if you can go back to

the figure 4. So here when that elbow is inserted and when it's in place, that

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- would allow for a simultaneous connection. So you would take your 1 2 breathing hose, attach it to the CPAP device. You're going to form a seal 3 with the conduit of the breathing hose and then your breathing hose 4 connector is going to have a separate plug or port that's going to mate with 5 electrical pneumatic connection 54 simultaneously so the user can just take, 6 plug it in and not have to basically do it twice one connection at a time. 7 JUDGE DEFRANCO: Right. So that's the side by side connection? 8 MR. BELLINGER: That would be an example of a side by side 9 connection. 10 JUDGE WOODS: Mr. Bellinger, if I may also ask a question. So, I understand that in Exhibit 2006 you provide a definition of "plug" to be 11 12 device for making an electrical connection, and this is on page 47 of your 13 demonstratives, consisting of an insulated casing with metal pins that fit into 14 holes in a socket. Can you explain, based on that definition, whether Bahr's 15 structure, including electrical contacts 48A, 48B, are either plugs or sockets? 16 MR. BELLINGER: No. Bahr is simply described as electrical contacts on the mating surface of the gas port. It's not described as having 17 18 any sort of pin fit connection. It's not described as being an opening into 19 which some sort of pins on the breathing hose connector would fit into. It's 20 merely described as being a point of contact and as shown in the figures that 21 we looked at earlier, it's just a flush electrical contact on the surface. It 22 doesn't have any of the structural characteristics of a plug, port or socket as 23 set forth in these definitions.
- JUDGE WOODS: Thank you.

1 MR. BELLINGER: All right. So unless there's any further questions 2 on that, I did want to respond to some of the points on Bahr. So Bahr 3 describes a ventilator device. It doesn't describe a CPAP machine and 4 we've been looking a lot at figure 3 of Bahr and in describing that figure at 5 paragraph 21 of Bahr it talks about a ventilator for delivery of gas. There's 6 no description in Bahr of it being used with a humidifier and as our expert, 7 Dr. Schneider, explained in paragraph 103 of his declaration Bahr was not 8 be intended to be used in a humidified environment, and there's different 9 design considerations between the ventilator on the one hand and the CPAP 10 device on the other hand. The ventilator has been used in hospitals to treat 11 very sick patients. It's been used by trained clinical professionals who are 12 trained to how to install that conduit, remove it, reinstall it making sure the 13 connections are properly made. Between patients that conduit likely would 14 be disposed of so you're not installing and reinstalling the same conduit, 15 you're not getting a lot of wear and tear on that part of the connection or if 16 it's being used between patients, it's being professionally sterilized. 17 Whereas in a home use CPAP device, those aren't used by trained 18 clinical professionals, they're used by everyday people. If you took that ring 19 shaped connector of Bahr and put it in a humidified environment like a 20 CPAP device any water ingress into that connection, which you have a tube, 21 is going to pull at the bottom of the tube, and then you have Bahr's ring 22 shaped connectors essentially just sitting in water at that point and that could 23 lead to all sorts of problems. You can get short circuiting where the device 24 stops working entirely, you get interference with the signals being

- 1 transmitted, for example, that's regulating the temperature of the gas being
- 2 delivered to the patient. It can drive it too high, too low on the patient and in
- 3 the CPAP context you have the user who's taking off this hose, they're
- 4 supposed to periodically clean them. They're going to the sink, they're
- 5 rinsing it out, they're reattaching them. They're not being as careful as the
- 6 clinician in the hospital who's making sure everything is clean and dry and
- 7 the connections were properly made. They could be taking a wet connector,
- 8 plugging it in, and if you have this ring shaped electrical contact on the
- 9 surface of your outlet port, you're going to get it exposed to water and over
- 10 time it's going to corrode, and as Dr. Schneider has explained in his
- declaration, a person of skill in the art would not go to a connector like Bahr
- 12 for use in a CPAP device.
- 13 JUDGE DEFRANCO: But I thought Bahr said something about a gas
- 14 type connection?
- MR. BELLINGER: Yes. Bahr teaches a ventilator, so it's gas, but a
- 16 CPAP machine we had heard some discussion earlier about gas in a
- ventilator, gas in a CPAP machine, it's all gas. That's not entirely accurate
- in that a CPAP device when used with a humidifier is a highly humidified
- 19 environment and it's known that you get condensation in those
- 20 environments. You get the gas being loaded (phonetic) to the hose, it cools
- 21 a little bit, you get rain out, you get water, it pools back down and forces the
- 22 CPAP machine --
- JUDGE DEFRANCO: Well is water vapor a gas?
- MR. BELLINGER: Yes, water vapor is a gas.

