

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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CANFIELD SCIENTIFIC, INC.,  
Petitioner,

v.

MELANOSCAN LLC,  
Patent Owner.

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Case IPR2017-02125  
Patent 7,359,748 B1

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Record of Oral Hearing  
Held: December 7, 2018

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Before JOHN C. KERINS, MICHAEL W. KIM, and SCOTT C. MOORE,  
*Administrative Patent Judges.*

APPEARANCES:

ON BEHALF OF THE PETITIONER:

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The above-entitled matter came on for hearing on Friday, December 7, 2018, commencing at 1:00 p.m., at the U.S. Patent and Trademark Office, 600 Dulany Street, Alexandria, Virginia.

P R O C E E D I N G S

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JUDGE KERINS: Good afternoon. We have a final hearing this afternoon in Inter Partes Review IPR2017-02125. Petitioner Canfield Scientific and Patent Owner Melanoscan. My name is Judge John Kerins. With me in the hearing room is Judge Michael Kim and with us remotely is Judge Scott Moore. I'd like to get appearances for the parties on the record. Petitioner?

MS. HARTZELL: Julianne Hartzell on behalf of Petitioner.

MR. DUSTON: Your Honor, Thomas Duston on behalf of Petitioner.

JUDGE KERINS: Thank you. And Patent Owner?

MR. GIARRATANA: Yes, Your Honor. Mark Giarratana, McCarter & English on behalf of Patent Owner Melanoscan, and I'm joined by Dr. Rhett Drugge who is the inventor of the 748 patent and the principal (indiscernible.)

JUDGE KERINS: Thank you. Each party will have 60 minutes total time to present arguments including any time reserved for rebuttal. It's important for the clarity of the record if you refer to an exhibit that you state the exhibit and page number to which you are referring, and when you're referring to a demonstrative that you state the slide number. This will also assist Judge Moore who is remotely located and as he cannot see the screen. He does however have copies of the slides and all materials so he can follow along.

Petitioner has the burdens on showing unpatentability in

1 the challenged claims and on its Motion to Exclude Evidence and Petitioner  
2 will go first. Petitioner may reserve time for rebuttal on the main case and  
3 on the Motion to Exclude. How much time would you like to reserve?

4 MR. DUSTON: Your Honor, I'd like to try to reserve 20  
5 minutes but I understand probably it will be less than that when we get  
6 through the initial argument.

7 JUDGE KERINS: All right. Thank you. And Patent  
8 Owner will then have the opportunity to present its response to all issues.  
9 You may also reserve time for surrebuttal. How much would you like to  
10 reserve?

11 MR. GIARRATANA: Your Honor, I'll reserve 20  
12 minutes as well.

13 JUDGE KERINS: Thank you. Petitioner, you may  
14 begin.

15 MR. DUSTON: Good afternoon, Your Honors. As was  
16 indicated a moment ago, I'm Thomas Duston. I represent Canfield  
17 Scientific, the Petitioner. I'm joined by Julianne Hartzell of my office and  
18 this morning, or this afternoon rather, we'll be presenting arguments with  
19 respect to the IPR that was brought concerning U.S. patent No. 7,359,748,  
20 an application that was filed on July of 2000. That would be slide 2.

21 Let's if we can go to slide 8. Review was instituted on  
22 four grounds following the Court's SAS decision. This panel instituted  
23 review on the remaining fifth ground which is denominated here as ground  
24 two, the Hurley alone ground. I should make a mention, this slide has an  
25 error in it. The first ground there at the top should also reflect claim 46 as  
26 well.

1                   The four originally instituted grounds share the same  
2 primary reference and these grounds differ in combinations of the secondary  
3 and other references. Fifteen claims are challenged. Claims 1 and 51 are the  
4 sole independent claims in the patent.

5                   If we can go to slide 5, please. This is an illustrative  
6 claim, claim 1. Claim 1 is directed generally to a device that images all or  
7 some lesser portion of a person. It recites an enclosure having a plurality of  
8 imaging devices spaced both laterally and vertically. It includes appropriate  
9 light sources to illuminate the subject. The predetermined positions and  
10 specifications of the imaging devices relative to the imaging position allow  
11 measurement of image features.

12                  We can go to slide 6, please. This is the remaining  
13 independent claim, claim 51. It's identical to claim 1 except framed in  
14 means plus function language. In general the dependent claims which are  
15 challenged merely recite various permutations for the locations of the  
16 imaging devices or for the light sources and as we go through we'll see that  
17 those particular differences or additional elements are not the subject of any  
18 argument between the parties.

19                  Slide 13, please. Specific to that, this is a table of  
20 contents of the Patent Owner's response and as you can see here essentially  
21 the sole arguments advanced against the combinations that involve Voigt  
22 and Hurley are that Voigt and Hurley combination would lack motivation.  
23 The Patent Owner does not contest that the combination of those two  
24 references would disclose each and every limitation of the challenged  
25 claims.

26                  Similarly, if we could go to slide 42, again this is from

1 the Patent Owner's response. Once again with respect to what the Patent  
2 Owner is calling embodiment 2 in Crampton. The combination of Voigt and  
3 Crampton is not alleged to fail to disclose each and every limitation of the  
4 challenged claims solely. The arguments advanced are with respect to  
5 motivation to combine those references. So that's what I'll direct most of my  
6 comments to today.

7 Now, each of these references concerns the use of an  
8 enclosure to image areas of the human body. Like Voigt, Hurley and  
9 Crampton note that their systems are intended for the extraction of  
10 measurements for the use in health and medical applications. Voigt is  
11 concerned with imaging areas of the human body for cancer detection and  
12 both Hurley and Crampton, as well as the Daanen reference which is also the  
13 subject of some of the grounds, explain ways in which various camera  
14 configurations are suitable for enclosure can be used to obtain images of  
15 areas of the body that would be of concern for the type of cancer screening  
16 that Voigt is directed to.

17 If we can go to slide 68, please. I don't think this is any  
18 longer an argument. It was suggested in the Patent Owner response that  
19 perhaps the references, the secondary references in particular, were not  
20 analogous. The Patent Owner has made clear that they are not advancing  
21 that argument.

22 In fact if we go to slide 67 the inventor himself is  
23 testifying at deposition that in order to solve the problems that he sought to  
24 solve he looked specifically to the types of imaging systems that are  
25 described in references such as Hurley and Crampton, and Daanen.  
26 Specifically he looked at various 3D laser body scanning devices having

1 moving camera arrays such as a Cyberware device that's depicted in Daanen,  
2 Exhibit 1005, for his body imaging solutions.

3 If we can go to slide 9, please. Now the primary prior art  
4 reference Voigt, Exhibit 1003, teaches a use of an enclosure to provide  
5 consistent and reproducible imaging of the human body. Voigt describes  
6 fixing a camera shown in green here on the diagram having a particular  
7 resolution and focal length within an enclosure at known coordinates a  
8 predetermined distance from a specified imaging position, and that imaging  
9 position consists of a stand which is indicated in red and positioning sliders  
10 which are shown in blue. Now Voigt allows --

11 JUDGE MOORE: Counselor.

12 MR. DUSTON: Yes.

13 JUDGE MOOR: Where is the color-coded diagram  
14 you're referring to?

15 MR. DUSTON: I apologize. It should be slide 9.

16 JUDGE MOORE: Okay. Thank you.

17 MR. DUSTON: Sorry about that, Your Honor. So Voigt  
18 allows for precise measurement of image features through this mechanism of  
19 an enclosure and in Voigt's case these features that were measured were  
20 potentially cancerous skin lesions of the human body. Generally speaking  
21 that was indicative of potential melanoma.

22 If we go to slide 32, please. Voigt depicts the imaging of  
23 the torso of a human subject both front and back and because it used a single  
24 camera, Voigt's device required repositioning of the subject to capture the  
25 necessary images. Now, Voigt acknowledges that those in the art sought to,  
26 in its words, "extend the quantity and the quality of skin surface

1 information" and that appears at page 981 of the Voigt reference, Exhibit  
2 1003. Dr. Muller specifically addresses that motivation that's been  
3 expressed in Voigt in his declaration, Exhibit 1016 at paragraphs 116, 133  
4 and 215 as examples.

5 Now while Voigt focuses on the torso area the prior art  
6 also cites -- that it cites rather -- also identifies other areas of the body such  
7 as the lower body that are also areas of concern that need evaluation in  
8 cancer screenings, specifically Voigt makes reference to examples of total  
9 body photography, specifically the Slue article S-L-U-E which as been  
10 introduced as Exhibit 2026 by the Patent Owner. Now, at least five -- so to  
11 summarize -- at least five years before the application was filed for the 748  
12 patent, Voigt explained that its enclosure, by fixing the position of the  
13 camera relative to the subject's imaging position and employing insistent  
14 illumination, it was thereby possible to accurately measure imaged skin  
15 features and to also overcome issues in the prior art that had to do with the  
16 reproducibility of those patent images from session to session.

17 What Voigt lacked, essentially the only thing it lacked in  
18 connection with the obviousness inquiry here for the 748 patent, is more  
19 than one camera. The remaining elements were all present in Voigt as this  
20 Board has found in its Institution decision.

21 If we can go to slide 10. Now Hurley is another  
22 reference, an article that came out years before the application for the 748  
23 patent was filed. It likewise describes an enclosure for imaging a person  
24 consisting of multiple video cameras arranged about the subject and spaced  
25 again, in this instance, both vertically and laterally. Now similar to Voigt,  
26 Hurley's camera enclosure was intended to extract measurements of the



1 imaged subject.

2 Now as Dr. Muller has testified, a person of ordinary  
3 skill in the art would have been motivated by the disclosures in these  
4 references as well as his own understandings of the manner in which  
5 imaging is achieved, to modify Voigt to incorporate multiple cameras  
6 because of the numerous obvious advantages of this multi-camera  
7 arrangement and according to Dr. Muller, multiple fixed cameras would not  
8 only provide coverage equivalent to that of Voigt's single capture camera.

9 If we can skip back up to slide 32 for a moment.

10 Multiple cameras would not only provide coverage equivalent to that of  
11 Voigt's single camera, but would do so at increased resolution. This is  
12 discussed in our petition at pages 29 and 30 and in Dr. Muller's exhibit  
13 declaration 1016 at, among others, paragraph 119, and this is so because  
14 each camera, when you multiply the number of cameras, each camera is able  
15 then to focus on a smaller area of the torso in this instance and therefore to  
16 increase the number of pixels that are available to record those features. So,  
17 again, the multiple of cameras even with the equivalent coverage that Voigt  
18 is talking about, the multiplication of cameras will lead to higher resolution,  
19 a greater quantity and quality of skin image information that would be  
20 acquired and that was one of Voigt's goals. A person of ordinary --

21 JUDGE KERINS: Mr. Duston, did Voigt at all suggest  
22 that there is a need to improve the resolution of its images? Didn't their  
23 paper convey success in measuring images and measured changes in  
24 images?

25 MR. DUSTON: I think it did, Your Honor, except that in  
26 talking about both the prior art approaches as well as in discussing the

1 criticality of the type of resolution that was needed to diagnose these life  
2 threatening diseases like melanoma, Voigt makes clear that this is not the  
3 end of the road. This is not what someone should necessarily think is the  
4 stopping point for improving upon the system that Voigt describes and one  
5 example that is, as we talked about, Voigt describes imaging the torso but  
6 the references that it refers to that talk about the photography necessary to  
7 evaluate skin cancer also image other areas of the body which Voigt's  
8 system, at least in the demonstration model that it was testing its principles  
9 on, does not so clearly somebody coming to Voigt would be interested in  
10 expanding Voigt's coverage to include the lower body and also in doing so,  
11 to multiply the number of cameras in order to increase the resolution that  
12 Voigt has perhaps even beyond what Voigt was able to achieve in its device.

13                   Now, a person of ordinary skill in the art would  
14 understand, as I said and according to Dr. Muller, that increased coverage  
15 could be further accomplished by positioning not only more cameras to  
16 cover the torso that Voigt is directed to but also vertically arranging cameras  
17 so that the camera array can capture not only the torso but the lower body as  
18 well, and there is yet another reason why that vertical arrangement would be  
19 something that would be motivating to a person of ordinary skill in the art  
20 and that is, as Dr. Muller testified, the vertical arrangement of cameras  
21 allows you to reduce the size of the enclosure. Make more efficient use in  
22 other words of the enclosure because a single camera to capture the entire  
23 height of a person would have to be positioned a particular distance from  
24 that individual. If you divide that space into two and direct multiple cameras  
25 to that same distance from head to toe, you could bring those cameras in  
26 more closer to the subject and therefore make more efficient use of the

1 enclosure as well.

2 JUDGE KERINS: So we're not talking about reducing  
3 the size of the Voigt enclosure. Are we talking about not having to enlarge  
4 it if we're going to use additional cameras?

5 MR. DUSTON: We are talking about not having to  
6 enlarge it --

7 JUDGE KERINS: But we're not shrinking it?

8 MR. DUSTON: Not necessarily shrinking it although,  
9 depending on the number of cameras Your Honor, you could shrink that  
10 enclosure further if you multiplied let's say from two to three to four  
11 vertically spaced cameras you could bring each of them in even closer and  
12 therefore not only would you get the full height of the person but I think you  
13 would also make a change in the dimension of the Voigt enclosure as well.

14 JUDGE KERINS: We're not going there with the  
15 proposed ground (indiscernible)?

16 MR. DUSTON: I'm just responding to Your Honor's  
17 question about whether or not more cameras could possibly affect the size of  
18 the Voigt enclosure. I think based on Dr. Muller's testimony and the  
19 rationale that he's offered, I think that principle would be present, that that  
20 could be a reason to further reduce the enclosure size. Crampton talks about  
21 that specifically in discussing the effect that multiple vertically spaced  
22 cameras have on the distance and the size of the enclosure.

23 JUDGE KERINS: Thank you.

24 MR. DUSTON: The other rationale that Dr. Muller  
25 identifies for the modifications that he proposes to Voigt is also that the use  
26 of vertically spaced cameras in this instance to capture not only the coverage

1 that Voigt already captures but to improve upon that coverage, that the use  
2 of these fixed cameras would also allow the person to eliminate the  
3 adjustment mechanism that Voigt uses to position its camera at the  
4 appropriate height for various sized individuals. If you fixed the cameras  
5 vertically you could cover that entire range for the population as a whole and  
6 not need the adjustment mechanism and therefore that would yet be another  
7 reason to make that modification.

8 JUDGE KIM: I mean isn't Patent Owner directly arguing  
9 that that's the intended purpose of it, the vertical adjustability of the system  
10 and by that removing that you're removing a key feature of Voigt and one of  
11 ordinary skill wouldn't do that?

12 MR. DUSTON: They do suggest that the modifications  
13 that we're proposing would work a -- I think what they call change the  
14 principle of operation of Voigt. If we can go to slide 19. But this Board's  
15 already addressed that issue, Your Honors, and found that the Patent  
16 Owner's position is both flawed factually and legally. This Board has  
17 already concluded that the imaging is not affected by switching the fixed  
18 position cameras or to fixed position cameras or imaging devices. If we go  
19 to 18.

20 JUDGE MOORE: But counsel please remember that was  
21 on the basis of an incomplete evidentiary record and that was a preliminary  
22 determination for institution purposes only.

23 MR. DUSTON: I understand, Your Honors. But nothing  
24 has really been introduced into the record since that time that is any different  
25 than the arguments that have been made previously.

26 The other point to make I think is also that as this Board

1 has recognized, the principle operation is the scanning of the skin, not  
2 necessarily the adjustment of the camera. The adjustment of the camera  
3 simply is necessary so that a single camera can do what two fixed cameras  
4 could do better. There's nothing about the adjustment of the camera other  
5 than that it allows for the positioning of the camera relative to the imaging  
6 position in a known fashion each time the patient steps up and has his body  
7 recorded. Because that camera has a limited field of view it's necessary to  
8 make that adjustment. If you expand the field of view as you do with two  
9 vertically spaced cameras, that adjustment is no longer necessary. It's an  
10 improvement upon Voigt, it doesn't change Voigt's operation. It still  
11 manages the imaging that's required and it still makes the registrability issue  
12 -- still meets those requirements of Voigt.

13                   Now Voigt talks about the ability to have this  
14 registrability. One suggestion is that the sliders that are to the side of the  
15 enclosure -- why don't we take a look at that slide. It's 9. So Voigt employs  
16 a camera in a reported position to take a picture of a particular individual  
17 standing before it and because it puts that camera in the same place each  
18 time, that person's torso has the same relationship to the camera and to the  
19 sliders of each image taken months apart and this allows for Voigt to  
20 basically identify and register, identify lesions in one image as being the  
21 same lesion as was shown in a different photograph taken at a later time  
22 because that lesion spatially has the same relationship to the sliders and to  
23 the camera, and to the field of view.

24                   But with a fixed camera, that would still be possible, as  
25 Dr. Muller has testified, but you wouldn't need to adjust the camera for each  
26 individual because that field of view would now encompass all individuals.

1 So when an individual stepped into that field of view it would have the same  
2 relationship to the sliders and to the camera and to the field of view as it did  
3 in the earlier session. So it would still be possible to perform the  
4 registrability function that Voigt describes, but in doing so eliminate moving  
5 pieces and things that require time consuming adjustment.

6 JUDGE KIM: But you're adding other things, right? I  
7 mean you're adding extra pieces, you're adding (indiscernible) --

8 MR. DUSTON: We are adding extra, yes, Your Honor.

9 JUDGE KIM: -- extra trade-offs to it?

10 MR. DUSTON: There are trade-offs and as I think we  
11 will discuss in a little while here, particularly in connection with the  
12 Crampton combination is the question of costs and benefits and it's simply a  
13 weighing of what makes the most sense. Our argument is that in this  
14 particular instance with Voigt and the criticality of this kind of a system  
15 operated by trained individuals in a medical setting with costs being less of  
16 an issue and the results being more of an issue, the benefits outweigh those  
17 costs as compared to the system in Crampton that may suggest a lower cost  
18 enclosure for its sort of photo kiosk mall-type avatar generating device.

19 So Dr. Muller, as we've said, testified that spacing these  
20 cameras both laterally and vertically serves to extend the quantity and the  
21 quality of the skin information which is what Voigt sought to do, particular  
22 for curved surfaces as Dr. Muller points out. The lateral spacing and the  
23 vertical spacing for that matter more effectively captures curved surfaces  
24 which might present issues for a single camera where those curved surfaces,  
25 as they curve away from that camera or as they are otherwise occluded by  
26 anatomical features such as the belly or the breasts, they would more

1 effectively capture the skin area that Voigt seeks to evaluate and so one of  
2 skill in the part would be motivated therefore to take the single camera of  
3 Voigt and to multiply it in terms of a lateral arrangement and a vertical  
4 arrangement in front of the subject who's standing on the stand to more  
5 clearly capture more skin area, capture it in greater resolution and capture it  
6 more effectively.

7 JUDGE KERINS: Isn't the original reason to combine  
8 mean original reason to combine the ability to cover the entire body without  
9 repositioning? I see that at petition 30.

10 MR. DUSTON: It is mentioned as one of the  
11 motivations to include cameras all around the individual, Your Honor, but --

12 JUDGE KERINS: I know but we're talking about simply  
13 modifying Voigt (indiscernible.)

14 MR. DUSTON: Understood, Your Honor. So there are  
15 several modifications that Dr. Muller just testified to and the ones that I've  
16 been talking about largely for the most part can be discussed in terms of that  
17 front camera, the front single camera. We can now multiple that to make it  
18 vertical. We can space those vertical arrays and we can obtain more image  
19 coverage of the front of the body. Dr. Muller also talks about the advantages  
20 of then replicating that type of a scenario on the back of the individual so  
21 that it's not necessary to reposition the person in order to get both their front  
22 and back which is a requirement of Voigt's system because it only has one  
23 forward facing camera.

24 But Dr. Muller presented a variety of motivations, all of  
25 which lead to various improvements on Voigt. The improvements on Voigt  
26 though are not wholly limited to attempting to image the entirety of the

1 person in 360 degrees, there are other advantages to---

2 JUDGE KERINS: (Indiscernible) does it -- would it  
3 even accomplish that? Could it be reasonably expected to accomplish that?

4 MR. DUSTON: I think it would, Your Honor. Dr.  
5 Muller gives testimony as to exactly how one would go about modifying the  
6 Voigt device if one wanted to position cameras behind the individual.

7 JUDGE KERINS: I was referring more to the imaging  
8 the entire body.

9 MR. DUSTON: Well, if that -- if your question Your  
10 Honor is with reference to the sliders and whether or not the sliders --

11 JUDGE KERINS: It is.

12 MR. DUSTON: -- presence would interfere with that, let  
13 me address it this way. First of all, I think Melanoscan's effort to recast Dr.  
14 Muller's testimony as requiring the imaging of every single inch of a human  
15 subject is belied frankly by Dr. Muller's testimony itself. Now Dr. Muller  
16 did not say that at any point in his declaration nor does the petition make that  
17 point. Dr. Muller at paragraphs 117, 134, 146, 180 as just examples, Your  
18 Honor of Exhibit 1036. In those paragraphs of his declaration, Your Honor,  
19 Dr. Muller addresses exactly what he's talking about. For example, let's look  
20 at paragraph 180. He testified that it would have been obvious "to use  
21 additional cameras in the Voigt system in any location that would allow for  
22 imaging of a larger region than the single camera system disclosed in  
23 Voigt."