1 JUDGE DEFRANCO: So gas tight connections would keep out water 2 vapor, correct? 3 MR. BELLINGER: Bahr is not intended to be used in that sort of 4 humidified environment. Bahr is not clear that it would keep out humidity 5 and there's other ways that humidity --6 JUDGE DEFRANCO: Does Bahr say that, that it's not supposed to 7 be used in a humidified environment? 8 MR. BELLINGER: Well it just says it's a ventilator with no 9 description of it being used in a humidified environment. There's no 10 description in Bahr in terms of describing a ventilator that you would attach 11 a humidifier to it. A humidifier is not shown in Bahr. 12 JUDGE DEFRANCO: Is there any testimony to say that you would never attach a humidifier to a ventilator? 13 14 MR. BELLINGER: Dr. Schneider testified that Bahr is not intended 15 to be used and does not describe use in a humidified environment, that's 16 paragraph 103. 17 JUDGE DEFRANCO: Does he explain why? 18 MR. BELLINGER: Because ventilators don't require use with 19 humidifiers. There's not any description in Bahr of that. But there's also 20 other ways that the water, if you took these contacts and used them in a 21 CPAP device, could reach the contact. It's not simply that you're using it and somehow you're getting water digress, it's really when the user is taking 22 23 it off, maybe water drips onto those contacts, the user cleans the gas port 24 with the contacts on it but doesn't dry it properly and it clogs the two

- 1 together. The user cleans the hose, the portion that connects to the gas port,
- 2 doesn't dry it sufficiently and puts them back together, so even if the seal
- 3 was gas tight as gas was flowing through it, there's still ways that water
- 4 would be introduced if you were to use that sort of design in a CPAP
- 5 machine, and one skilled in the art simply would not do that.
- So there are three other issues but the Petitioner didn't address those
- 7 so I have limited time anyway and was not planning on addressing them in
- 8 turn unless the Board has specific questions.
- 9 JUDGE JUNG: I have no questions.
- 10 JUDGE DEFRANCO: I do not.
- 11 JUDGE WOODS: No questions.
- MR. BELLINGER: Okay, thank you.
- MR. SCHERKENBACH: I'll start without slides. I don't need them
- 14 right at the moment. Let me go in reverse order and just try to give you
- where to look in the record for our responses to some of the key points
- because I only have 15 minutes and obviously can't cover them all.
- 17 So Bahr, Bahr was discussed. Judge Woods had questions, all of you
- had questions for both sides on Bahr. Let me say three things about Bahr.
- 19 First, on this issue of whether it pertains to any kind of liquid or a gas
- 20 containing a liquid. Again, if you look at Bahr, paragraph 4 of the reference
- 21 itself, says the context of the invention that we're talking about in Bahr is a
- fluid transfer device, so this is Exhibit 1011 at page 5, bracketed paragraph
- 23 4,