24 Now the Board itself has previously acknowledged that  
25 Dr. Muller's combination does not require the imaging of every inch of skin,  
26 that the sliders would remain in the combination that Dr. Muller proposes



1 and Dr. Muller explicitly proposes including the sliders. But Dr. Muller also  
2 indicates in response to the arguments that the Patent Owner has raised that  
3 the sliders are not defined in Voigt as having any particular size or  
4 configuration and that in fact --

5 JUDGE KERINS: Well they're illustrated, are they not?

6 MR. DUSTON: There are examples given, Your Honor,  
7 but I would hesitate to suggest that they're to scale in this drawing. But the  
8 point I'm also making, Your Honor, is that a person of ordinary skill in the  
9 art would also know that these sliders could have a different configuration  
10 than what we see here in the Exhibit 1003 and that --

11 JUDGE KERINS: So why do we even have Voigt as a  
12 reference if we're making all these changes including changing the sliders?

13 MR. DUSTON: Well we're not actually changing the  
14 sliders or their functionality, Your Honor, we're simply understanding that  
15 the sliders that were suggested in Voigt are capable of remaining in the  
16 combination. There's no need to redo Voigt to eliminate the sliders but to  
17 the extent that those sliders might interfere with the goals of imaging certain  
18 skin areas, they could be reduced in size and still perform the function. The  
19 other point --

20 JUDGE KERINS: Where's the evidence of that?

21 MR. DUSTON: Well Dr. Muller indicates that sliders  
22 can be reconfigured in a variety of ways --

23 JUDGE KERINS: He doesn't give any specific examples  
24 though.

25 MR. DUSTON: Well he does suggest their size can be  
26 reduced, Your Honor, and that I'm not sure that he necessarily needs to

1 sketch a particular substitute for the sliders but the fact is the sliders can't be  
2 reduced in size. The point of the sliders is to provide a positional framework  
3 for the individual so that the individual stands up straight essentially, like  
4 there's no flexion axially or forward in their posture so that we, again, have  
5 that registration issue so that that person, when their image is taken in one  
6 time is taken pretty much the same posture the next time. That slider  
7 arrangement doesn't have to have any particular configuration as long as it  
8 serves to position the person in an upright posture, and I think the other thing  
9 to say about Voigt too, Your Honor, is Voigt is unconcerned about the fact  
10 that these skin areas, assuming that they are obscured by these sliders, Voigt  
11 is unconcerned about that fact and so it would not be necessary for a person  
12 of ordinary skill in the art to seek to prove beyond what Voigt itself in this  
13 particular respect seems to accept.

14 JUDGE KERINS: So on that point I understand your  
15 position about positioning a camera behind the individual, okay, so it can  
16 image the front and the back at the same time. Because Voigt -- it appears to  
17 be your position that Voigt doesn't really care about the size of the body,  
18 why do we have to have laterally spaced cameras?

19 MR. DUSTON: Well I'm not sure that Voigt --

20 JUDGE KERINS: Well, why would it have been  
21 obvious to have laterally spaced cameras? Why don't we just put a bank of  
22 two cameras in front and a bank of two cameras behind?

23 MR. DUSTON: So the answer to that, Your Honor, I  
24 think is that Voigt is concerned about improving both the quantity and  
25 quality of the skin image information that it obtains and to that point,  
26 vertically spaced cameras will insure more coverage, coverage that Voigt is

1 not yet capable of performing unless its vertical adjustable camera was  
2 moved down to catch the lower body. But the lateral spacing as I've  
3 indicated before, as Dr. Muller has testified, the lateral spacing improves  
4 upon the single camera by more effectively imaging areas of the body,  
5 particularly the front of the body where there is curved surfaces -- abdomen,  
6 breasts, pectorals and things of that kind -- that will be obscured from above  
7 or obscured from below or from side to side. If we can go to Hurley, for  
8 example.

9 JUDGE KERINS: Do we have any quantification of the  
10 improvement we get from using two banks of cameras laterally spaced or we  
11 can modify the Voigt (indiscernible)?

12 MR. DUSTON: Well I think the quantification, Your  
13 Honor, comes in a couple of forms. If we go to slide 31 we can see here a  
14 female figure. You can see that the curved surfaces, particularly in the front  
15 of the body, would present issues for a single camera that was head on in  
16 terms of capturing some of these areas and it's not necessary to capture the  
17 area that might be obscured by Voigt's sliders particularly if that slider has a  
18 minimal cross-section because there are still other areas on the sides of the  
19 body, and on the legs in particular, that would be captured by a camera that  
20 is slightly offset from this center line that faces the individual. But also the  
21 vertical cameras can capture areas that are hidden or in shadow with a single  
22 camera and its light sources because that camera would be pointed up and  
23 would have associated lighting that would illuminate those --

24 JUDGE KERINS: Mr. Duston, I'm not terribly interested  
25 in the two cameras on each tower. I'm referring more to --

26 MR. DUSTON: Understood, Your Honor.

1 JUDGE KERINS: -- why would we have two laterally  
2 spaced towers in front of the patient.

3 MR. DUSTON: If we can go to slide 40. Just for  
4 illustration purposes, Your Honor, this is a diagram from the Crampton  
5 reference, figure 9 and one of the other motivations that I suggested to Your  
6 Honor besides capturing curved surfaces avoiding the shadow that might be  
7 resulting from that or the obscuring that the curved surfaces might present to  
8 a single camera is also Voigt's acknowledgement and as Dr. Muller testified,  
9 the recognition that one of ordinary skill in the art would have that by  
10 multiplying cameras, not only vertically but laterally, you are able to focus  
11 those cameras on a smaller area of the body and as a result of focusing those  
12 cameras on a smaller area of the body, you gain greater resolution which  
13 Voigt is concerned with obtaining in terms of measuring the possibility that  
14 lesions on the body have changed in a minor way from one session to the  
15 other and therefore it might be reflective of the presence of melanoma.

16 So not only do you deal with the curvature issues and the  
17 shadowing issues, but the multiplication of cameras both vertically and  
18 horizontally is something that allows you to focus those cameras and their  
19 pixels on a smaller area and therefore derive more skin information that is  
20 useful for the cancer screening that you're trying to undertake  
21 (indiscernible.)

22 JUDGE KERINS: Thank you.

23 MR. DUSTON: Now if we can go to slide 29. I'm sorry,  
24 Your Honor, I didn't have a watch on when I stood up. Do you --

25 JUDGE KERINS: You have about six minutes before  
26 your reserved time.

1 MR. DUSTON: Okay, very good. Thank you, Your  
2 Honor. So this is an image of the Hurley reference. We've annotated it by  
3 running a center line down through what we've called the specified imaging  
4 position, in this case where the individual is standing to be imaged, that line  
5 bisects the two forward cameras. If we just focus on the area of this device  
6 forward of the individual who's standing in it, what we have are vertically  
7 spaced cameras that are horizontally spaced that are opposite sides of the  
8 center line that are imaging a person, and if you assume that this qualifies as  
9 a specified imaging position, then they're imaging a person in a specified  
10 imaging position and basically the Patent Owner acknowledges that such a  
11 configuration would allow for a precise measurement of the imaged features.  
12 Now we've had competing definitions of what the Wherein clause stands for  
13 but the Patent Owner has taken the broadest interpretation that a Wherein  
14 clause just simply suggests that as long as the system is capable of securing  
15 those measurements, then it meets that criteria and basically what the Patent  
16 Owner has said is if you have all these constituent elements -- fixed cameras,  
17 coordinates known, focal length, resolution, you know the predetermined  
18 distance to the specified imaging position -- with those factors one can  
19 precisely measure the individual.

20 So if we turn to the next slide 30, in Voigt essentially if  
21 we were to multiply that single camera on the front wall both vertically and  
22 horizontally and present four cameras there with the interspersed lighting  
23 sources, those camera arrangements would also be on opposite sides of the  
24 center line and would be facing an individual who's standing on a specified  
25 imaging position a predetermined distance from those cameras. This  
26 effectively is the invention that's described in both claim 1 and claim 51, in

1 fact it's the invention described in all the claims with the exception of claims  
2 6 and 7 which add a third and fourth array.

3 So simply even before we get to the subject of putting a  
4 camera array behind the individual, we have the claimed invention here as  
5 long as we replace that forward camera with the cameras that are reflected in  
6 Crampton or in Hurley for the reasons that Dr. Muller testified.

7 JUDGE KERINS: So are you saying that you don't even  
8 need to have another camera in the claim?

9 MR. DUSTON: Well, Your Honor, the rear camera as I  
10 mentioned, claims 6 and 7 specifically call for a third and fourth array. They  
11 called for this array, this one and two array -- if we go back to 29 -- so  
12 effectively what all the claims, except 6 and 7, call for an array that's  
13 basically this vertical arrangement of cameras 4 and 6 and this vertical  
14 arrangement of cameras 3 and 5 that are offset on opposite sides of the  
15 center line. What 6 and 7 add is yet a third and fourth array that are lateral.  
16 It's not specific as to exactly where laterally these arrays are, whether they're  
17 forward of the individual or behind the individual, but they're described as  
18 lateral to arrays 1 and 2. So 6 and 7 call for more arrays than are present in  
19 just the forward portion of this example.

20 This entire Hurley reference would add a third array and  
21 then as we've suggested, and as Dr. Muller has testified, it would be obvious  
22 to a person of ordinary skill in the art to essentially repeat the arrays that are  
23 in front of the individual, repeat those arrays behind the individual because  
24 for the same reasons those arrays would allow for the effective scanning of  
25 curved surfaces, they would allow for the full height of the individual, they  
26 would increase the resolution of the scan and frankly they would create a

1 situation where the resolution and the scale goes behind and in front of the  
2 individual would be commensurate which otherwise would result in a  
3 situation where you had basically a different image parameters for the back  
4 of the individual than you would have for the front of the individual.

5 JUDGE KERINS: So Hurley's main intended use is not  
6 necessary but you're saying if you do decide to bring Hurley's technology in  
7 Voigt you would want to replicate at the back what you have at the front?

8 MR. DUSTON: You would be motivated to do that with  
9 Voigt because Voigt has this hiccup where you have to turn the person  
10 around to get the coverage that Voigt is seeking to obtain and so Hurley, and  
11 Crampton for that matter, both talk about placing these cameras around the  
12 individual to not only improve the coverage head on but also to capture more  
13 of the body area in one setting without the need to reposition the individual.

14 Now there were a variety of arguments made by the  
15 Patent Owner about the combination effectively rendering Voigt inoperable  
16 for its intended purpose. All of those arguments depend upon pulling in  
17 elements of Hurley and pulling in elements of Crampton which are not  
18 necessary for the improvements that Dr. Muller is talking about in Voigt,  
19 and so for that reason under the In re Keller decision which Your Honors,  
20 yourselves identified, that's not legally an appropriate argument to be  
21 making.

22 JUDGE KERINS: Just so I can clarify here your position  
23 is to simply replicate the type of camera and the image capturing that Voigt  
24 already has with a plurality of towers, each with vertically spaced cameras.

25 MR. DUSTON: That's correct, Your Honor. The  
26 teachings that would be drawn from these references are teachings with

1 respect to the arrangement and relative positioning of cameras, not  
2 necessarily the specific lighting or the particular types of cameras per se.  
3 Voigt already has a camera that's effective to take the pictures that Voigt  
4 needs to take. It has lighting that's effective to provide for that imaging.  
5 Voigt would simply borrow the locations under the rationales that Dr.  
6 Muller has expressed, borrow those locations for use in the Voigt device,  
7 Your Honor.

8 JUDGE KERINS: Thank you, Mr. Duston. We are at  
9 the point where your 20 minutes of reserved rebuttal is here.

10 MR. DUSTON: I may be able to just pass. Let me just  
11 make sure that there isn't anything. I think we've bounced around a little bit  
12 and more or less covered a lot of the territory that we were talking about.  
13 Let me speak to close just for a moment. There's been a suggestion that the  
14 Crampton and Voigt combination would not be pursued by a person of  
15 ordinary skill in the art because, according to the Patent Owner, Crampton  
16 discredits such an arrangement because of its increased cost over simpler  
17 designs that it also discloses.

18 I think the key there, Your Honor, is that Melanoscan  
19 protests too much in what it says Crampton discredits because Crampton  
20 truly does not discredit these other arrangements. Far from it, it explicitly  
21 depicts a variety of multi-camera or configurations that it articulates have  
22 various advantages. The portion of the Crampton reference that Patent  
23 Owner refers to actually says, and this is a quote, it says, "It is possible that  
24 for a given required amount of image data it is possible for a given required  
25 amount of data," and then it goes on to say using one expensive high  
26 resolution camera "may be better." So there's no express discreditation of



1 the use of multiple cameras. What we have is a menu of options. Crampton  
2 provides us with a menu of options and depending upon your cost tolerance  
3 and your needs, and the advantages that a particular configuration have for  
4 the purposes that you're pursuing -- and in this case Voigt remember is  
5 pursuing a purpose to diagnose life threatening illnesses where melanoma  
6 and the small growth of those lesions might indicate a need for treatment --  
7 Voigt would prioritize the resolution, the coverage and the time saving  
8 elements that these multi-camera arrangements present over the minimal  
9 cost increase that adding some of these digital cameras might have to the  
10 enclosure.

11 I would also note as we said in our brief, Your Honor,  
12 that the Orthopedic Equipment case, 702 F.2d 1005, from the Federal Circuit  
13 states that the fact that an apparatus, a combination might not be done by a  
14 businessman for economic purposes is really irrelevant. The question is, is it  
15 a technological feasibility and whether or not aspects of the references  
16 would teach away to a person of ordinary skill in the art from a technical  
17 standpoint, not just that perhaps for today cameras might be more expensive  
18 but tomorrow they might not, that's not a basis upon which to issue a patent  
19 that would impede that future innovation.

20 Your Honor, I'll reserve the rest of my time.

21 JUDGE KERINS: All right. Thank you, Mr. Duston.

22 MR. DUSTON : Could I ask how much I have left?

23 JUDGE KERINS: You will have 16 minutes.

24 MR. DUSTON: Thank you, Your Honor.

25 MR. GIARRATANA: Good afternoon, Your Honors. I  
26 will pick up where counsel left off which is the combination of Voigt and

1 Crampton, and during the pre-hearing conference that we had on Friday,  
2 Your Honors indicated that you would be interested in hearing arguments  
3 with respect to the evidence in the record when it comes to comparing the  
4 competing advantages and disadvantages of adding extra cameras in the  
5 record and how they would be weighed and how a person of ordinary skill in  
6 the art would view them in light of that and whether there would be a  
7 resulting motivation to combine.

8 I think it's important here to recognize a couple of things.  
9 No. 1, with respect to Crampton. Crampton is unambiguous, that if you go  
10 from one camera to multiple cameras two things are going to happen. No. 1,  
11 you're going to have an increase in costs but No. 2, significantly, you're  
12 going to have a lower degree of reliability and I'll get to where that is in  
13 Crampton but we submit that is unambiguous, you will have a lower degree  
14 of reliability.

15 Now let's take a look at Voigt. Voigt is a melanoma  
16 screening system and technique. Voigt is unambiguous that his system  
17 needs to be reliable. He needs to be able to reliably image minute skin  
18 lesions. He needs to be able to image those minute skin lesions at different  
19 points in time and he needs to be able to quantify subtle dimensional  
20 differences between those skin lesions at different points in time and his  
21 system needs to be able to reliably do that. If the system does not reliably do  
22 that, it could be catastrophic because if you miss, if your system is unreliable  
23 and you miss a minor dimensional change that could be a melanoma.

24 So we submit, Your Honors, that the person of ordinary  
25 skill recognizing that there's no dispute that if he goes from one camera to  
26 multiple cameras, his system will become less reliable.

1 JUDGE KERINS: Less reliable in what respect?

2 MR. GIARRATANA: Well, Your Honor, Crampton  
3 simply says it will become less reliable. So presumably it's less reliable with  
4 respect to generating avatars because that's what Crampton's purpose is and  
5 if it's less reliable in generating avatars, we submit it's clearly going to be  
6 less reliable in capturing, comparing and measuring minute changes of skin  
7 lesions on the surface of the skin.

8 JUDGE KERINS: It's unreliable in the sense if you have  
9 two cameras, one might fail and the other might not or something like that  
10 and wouldn't you be able to figure that out in Voigt that one camera's all of a  
11 sudden out of commission and needs to be fixed?

12 MR. GIARRATANA: Well first, Your Honor, he doesn't  
13 say that. He simply says, this is in Crampton which is Exhibit -- for the  
14 record -- Exhibit 1006 and it's page 11 of the substitute sheet of the PCT  
15 application, and he talks about his embodiment where he's got fixed cameras  
16 and he says first you can start out with a large kiosk. He says in another  
17 embodiment a number of cameras are used to capture images of a person.  
18 He goes on to say that such a large kiosk 60 has high maintenance, transport,  
19 installation and space rental costs as well as a lower degree of reliability. So  
20 very generally, it's less reliable.

21 Okay. He then goes on to say that you can have a kiosk  
22 61 that has two cameras on two sides and he points out that you then only  
23 have two poses and it's smaller and then he goes on to say that you can have  
24 only one camera and that would require four poses, okay, which is perhaps a  
25 trade-off. But he goes on to explain that that this has the lowest manufacture  
26 transport, installation and space rental costs and significantly it has a higher

1 degree of reliability.

2                   So he's speaking about reliability in general, Your Honor,  
3 and I don't think it's fair to read into that any particular type of reliability  
4 other than his system for generating avatars would be less reliable and it  
5 could be a camera failing, but it could be other things, like it may not  
6 reliably process the image data. I mean that's a significant issue back in the  
7 early mid-1990s, being able to process image data in a reliable way and I  
8 think Voigt helps us get there because Voigt shows how extensively he  
9 needed to go through the imaging process data and it talks about how  
10 important it is to be reliable in that regard.

11                  So when the person of ordinary skill is looking at Voigt  
12 and Crampton and he's saying okay, I know if I go to multiple cameras I'm  
13 going to be less reliable, why would he ever take that path with respect to  
14 Voigt because if he's less reliable in Voigt that could be catastrophic.

15                  He goes on to explain that, at the bottom of the same  
16 page in Crampton, he goes on to explain that a further reduction in the size  
17 of the kiosk is achieved by using a set of cameras on each side arranged in a  
18 grid. There's an additional benefit in that this increases a total image  
19 information -- by the way he's talking about an increase in total image  
20 information, he's not talking about an increase in resolution as argued by  
21 Canfield if cameras of the same resolution are used. However any quality  
22 benefits may be reduced by the increases in cost and reliability. So he  
23 reminds us again, every time he talks about going from one camera to  
24 multiple cameras he reminds us that you're going to have a decrease in  
25 reliability. He then goes on to say that it is possible for a given required  
26 amount of image data from each side that using one expensive high

1 resolution camera may be better than several cheaper lower resolution  
2 cameras.

3                   So we submit that the person of ordinary skill, when  
4 looking at these references as a whole, that hypothetical person is going to  
5 conclude that No. 1, if I go to multiple cameras from one camera I'm going  
6 to have a lower degree of reliability and No. 2, Crampton itself tells me that  
7 I may be better off using a single high resolution camera which by the way is  
8 exactly what Voigt does and as we've all recognized Voigt is very clear that  
9 his single high resolution camera worked quite well. He had over a 95  
10 percent measurement accuracy with his single high resolution camera.

11                  JUDGE MOORE: Counsel, aren't these just typical  
12 design trade-offs that (indiscernible) when you have a system like this?

13                  MR. GIARRATANA: We submit, Your Honor --

14                  JUDGE MOORE: How does this rise to the level of  
15 teaching away, especially given that reliability is used in the general sense  
16 and seems to refer to the number of components and, you know, there's no  
17 indication here that I see that this system would be less reliable when it  
18 operates in detecting in melanoma?

19                  MR. GIARRATANA: Well, Your Honor, I submit that  
20 first of all with respect to the statement about a low degree of reliability, I  
21 submit that he's not particular and he's not pinning that to any one point and  
22 that the person of ordinary skill is going to recognize that reliability means  
23 reliability of the kiosk as a whole and the purpose of that kiosk is to generate  
24 avatars and that the person of ordinary skill would reasonably construe that  
25 as meaning reliability with respect to generating avatars.

26                  Now it may include reliability in, you know, components

1 failing, but it may also include like I said, Your Honor, the ability to  
2 generate avatars which both references clearly recognize that there's a lot of  
3 image processing that needs to go on here and there's a lot of technology that  
4 goes into that and when you add multiple cameras that the decrease in  
5 reliability could very well be attributed to that and the reference isn't specific  
6 about that. So this reference, I submit, needs to cut both ways. He just  
7 generally says that my system is going to have a lower degree of reliability if  
8 you go from one camera to multiple.

9 JUDGE KERINS: Mr. Giarratana?

10 MR. GIARRATANA: Yes, Your Honor.

11 JUDGE KERINS: If we just take the issue of modifying  
12 Voigt to have two cameras vertically spaced on the front tower, you've got  
13 about two banks laterally spaced on a bank in the back. Voigt as it  
14 specifically stands, it has a certain reliability in terms of imaging the trunk of  
15 a person.