1 "A fluid transfer device which is used in patient care such as a liquid 2 ventilator which transfers a breathing liquid to and from a patient, a gas 3 ventilator or respirator which transfers gas to and from a patient or a dialysis 4 machine which transfers blood to and from a patient." 5 Okay. So it's about a fluid transfer device that includes both liquid 6 and gas. Now if you look at claim 5 of Bahr, this is on page 7 of the exhibit 7 of the reference, Bahr actually claims a fluid transfer system, so, again, fluid 8 includes liquid and gas and I won't read all the limitations but the punchline 9 is at the end there where you not only have a sort of the main conduit, but 10 you have the conduit having an interface permanently attached thereto for 11 mating with said port for simultaneously electrically connecting said 12 transmission line to said terminal and for producing a fluid coupling of said 13 conduit with said fluid transfer device. 14 So it would be awfully odd for Bahr to claim a system that 15 comprehends transferring liquids, as one example of a fluid, that has these 16 electrical contacts if they just couldn't possibly work as the Patent Owner 17 says they would. They would fail. They would short circuit. They would 18 get wet. All these things would happen to them. The reference belies the 19 argument that is being made to you. 20 Second on Bahr, on this issue of what would happen in Bahr if it got 21 wet, if the contacts got wet, our slide 28 which I won't dwell on, but we 22 pointed out in the briefing and in the declarations, all of these same 23 criticisms can be made and applied equally to the auxiliary connector 54 24 that's shown in the patent. It can get wet. You could have short circuits in

- that context because you've got humidified gas right next to it because the 1 2 patient is going to remove things to clean them. All of these arguments you 3 just heard apply equally to the embodiment in the patent. 4 Finally on Bahr, the third point is there's you heard a lot of argument 5 just now about how in fact the electrical contacts are constructed in Bahr and 6 I heard counsel say that they are physically part of the gas port or flush with 7 the gas port which is very important to their argument because otherwise 8 they really admittedly look like connectors or ports according to their own 9 definition. 10 With due respect, that argument is not correct. Bahr actually says 11 otherwise, so let's look at page 5 of Bahr. The right hand column at the very 12 bottom, this is the bracketed paragraph 19, the electrical contacts -- four 13 lines up from the bottom, 14 "The electrical contacts 18A and 18B which are located on an 15 internal mating surface 20 of the female interface." 16 So two of the contacts are located on the female part of the coupling. 17 They're not integral with it. They're not flush with it. They're not of the 18 same material as that coupling. They are located on it and the other two 19 contacts -- turn the page to page 6 of the reference -- the paragraph 22 says 20 the ventilator 40 includes a gas port 44, that's the round tube coming out for 21 the gas, which has on an external mating surface 46 two electrical contacts
- They're located on the surface. Not flush, not made of the same material, they are additional items that are located on these other parts of the

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48A and 48B.

device and so at the end of the day they satisfy the claim language of an 1 2 auxiliary electrical connection whether or not it has to be separate and 3 distinct according to the claim language of Bahr. 4 Now let me go to urging. I'm going to keep going in sort of reverse 5 order if I may, the urging argument, and a couple of points there. First of 6 all, on the case law issue. Let me see if I can find our slide. Counsel said oh, 7 on this issue of whether urging should be given patentable weight at all, 8 Patent Owner has only cited cases that pertain to process claims or method 9 claims, and not apparatus claims. That actually is not correct. For example, 10 in our reply in the 1717 case which pertains to the '072, we cite several 11 cases that on their facts were processed and then we go on to cite two cases 12 that are specifically apparatus cases. One was In re Schreiber which I 13 mentioned initially, I gave you the cite. That is an apparatus case and the 14 other is Hewlett Packard Co. v. Bausch & Lomb, Inc., 909 F.2d 1464 at 15 1469, and that case says, 16 "Apparatus claims cover what a device is, not what a device does." 17 So this principle that functional language is in general not a limitation 18 applies equally to method and apparatus, and just on that point one sort of 19 almost rhetorical question just sitting there listening to their argument, if 20 urging means what they say it means and has that sort of weight in these 21 claims, it strikes me that these apparatus claims could be infringed or not 22 depending on how somebody actually inserts the humidifier and whether 23 they continue to exert a force on the water chamber when it's sitting on the

plate. That's crazy. That cannot be the case for an apparatus claim.