16 MR. GIARRATANA: Yes.

17 JUDGE KERINS: It has a zero percent reliability of  
18 imaging the legs of a person because the field of view is not big enough. So  
19 if we went from one camera to two vertically spaced in front of the patient,  
20 wouldn't we have some increase in reliability in the fact that we're able to  
21 image at all the legs of a person?

22 MR. GIARRATANA: Well, we submit that the person  
23 of ordinary skill would not recognize that No. 1, because Crampton says that  
24 you will have a lower degree of reliability if you go from one to multiple  
25 cameras and Crampton also says that you may be better off with one high  
26 resolution camera which is what Voigt has. But then if we look at Voigt

1 itself, Voigt explains repeatedly how important it is for a system to be  
2 reliable and I'll briefly go through that in order to address your question,  
3 Your Honor, okay? So he starts out by explaining that on -- this is Voigt  
4 which is exhibit, for the record, which is Exhibit 1003 -- he explains right up  
5 front under Results he explains that skin lesion changes over time could be  
6 identified reliably within a few millimeters of diametric enlargement. Okay,  
7 and so he repeatedly through his disclosure talks about how important it is to  
8 have a reliable technique and method.

9                   He talks on page 3 of 9, which is page 982, he indicates  
10 that you need to detect multiple lesion border contours reliably in order to  
11 solve the reproducibility problem of the target registration area. He then  
12 again mentions down below, he says that his system allows patients with  
13 multiple skin lesions to be followed by quantitative video graphic image  
14 processing with more reliable reproducibility.

15                  JUDGE KIM: But counsel, if the cameras are fixed  
16 doesn't that make it more reliable because there's no variation, whereas if it's  
17 movable and you have to move it back to the same spot every time and  
18 there's room for error?

19                  MR. GIARRATANA: Well, first not according to  
20 Crampton. Crampton tells me that if I have more cameras, I'm less reliable.

21                  JUDGE KIM: Okay.

22                  MR. GIARRATANA: And there's --- I'm sorry.

23                  JUDGE KIM: Yes, I mean, okay. The reference says  
24 what it says. We've sort of argued that there's a plausible argument to be  
25 made that it's about general reliability, about failure of things, so can we  
26 discuss, you know, the actual issue is yes it says what it says, but it also has

1 to be read in context and so we're saying a context that could be read in is  
2 one of the things I just said that if it's fixed it's not going to move and so isn't  
3 that better?

4 MR. GIARRATANA: Isn't it better that it's not going to  
5 move?

6 JUDGE KIM: Yes.

7 MR. GIARRATANA: Well, in all candor, Your Honor,  
8 between Voigt and Crampton I don't know where that teaching is, that you're  
9 going to want to modify Voigt to include fixed cameras. There's no  
10 suggestion. I have to look at the references and I've got Crampton which  
11 tells me that if I add a camera it's going to become less reliable and one  
12 camera may be just as well. I could see through hindsight that someone can  
13 argue that oh, maybe if I have multiple fixed cameras as in the claimed  
14 invention that it might be more reliable in some way.

15 But Crampton doesn't say that, and Voigt quite frankly is  
16 very clear that he gets his reliability in a couple of ways. No. 1, he gets his  
17 reliability by virtue of having a single high resolution camera and No. 2, he  
18 gets his reliability by having a specific positioning framework, and that  
19 specific positioning framework is critical. So he explains, first of all, with  
20 respect to the high resolution camera he talks about -- well he indicates in  
21 several places but under the hardware where on page 92 he explains that he  
22 uses a high resolution video camera, okay, and then on page 983 he explains  
23 that he identifies the specific pixel configuration of his high resolution  
24 camera and he explains by virtue of having this high resolution pixel  
25 configuration he's able to get down to one milliliter per pixel. Again, very  
26 important for purposes of measuring these tiny skin lesions.



1                   Then on the bottom of page 983 and over the top of 984  
2 he explains that,

3                   "By processing the gray-level luminance gradients at the  
4 lesion boundaries, object areas could be calculated with an accuracy of 0.25-  
5 pixel area, equally 0.25 mm squared. Setting the binary threshold focus  
6 selects the target lesions for analysis for the expected critical lesion  
7 dimension that should be detected if changed."

8                   So his teachings are pretty clear that I need to have a high  
9 resolution camera because I need to be able to get down to the millimeter,  
10 sub millimeter imaging capability so that I can detect these subtle changes.

11                  Now, that's the start. Then he goes on to explain how  
12 critical his positioning framework is which we submit would prevent the  
13 combinations that have been proposed. Over on page 986 he explains that,

14                  "For comparison analysis reproducible registration settings also  
15 must be provided for the patient's position because overlaying images for  
16 comparison analysis regularly results in erroneous information because of  
17 nonlinear axial image distortion, registration reproducibility must be  
18 obtained differently."

19                  Okay. So registration reproducibility is key to his ability  
20 to identify, capture and measure subtle differences in any skin lesions. The  
21 way he achieves that registration reproducibility is by two things. He has his  
22 single high resolution camera which he's able to target right on to the back  
23 wall of his positioning framework and then what he effectively does is he  
24 boxes in the patient. He has a backing frame that, if we look on figure 1, we  
25 can see here that he's able to move his camera so that it's scanned with the  
26 very last -- the critical thing about his teaching is that he's focusing on

1 making sure that he can reproducibly image the same area of the skin at  
2 different periods of time, and in order for him to do that he's got to be able to  
3 register the image of point in time one with point in time two, et cetera, and  
4 the way that he does that is he's got this positioning framework where he has  
5 a back wall and he has lateral sliders and what's key here is he says this, and  
6 he says this several times. He says to avoid axial -- and this is on page 982  
7 just below fig. 2, he says,

8                                "To avoid axial and transversal spinal flexion and thus to  
9 provide reliable registration reproducibility the patient's standing position  
10 was fixed at the thoracic and iliac level by symmetrically fitting the lateral  
11 extent of the trunk shape into horizontally adjustable scale sliders of the  
12 position framework."

13                              Now, he repeats the importance of making sure there's no  
14 axial or transversal spinal flexion in order to get this accurate registration  
15 reproducibility. He repeats that on page 987 and this is where he talks in  
16 further detail about his registration reproducibility and how he achieves it.  
17 So at 987 he states about midway down the first column he states,

18                              "In the present study, reproducibility of image  
19 registration was in contrast provided by additionally using a specifically  
20 designed position framework for the patient's position. Consequently any  
21 axial or transversal spinal flexion was effectively prevented.

22                              Okay. So, first of all when we talk about the positioning  
23 framework, what is axial and transversal spinal flexion? What he needs to  
24 do is he needs to prevent axial spinal flexion which is rotating about the axis  
25 and he needs to prevent transversal spinal flexion which is rotating in the  
26 transverse plane back and forth. How does he do that? He's got a back wall

1 that he puts the patient's back up against and he's got lateral sliders that  
2 engage the sides. He boxes the patient in and he needs both because without  
3 that back wall you're going to have axial and transversal spinal flexion and  
4 you're going to kill his ability to have image reproducibility.

5 JUDGE KERINS: Mr. Giarratana, it never mentions the  
6 need for back wall specifically in Voigt, does it?

7 MR. GIARRATANA: I agree, Your Honor, but what it  
8 doesn't --

9 JUDGE KERINS: Do we have expert testimony to that  
10 effect?

11 MR. GIARRATANA: Well, what it does say right here  
12 is it says that you've got to prevent axial and spinal flexion. So we submit  
13 that it's simply common sense that if you don't have that back wall, you're  
14 not going to prevent axial and spinal flexion. If you have simply sliders on  
15 the side, it's not going to prevent the person from moving back and forth nor  
16 is it going to prevent the person rotating.

17 JUDGE KERINS: How do we even know that that's  
18 what he means by axial and transversal? I can see axial being up and down  
19 and transverse being side to side.

20 MR. GIARRATANA: Well, again we submit that this is  
21 something that's understood in the art, that you've got axial which is simply,  
22 you know, that's a term of defining a part of the lower spine and axial  
23 flexion is understood to be movement about that axis, and the transversal  
24 plane is well understood. The transversal plane is basically perpendicular to  
25 the axial plane. It's well understood, it's in dictionaries, et cetera, and if  
26 you're going to prevent transversal flexion, that's going to be moving back

1 and forth in the front and so I think it's simply common sense that if you're  
2 going to prevent those two types of flexion, the lateral sliders aren't enough.

3 JUDGE KERINS: Are not enough?

4 MR. GIARRATANA: Are not enough, and that the  
5 person of ordinary skill is not going to simply through hindsight just get rid  
6 of that wall. He explains here how critical that positioning framework is and  
7 first of all, Canfield doesn't really tell us how they're going to do it. They  
8 simply say well Dr. Muller says there's a bunch of ways you can do it and  
9 their brief says basically that, okay, but they did -- and I'm going to get to  
10 this in a minute -- they did change their principal rationale from the  
11 motivation to combine. Essentially they said that you've got the same  
12 rationales for Hurley and Crampton and the principal rationale was a person  
13 of ordinary skill would be motivated to combine to image the entire body.

14 Now I'll go through that, it's in the papers, and then when  
15 we pointed out how critical this positioning framework is and how critical it  
16 is to have those sliders there that they're going to necessarily include parts of  
17 the body and you can't get rid of them, and so you're not going to image the  
18 total body. That' when they shifted to a new rationale which is what they've  
19 argued today which we submit is not permissible. They've changed  
20 midstream, they cannot do that and it should be disregarded, and so their  
21 rationale on the record is that a person of ordinary skill would have been  
22 motivated to do this in order to image the entire body. So if you're going to  
23 combine either Crampton or Hurley with Voigt, the rationale has to be to  
24 image the entire body and so a person of ordinary skill is going to say wait a  
25 minute, if I do that I'm going to have to dismantle this positioning  
26 framework in some way. I'm not suggesting necessarily -- I think Your

1 Honor indicated is there a teaching away -- I'm not suggesting it has to go so  
2 far as a teaching away but I think the law is clear that you need to balance  
3 the disadvantages and the advantages and you need to weigh them and  
4 whether they do more than simply say it's feasible to do it, they have to  
5 actually suggest a motivation to combine not just make it feasible. Here we  
6 submit it's not even feasible because Voigt teaches us that that positioning  
7 framework is critical to being able to achieve his results.

8 So he goes on to explain. He says, this is on page 987 of  
9 Voigt,

10 "For image processing a set of specifically designed  
11 relational search algorithms was then applied. These were able to recognize  
12 and calculate the image positions of fixed external match points (given by  
13 the frameworks slider contours and thus being identical in subsequent  
14 images) relative to the topographic positions of reference-target lesions on  
15 the skin surface depicted within the image boundaries."

16 So the sliders are critical for two reasons. No. 1, they're  
17 critical in cooperating with the back wall to prevent the axial and transversal  
18 spinal flexion which he mentions at least two times, but No. 2, they're also  
19 critical to Voigt because that's how he's able to achieve registration  
20 reproducibility because they have to show up in the image so that when he  
21 images the same skin area in different points in time he's going to have fixed  
22 reference points.

23 So counsel indicated, well they're not shown to scale but  
24 we disagree. If we look at figure 2 -- for the record I was previously  
25 referring to figure 2 and I was wrong, that was figure 1, my apologies -- if  
26 we look at figure 2 we can see that the sliders are in the image and they are

1 purposely in the image because, as he explains on page 987 those sliders are  
2 necessary to provide fixed external match points and uses those fixed  
3 external match points to register -- basically it's a calibration device -- he  
4 uses them to register the images at a later point in time with the images of a  
5 former point in time and then he measures everything off of those sliders.

6 So this again informs the decision with respect to  
7 Canfield's real motivation to combine which was to image the entire body.  
8 The notion that you can get rid of these, you can make these smaller, you  
9 can do some unknown thing to them we submit is really not fair. The person  
10 of ordinary skill reading Voigt would recognize and understand that these  
11 sliders are important and these sliders have to show up in the image in order  
12 to be able to get the registration reproducibility which is critical to the  
13 reliability of Voigt's system to accurately measure and screen for subtle  
14 differences in the melanomas.

15 JUDGE MOORE: Counsel, why would a person of  
16 ordinary skill in the art who would have been aware of the other references  
17 that show us what was done without these types of sliders, why would such a  
18 person have been discouraged from pursuing alternative embodiments that  
19 don't have the sliders? The other references don't have sliders.

20 MR. GIARRATANA: When you say the other  
21 references, Your Honor, you're speaking about Hurley and Crampton --

22 JUDGE MOORE: Yes.

23 MR. GIARRATANA: -- I submit? Oh, yes, okay. So,  
24 I'm sorry, and so why would he have been discouraged from eliminating the  
25 sliders?

26 JUDGE MOORE: Right.

1 MR. GIARRATANA: Yes, okay.

2 JUDGE MOORE: And if you look specifically at Voigt  
3 it talks about the sliders and the advantages but the person of ordinary skill  
4 in the art would have been aware of the other references as well and those  
5 systems don't have sliders, so why would such a person not have explored  
6 embodiments without sliders?

7 MR. GIARRATANA: Because, Your Honor, I would  
8 suggest that at least for the following reason, No. 1, Hurley and Crampton  
9 are directed to much simpler imaging systems where they're simply  
10 generating avatars or silhouettes of the body where the criticality of being  
11 able to register images from one point in time to another and then measure  
12 subtle differences in millimeter sized skin lesions at one point in time or  
13 another simply do not exist in those references. So the person of ordinary  
14 skill's going to understand that the teachings of Hurley and Crampton are  
15 really dealing with a different type of system where you can accept certain  
16 trade-offs. In Hurley and Crampton's system it's not so important to have  
17 this extremely precise reliable imaging and measurement capability. They're  
18 simply generating --

19 JUDGE MOORE: Counselor.

20 MR. GIARRATANA: Sorry.

21 JUDGE MOORE: Sorry. Counselor, I understand that  
22 but your claims don't require millimeter sized accuracy or anything like that,  
23 they just generally talk about maladies that affect human tissue.

24 MR. GIARRATANA: That's correct, Your Honor, but  
25 we're not talking about whether the resulting combination meets the terms of  
26 the claimed invention, Your Honor. What we're talking about here is

1 whether there's a motivation to combine and Canfield --

2 JUDGE MOORE: Right. I understand the argument.

3 MR. GIARRATANA: Okay. All right. Well, I'm sorry

4 I meant to answer it, I didn't mean to --

5 JUDGE MOORE: No, you did. I realized what you  
6 were saying there so.

7 MR. GIARRATANA: Okay. All right. So the bottom  
8 line is they raised the same motivations to combine with respect to both  
9 Crampton and Hurley and for the reasons we've explained based on the  
10 teachings of Crampton where if you go from one camera to more cameras  
11 you're going to have a reduced degree of reliability to the teachings of Voigt  
12 where he explains how critical reliability is and he explains how critical his  
13 positioning framework is, the person of ordinary skill would not have been  
14 motivated to make that combination. We submit in fact would have been  
15 motivated against it because they would not have wanted a reduction in  
16 reliability, they would not have wanted to change or eliminate Voigt's  
17 positioning framework because if, again, if you reduce the degree of  
18 reliability of Voigt's ability to capture and measure these minute lesions it's  
19 catastrophic, it's a different ballgame than silhouettes and avatars, and so the  
20 person of ordinary skill is going to say wait a minute, I'm not going to accept  
21 a lower degree of reliability. I'm not going to accept changing that  
22 registration reproducibility. I'm going to accept the other trade-offs because  
23 ultimately I need to have a reliable accurate system.

24 Now, real briefly with respect to changes in position.  
25 With respect to Canfield's rationale for modifying Voigt in view of Hurley.  
26 Canfield initially indicated that the motive was to image the entire body and



1 that's abundantly clear in the petition. It was reflected in the Institution  
2 decision and we introduced arguments and evidence controverting that and  
3 then they changed their motivation. The motivation now is not to image the  
4 entire body but rather is to image a greater amount of surface area and that's  
5 the argument we heard today, that's the argument that's reflected in their  
6 demonstratives.

7                   They point, by the way, to statements by Dr. Muller but  
8 it's important to recognize that the statements that counsel identified in Dr.  
9 Muller's declaration do not appear in the petition and the rule specifically  
10 prohibited incorporating by reference, and so to the extent now they're trying  
11 to rely in something in Dr. Muller's declaration that was never in the petition  
12 we submit that's impermissible and that they can incorporate by reference.

13                   First, let's take a look at their change in rationale for  
14 modifying Voigt in view of Hurley. Here's their corrected petition. Paper  
15 No. 9 at page 30.

16                   "A POSA would have been motivated to modify Voigt to  
17 incorporate the multiple cameras of Hurley not only because of similarities  
18 between the two systems, but more importantly because of the obvious  
19 advantages of Hurley's multi-camera arrangement, including the ability to  
20 cover the entire body without repositioning."

21                   And then they reiterated the point below where they  
22 state,

23                   "Also because of the reduced time needed to scan a  
24 whole body."

25                   And then when we go to the next page they talk about  
26 modifying Voigt. Again Voigt and Hurley they say the disclosures in Voigt

1 and Hurley would have enabled a POSA to modify Voigt to provide multiple  
2 cameras behind, in front and to the sides of the person to be imaged, and that  
3 was their argument. Their argument was the motivation to combine here is  
4 to scan the entire body and therefore the person of ordinary skill would have  
5 put cameras behind, in front and to the side. Behind would require doing  
6 something with the back wall and the sliders of Voigt which we submit  
7 clearly the person of ordinary skill would not have done.

8                   This was recognized in the petition decision where this  
9 Board pointed out that the petition identified the following as examples of  
10 rationales. Rationale No. 1, the ability to cover the entire body without  
11 repositioning, No. 4, the reduced time needed to scan a whole body.

12                   In our response we pointed out, our response is paper No.  
13 23 at page 30, we pointed out that Canfield contends that a POSA would add  
14 more cameras to Voigt in order to cover the entire body without  
15 repositioning so we were not to attack what we were faced with which was a  
16 motivation to image the entire body and we explained that the horizontally  
17 adjustable scale sliders would prevent that, among other rationales. We  
18 presented evidence and arguments over that point, controverting that point.

19                   Canfield's reply, paper No. 33 and I'm on page 9,  
20 Canfield's reply did not controvert that evidence and arguments. They  
21 shifted gears. They now argue for the first time that a POSA seeking to  
22 capture a greater portion of the subject without requiring the subject to be  
23 repositioned would have been motivated to incorporate Hurley's concept of a  
24 plurality of cameras arranged about the subject. Such an arrangement would  
25 have been an obvious solution to obtaining greater photographic coverage  
26 without inconvenience to the subject or increase to image capture time. So

1 this is the first time that they've argued not until their reply that the  
2 motivation would have been obtaining greater photographic coverage, i.e.,  
3 less than the whole body. We submit that that's a change in the argument.  
4 It's impermissible and it should be disregarded. We pointed this out in our  
5 surreply paper No. 46 at page 7.

6 By the way, Canfield made the very same change in  
7 rationale in connection with the rationale for modifying Voigt and Hurley in  
8 view of Daanen with respect to claims 6 and 7 and we submit that that  
9 change in rationale should be disregarded there as well.

10 For the sake of time, I'm just to simply very quickly point  
11 out that paper No. 9, page 77, Canfield argued that a POSA seeking to image  
12 the entire body in a single pose would have a adopt -- there's a typo -- the  
13 camera configuration of the disclosed bitronic system in Voigt's enclosure.  
14 This arrangement of arrays would have been an obvious design choice to  
15 achieve total body coverage. That was what was in the corrected petition.

16 In our response, we pointed out again the defects in that  
17 argument with evidence and argument. Canfield did not controvert our  
18 evidence and argument. Instead on their reply Canfield argued at paper No.  
19 33, page 22,

20 "A POSA would understand that the use of multiple  
21 cameras as disclosed in Daanen would allow for the capture of additional  
22 surface area without repositioning even if some occlusion were to occur."

23 So now they're making a different argument. Okay, even  
24 if there is some occlusion, it still would have been obvious. We submit  
25 that's not permissible. They should have raised it in the petition, they did not  
26 do that.

1 JUDGE KERINS: You have about five minutes before  
2 you hit your 20 minutes rebuttal time.

3 MR. GIARRATANA: Got it. Thank, Your Honor. I  
4 think I'll be within that. So one of the other points that Your Honors asked  
5 us to address was whether there was a change in position on unpatentability  
6 over Hurley alone during the conference last week and we submit that there  
7 clearly was. Canfield initially argued in its petition for Inter Partes Review  
8 that Hurley, and significantly here, discloses that the location of the image  
9 position is specified. Hurley describes first placing a calibration object  
10 approximately where the subject will be standing. So, as Your Honors  
11 know, claim 1 requires that the enclosure define a specified imaging position  
12 for placing the person or portion thereof to be imaged and we submit that a  
13 specified imaging position is a specific position defined by the enclosure.

14 I won't repeat what was in the Board decision. Your  
15 Honors are aware of that. Well, let me repeat it briefly because I think it's  
16 important to put this in context. The Board in the Institution decision  
17 indicated, and I recognize this is in Institution decision, it's not on the full  
18 record but it's important for the context. At page 29 of the Institution  
19 decision the Board said,

20 "Where is specified imaging position defined by the  
21 enclosure, it would seem that a single initial calibration would be all that  
22 would have been required to assure correct coverage as well as making sure  
23 that the subject would be within the depth of focus of each of the sensor  
24 heads. Repeated use of a calibration object implies that various subjects will  
25 assume different positions within the enclosure."