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1 The '547 prosecution history argument. Let me just say a word about 2 that. I previewed this in my initial remarks -- sorry, it's actually not a 3 prepared slide -- but I encourage you to look at that. If there's any question 4 in your mind look at the '547 prosecution history and I think you're going to find three things on this issue or urging versus disposes and whether it's 5 6 important or not. 7 Number one, urging was never argued for patentability. No mention 8 of it whatsoever. The argument was about extension tubes for some claims 9 and about the single slide-on motion for other claims. There was no urging, 10 you know, should get these claims or disposes should get us these claims, no 11 argument. 12 Number two, the changes to the claims were not just replacing urging 13 with disposes. The phrase was changed from "urging adjacent and in 14 contact", that phrase "urging adjacent and in contact" to "disposes adjacent." 15 So it isn't the case that even if everything else about their argument you 16 accepted, we're not talking about substituting one word for another, we're 17 talking about substituting one phrase for another and the other differences in 18 those phrases matter. Adjacent and in contact means something different 19 than just adjacent. 20 And the last thing I guess I'll say is no one in the prosecution history, 21 here's the third point, either Patent Owner or the examiner applied some special meaning of urging. You're just not going to see it there. I think 22 23 Judge DeFranco you asked a question to this effect. I mean whatever the 24 Patent Owner intended did they actually verbalize it, did they actually say it,

- and I don't think you're going to find that there. We are not reading urging 1 2 out of the claim. We're not saying it's not in the claim, we're just saying it 3 doesn't carry all the baggage the Patent Owner says. 4 Let me go on to just to the '197 quickly and on analogous art because 5 this seems to be a sticking point between us and I at least want the legal --6 I'm going to go to our slide 55, sorry for hopping around here -- 55, and I want to focus in particular on the lower left box. This is a excerpt from our 7 8 reply, but what I want to focus you on is the cite to KSR which is the 9 definitive word on this, KSR, and the quote there is, 10 "When a work is available in one field of endeavor, design incentives 11 and other market forces can prompt variations of it either in the same field or 12 a different one." 13 So KSR says you aren't limited just to art, and of course that's an 14 obviousness case, that's the whole point. You're not limited to just the field 15 of invention of the patent, you can look to another field in appropriate 16 circumstances and Patent Owner's argument about Gouget boils down to 17 that's a totally different field. But that doesn't answer the question. It isn't 18 dispositive that's in a different field and their case, just as a final point on that issue, they do rely primarily on this Bigio case -- it's on their slide 22 --19 20 and that was pre-KSR. It was a pre-KSR case so to the extent they read that 21 case to have a narrower definition of analogous art, I suggest to you that 22 KSR sort of wins that battle. 23 In my last minute and a half, let me just deal with this issue of the
  - In my last minute and a half, let me just deal with this issue of the alleged problems that would happen if horizontal inlet tubes were added in

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- 1 the combinations in the way we proposed it, and on that issue there are two
- 2 sort of points here. One is, let me get to slide 57. Mr. Virr sort of
- anticipated this and said look, if it were the case that adding a horizontal
- 4 tube of a particular length of a long length to short circuiting of the gas from
- 5 the inlet to the outlet in a way that could be problematic, baffles were well
- 6 known. So that was the point of including Rose in the discussion.
- 7 Everybody knew about baffles. People knew how to use them. There were
- 8 very many variations on baffles as Rose itself describes. This is within the
- 9 skill of a person in the art without question.
- And I guess the last thing I'll say, and I'll just give you the slides to
- look at in our deck, the other thing you could do if you're concerned about
- 12 having inadequate humidification once you add a longer tube is just turn up
- 13 the heat. You may increase the temperature of the heater, very well known
- in the art. Our slides 51 and 65 collect that evidence. Their expert admitted
- 15 it. Our expert talked about it and it was a well known way to tweak the
- parameters to make the combination work, and with that unless you have a
- 17 question in the last 20 seconds?
- JUDGE DEFRANCO: I have no questions.
- 19 MR. SCHERKENBACH: Great.
- JUDGE JUNG: Thank you, gentlemen. Your presentations were very
- 21 helpful.
- (Whereupon, at 12:35 p.m., these proceedings were concluded.)

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