26 The Board went on to point out that on the next page

1 which is page 30 of the Institution decision,

2 "Petitioner presents no evidence or argument that it  
3 would have been obvious to modify the Hurley enclosure such that it defines  
4 a specified imaging position."

5 In the Petitioner's reply, Petitioner argued for the first  
6 time it would have been obvious to a POSA -- and this I'm sorry is the  
7 Petitioner's reply at paper No. 33, page 19 -- the Petitioner argued for the  
8 first time it would have been obvious to a POSA to provide a visual marker  
9 of this location to insure that the subject positioned themselves at the precise  
10 location just calibrated. So we submit clearly that, and note that the Board  
11 in the Institution decision indicated there was no argument about whether it  
12 would have been obvious.

13 Canfield didn't say here oh, yes, we did make the  
14 argument, here's where it was. They just presented a new argument and it  
15 was an obviousness argument and this was the first time it was presented in  
16 the reply. We submit that's impermissible and should not be allowed. It  
17 should be disregarded. Additionally, Canfield did not controvert our  
18 evidence and arguments addressed in their original argument and therefore  
19 we submit we should prevail on this ground for that reason.

20 Now significantly here they also point to, on page 19, the  
21 contemporaneous patent filed by the Hurley inventors discloses that they  
22 used just such a footprint marking to identify the location where the  
23 individual should stand. Okay, so they're referring there to the additional  
24 new patent that they identified in their Motion to Submit Supplemental  
25 Evidence. We submit that that argument should be disregarded. No. 1, the  
26 Board has not granted that motion and that patent is not in evidence.

1 Secondly the Board should not grant that motion, should not allow that  
2 patent into evidence because clearly they're using it in order to present the  
3 new grounds for rejection. They're using it to buttress their new obviousness  
4 argument and to essentially try to fill in the gaps that were identified by the  
5 Institution decision and by the way, just as an aside, the patent is not  
6 contemporaneous. The utility application was filed more than a year after  
7 the Hurley publication, not necessary to this decision. The point is is that it's  
8 new evidence, it's a new grounds for rejection. There's no reason that this  
9 patent couldn't have been cited in the original petition. It's a patent that was  
10 filed by the authors of the Hurley article, easily find it.

11 One quick point before I reserve my rebuttal time.

12 Canfield's demonstrative slide No. 27 indicates their motivations today for  
13 combining Hurley which are the same motivations that they used to combine  
14 Crampton and I just submit that the Board look at it carefully and compare it  
15 carefully to what Canfield actually argued in its original petition.

16 The first motivation is not in the original petition.

17 Nowhere did they argue in their original petition that the motivation was the  
18 ability to cover the body without repositioning. They argued that it was the  
19 ability to cover and image the whole body, the total body, and now they're  
20 changing it. The avoidance of shadowing or shading. The reduced time to  
21 capture area. Captured curved surfaces of upper and lower body and  
22 efficient use of space. Briefly, those are not motivations that were in the  
23 original petition. They're either new motivations or they're rephrased  
24 motivations. We pointed this out in our briefs but I just want to bring it to  
25 the Board's attention that this needs to be reviewed carefully. You know,  
26 there's subtle changes in words that have important meanings and we argued

1 what they presented in their petition they can't be allowed to change it after  
2 we presented controverting evidence and arguments which we submit defeat  
3 their original motivations.

4 Thank you, Your Honors. Unless there's any additional  
5 questions I'll reserve my remaining time.

6 JUDGE KERINS: Thank you, Mr. Giarratana. It'll be  
7 around 18 minutes.

8 MR. GIARRATANA: Thank you.

9 MR. DUSTON: As I understand it I have about 16  
10 minutes of my time remaining?

11 JUDGE KERINS: Correct.

12 MR. DUSTON: So let's start with slide 27 where Mr.  
13 Giarratana left off. I submit to Your Honors if you look at these references  
14 you'll find all of these motivations referenced and furthermore I would  
15 submit if you would look particularly at page 30 it's made clear in the  
16 petition that the motivations include all of these, not that these are all -- the  
17 sole motivation was to image the entire body, but instead all of these are  
18 motivations that lead to various design changes that Dr. Muller has testified  
19 to, the lateral and vertical arrangements of lights and cameras, et cetera.

20 Now let's talk about the entire body for a moment. I  
21 think perhaps there's a misunderstanding here on the part of the Patent  
22 Owner. There is certainly a motivation, as we've suggested, to position  
23 cameras behind the individual as well as in front in order to prevent or avoid  
24 the repositioning. But Dr. Muller's testimony and the petition nowhere  
25 suggests that entire body means every single square inch of the individual, in  
26 fact the combination of Dr. Muller provides, the one he proposes,

1 specifically in his view will obscure -- because of the sliders -- will obscure  
2 possibly some area of the body and an area of the body that Voigt itself was  
3 not concerned about.

4                   What Patent Owner's argument amounts to, Your Honor,  
5 is that a person of ordinary skill in the art would not seek to improve Voigt  
6 to the extent that it was able to be improved unless it can be improved  
7 perfectly. Unless that person of ordinary skill in the art would refrain from  
8 any of the improvements that Dr. Muller describes, if it was impossible to  
9 image every square inch of the body and that just makes no sense. The  
10 perfect, Your Honor, will not be the enemy of the good in this particular  
11 instance and --

12                   JUDGE KERINS: So, Mr. Duston, the petition says  
13 including the ability to cover the entire body without repositioning and now  
14 you're telling me you don't have a reasonable expectation of success that that  
15 would happen.

16                   MR. DUSTON: No, Your Honor. What I'm saying is  
17 entire body is being misconstrued by the Patent Owner in this instance. If  
18 you look at the Daanen reference --

19                   JUDGE KERINS: And maybe by me as well.

20                   MR. DUSTON: Possibly, and I apologize, Your Honor.  
21 Let me see if I can clarify. If one were to look at the Daanen reference as an  
22 example, 1005 I believe it is, the Daanen reference is entitled "Whole Body  
23 Scanning Devices." Among the devices that Daanen has, for example, at  
24 page 114, Daanen says in this whole body scanning article,

25                   "In making reference to complete imaging of the human  
26 body," this is what Daanen's language, complete imaging of the human



1 body, "note that such imaging may be accomplished with as few as two  
2 imaging devices front and back."

3                   Among the other examples in the Daanen article are the  
4 system that is described as the techmath system which appears on page 115.  
5 This is in the article of Whole Body Scanners, but in describing the techmath  
6 system the article says that this system has two scanning heads, one for the  
7 front and one for the back. The sides of the body are not represented in the  
8 scan by this method.

9                   I think what is the misconception here is that entire and  
10 total body means every inch. What total or entire body means is a surround  
11 of the individual and if possible the height of the individual, the more than a  
12 forward view of the torso in other words but a surround of the body placing  
13 cameras around the body so they're repositioning for the imaging that you're  
14 trying to achieve of that body repositioning is not necessary and Dr. Muller  
15 has testified to an arrangement of cameras where the subject would not need  
16 to be repositioned and all the available skin image information could be  
17 obtained without repositioning that individual without moving the sliders to  
18 the extent that they're necessary for registration.

19                   So I think it's a mischaracterization, Your Honor, to  
20 suggest that when the words entire body or total body or full body are  
21 employed in the petition, I think it's a misnomer to suggest that a) that was  
22 the sole motivation that was suggested in the petition by Dr. Muller and, b)  
23 what that means is that if a small area is obscured by the sliders it doesn't  
24 achieve the purpose because Dr. Muller said that the design that he was  
25 proposing would achieve and meet the motivations that he was suggesting.

26                   Now there's been a lot of talk about eliminating the

1 sliders, and I just want to emphasize that to the extent that the sliders are  
2 deemed necessary Dr. Muller is not suggesting that those sliders be  
3 eliminated. We've heard discussion here of axial flexion. Frankly, if we  
4 want to talk about new arguments I would ask the Board to review the Patent  
5 Owner's response and their surreply. They had the last word in this case by  
6 filing the surreply and I can find nowhere this argument that was presented  
7 here today about axial flexion and its relationship to the back wall. We  
8 heard counsel talk about dictionaries and common sense. In response to  
9 Your Honor's question he admitted that there was no expert evidence in the  
10 record with respect to this theory of axial flexion and its relationship to back  
11 wall. That's an entirely new argument, Your Honor.

12                   Let's talk a bit about cost. The cost argument has really  
13 kind of come down, as I understand it, to a reliability argument and Judge  
14 Kim, as you mentioned, I think it's -- or as you observed -- I think this  
15 reliability argument is a different subject for Crampton than it is for Voigt.  
16 Voigt has a camera that reliably secures the level of resolution that is  
17 necessary. We are not proposing to replace Voigt's camera. In fact, if  
18 anything, we are improving the reliability of Voigt because Voigt has to  
19 move its camera and reposition it for each individual and the result of that is  
20 errors can be introduced into the positioning of the individual from one  
21 session to the next, such that this important registrability might be defeated  
22 by positioning the camera in a slightly different position and by replacing  
23 that camera, the fixed camera, we are actually making Voigt more reliable  
24 for the purposes for which it's directed.

25                   But Crampton's reliability is a very different thing. I  
26 mean as Your Honors have observed, there's no context to Crampton's

1 remarks about reliability. It's not specific about what kind of reliability it's  
2 talking about and I would suggest to Your Honors that -- I don't know, is this  
3 our -- up here, the ELMO, let me put Crampton on the ELMO here. So  
4 down here at the bottom of page 1 of Crampton, what Crampton is talking  
5 about is it's trying to create an avatar kiosk much like a passport photo kiosk  
6 that would be placed commonly in public places and it contrasts that  
7 specifically with types of scanning machines here, second paragraph from  
8 the bottom of page 1 of Exhibit 1006, scanning machines that have been  
9 designed for research or laboratory environments. They're not designed for  
10 dirty environments because they aren't dirty environments like a public  
11 space, they're clean and maintained and well supervised environments.  
12 They're not subject to being knocked. They're not subject to high degrees of  
13 wear and tear. They involve trained individuals in connection with these  
14 types of devices unlike Crampton.

15                   When we're talking about reliability they're talking about  
16 reliability in the sense that I'm going to be putting this kiosk out there in the  
17 public space unsupervised. It's going to be operated by untrained individuals  
18 and it's going to have to take a fair degree of knocking about and wear and  
19 tear. That's a different kind of reliability than what Voigt is talking about  
20 (indiscernible.)

21                   JUDGE KIM: I can sort of see their point that if you  
22 have multiple cameras there's still a positioning issue and so if you have a  
23 single camera you have to have this framework so that you reproduce the  
24 same position over and over again and if you have a fixed system with the  
25 way Crampton is you may not get that.

26                   MR. DUSTON: Well, I think you would, Your Honor. I

1 disagree respectfully. I think if you have the fixed cameras that Muller  
2 proposes, top and bottom, side to side, and they remain in the same position  
3 at all times relative to the sliders and then you put that person in between  
4 those sliders on the stand each time you take a picture of that individual  
5 those sliders whose positions were recorded and then replaced, those sliders  
6 are going to have the same relative position to those cameras each time.  
7 Now if the cameras are adjustable, they'd have to be readjusted I grant you  
8 just like the adjustable camera now in Voigt. But if those cameras have a  
9 fixed sector field, they will always have the same relationship to the sliders  
10 if the sliders are placed in that position. They will always have the same  
11 relationship to the individual standing on the stand and so there's much less  
12 opportunity in that situation for you to be out of whack than if you've got an  
13 adjustable camera that you have to insure gets back to the same position and  
14 through wear and tear, you know, the precision of that would decline over  
15 time and so you're going to end up with a situation that's going to be more  
16 difficult to maintain that registrability in an adjustable camera setting.

17 JUDGE KIM: But isn't that they're saying, that you said  
18 a lot of ifs so if you did this, if you did this, and if you did this then you end  
19 up with the same set-up, the same framework. I mean isn't that kind of like  
20 the quintessential hindsight like, you know, I'm just going to take a random  
21 part from something and I'm going to ignore the rest of it. I mean that's nice  
22 but, you know, invention is just taking parts and putting them together,  
23 right?

24 MR. DUSTON: I understand, Your Honor. But I think  
25 we're not making wholesale changes to Voigt, we're simply changing the  
26 imaging device that it uses.

1 JUDGE KIM: Well I understand and actually that's the  
2 simplest (indiscernible) but what they're saying is you can't just take that part  
3 of it, of Hurley or Crampton, you have to take more of it to make it work.

4 MR. DUSTON: I understand, but I think really their  
5 argument is that our combination doesn't take enough of Voigt. Their  
6 argument is it doesn't take enough of Voigt and our position is we take all of  
7 Voigt, we take the position that Voigt and its sliders can remain in the  
8 combination, it's not necessary to eliminate those and so the registration  
9 actually is maintained. In fact, it's improved as I suggested because the  
10 adjusted camera is now replaced with something which will always have a  
11 fixed relationship with those sliders and that improvement is motivated not  
12 only by the improvement in the registrability, the reliability of that and the  
13 avoidance of this adjustment but it's suggested and motivated by the  
14 enhancement to the other aspects of Voigt that Voigt is trying to achieve  
15 which is to achieve greater resolution, more image capture, more quantity  
16 and quality of data.

17 All of that is possible by adopting some of the teachings  
18 of these other references that also suggest the use of those cameras in those  
19 positions for the very purpose of greater image capturing the total body  
20 surround. It doesn't have to capture every inch though to be a system that  
21 arguably is a whole body scanning system because these whole body  
22 scanning systems, even the ones measured in Daanen don't necessarily  
23 capture every inch but they're still considered to be whole body scanning  
24 systems and this system, this proposed combination, is capturing all and  
25 more of the skin area that Voigt is concerned with. So I think, Your Honor,  
26 the suggestion that this is new argument is not correct. It's throughout the

1 petition, it's throughout the cited portions of Muller's declaration. Now the -  
2 -

3 JUDGE KERINS: Mr. Duston, I don't know if there's a  
4 better time to ask this question but it's pretty close to what you just  
5 discussed. Paragraph 46 of Exhibit 1036, which is the third declaration of  
6 Dr. Muller, begins talking about removing the back wall but not having  
7 removed the structure for the patient position framework. It then sort of  
8 transitions into something that you mentioned something Dr. Muller wasn't  
9 suggesting which is maybe don't even need to use the position framework of  
10 Voigt. It says "one of skill in the art would understand that a number of  
11 means were available to position a patient for purposes of imaging" and then  
12 mentions just use a head and foot positioning guidance or something of Dr.  
13 Muller's own work, using the x-ray cephalostat to position a patient. Where  
14 are we going with that?

15 MR. DUSTON: So I think Your Honor that that  
16 particular reference is not important to our discussion. All I think Dr. Muller  
17 was suggesting was something along the lines of what Judge Moore had  
18 asked about earlier which is are there other ways to insure that a person is  
19 properly positioned in these devices other than the use of positioning  
20 framework and Voigt in fact refers to a prior art article that performs that  
21 registration technique and reliably, in fact more reliably than even Voigt  
22 achieves, a 97 plus reliability over a 95 plus reliability. But nevertheless  
23 achieves it without the sliders but Muller is not suggesting that we're  
24 removing the sliders, he's only remarking that there are other options to  
25 insure registrability if the sliders were to be removed. But they can remain  
26 in his combination and provide this registrability function that's described in

1 Voigt.

2 JUDGE KERINS: Thank you.

3 MR. DUSTON: I'm getting close to my time here, Your  
4 Honors, so let me just double check my notes quickly. I would also note  
5 back to this issue of unreliability. There was much discussion about  
6 Crampton and the process that it takes to evaluate and calculate image data.  
7 I would note that Crampton is a 3D system so image processing is a different  
8 animal for Crampton. What it does with the photographic images it records  
9 from the lens of its camera is an added step that isn't necessary in Voigt.

10 JUDGE KERINS: I'd also be interested in hearing your  
11 position about Hurley alone and bringing in what you allege is a  
12 contemporaneous patent.

13 MR. DUSTON: So let me address that. I think we can  
14 probably move quickly past Hurley alone because as I understand now the  
15 Patent Owner's position, as expressed in its response and then more clearly  
16 in its surreply. Their position is a specified imaging position is the sole  
17 location within the device's enclosure where accurate imaging can occur.  
18 The device is essentially technically set up such that only one place within  
19 its enclosure can accurate imaging occur. I will concede that accurate  
20 imaging in the Hurley device can occur at more than one location but when  
21 we began this process it was unclear to us whether their position on specified  
22 imaging position was the one I just articulated or whether what they were  
23 suggesting was any place where the device marks a location where an  
24 individual is to stand to be imaged, like footprints or X marks the spot, it  
25 was unclear to us whether that was the position they were taking for  
26 specified imaging position. They've now clarified that and made clear that

1 visual marks on the ground or whatnot are not a specified imaging position  
2 unless they correspond to the only position within the enclosure where  
3 measurements can be recorded and I will grant you that Hurley has more  
4 than one location within its enclosure where those measurements can be  
5 taken.

6 JUDGE KERINS: All right. Thank you.

7 MR. DUSTON: Thank you, Your Honor.

8 MR. GIARRATANA: So, Your Honors, with respect to  
9 the last point I'm not sure where counsel is getting, you know, his argument  
10 that we changed our claim construction position with respect to the specified  
11 imaging position. We stand on the claim construction that are in the papers  
12 and our claim construction is not what counsel has argued, and I'm not sure  
13 where he gets that from. But we didn't make that argument, as far as I know,  
14 and didn't intend to.

15 So with respect to the motivation to combine and  
16 imaging the entire body and the whole body, Canfield in its original position  
17 indicated that, you know, unambiguously stated that the motivation and they  
18 used the words entire body and whole body, and these are at page 30 of their  
19 initial petition, and now they are good with the entire body and the whole  
20 body doesn't mean that. It means something less than that and it simply  
21 means a greater amount of surface area. You know, we submit that that  
22 doesn't hang together.

23 They try to point to Muller and Muller's declaration to try  
24 to support that argument but again we encourage Your Honors to take a look  
25 at their initial petition and what they state in their petition and if they can try  
26 to craft something out of Muller's declaration, I urge you to appreciate that



1 that's not in their initial petition and they're not allowed to incorporate by  
2 reference something from the Muller declaration in their original petition  
3 that they didn't put in there in the first place. It's 37 CFR 42, I don't  
4 remember exactly. If Your Honors are interested in the cite, I'll give it to  
5 you. Just need to dig it out.

6 JUDGE KIM: We're aware of this.

7 MR. GIARRATANA: Yes, I thought so. Okay. They  
8 say that the argument about registration reproducibility and the positioning  
9 framework and the need to fix the patient's positioning against the lateral  
10 sliders and back wall is new. It's not. We've been arguing that since the  
11 outset that Voigt, you know, his disclosure is directed to his positioning  
12 framework and his first figure is directed at the positioning framework. The  
13 positioning, and he points out -- and we've argued this in our papers -- that  
14 the positioning framework does two things that are critical. The positioning  
15 framework not only consists of the back wall and sliders, but it also consists  
16 of the moving camera on scale sliders that allows the camera to be moved  
17 depending upon the patient so that you can obtain that very precise  
18 reproducible registration between the cameras and the sliders and the patient,  
19 or the subject, and he explains this at page 982 where he says,

20 "To avoid axial and transversal spinal flexion and thus to  
21 provide reliable registration reproducibility, the patient's standing position  
22 was fixed at the thoracic iliac level by symmetrically fitting the lateral extent  
23 of the trunk shape in the horizontally adjustable scale sliders of the position  
24 framework."

25 He goes on to explain at the top, he says,

26 "In addition, the height of the video camera was adjusted

1 on a scaled camera slider and its framework position was recorded.  
2 Calibration of camera setting and position reproducibility was considered  
3 adequate if the image boundaries, the framework slider settings and the  
4 depicted anatomic match points were identical."

5 So we submit that the positioning framework isn't just  
6 this back wall of sliders. The positioning framework is the entire framework  
7 which includes the back wall sliders and the slidable camera, and they work  
8 together and the person of ordinary --

9 JUDGE MOORE: Counsel. I mean if you had fixed  
10 camera locations, isn't that even a better positioning framework? There's no  
11 error there, they're always in the same position.

12 MR. GIARRATANA: Your Honor, No. 1, I would  
13 suggest that I don't see that being taught in the references or suggested in the  
14 references and No. 2, you know, Voigt speaks specifically to registering the  
15 camera with those lateral sliders and so, you know, the struggle here is  
16 Canfield hasn't told us really how they're going to modify this thing and in a  
17 sense we're stabbing in the dark. We're using hindsight reconstruction, I  
18 would submit, to say well you can take, and by the way they're modifying  
19 Voigt as the primary reference in view of either Hurley or Crampton, not as  
20 counsel indicates taking from Voigt, and so they're modifying Voigt in some  
21 way. But they never really tell us exactly how they're modifying Voigt.

22 This is the best they do. This is paper No. 33, which is  
23 Petitioner's reply where they say,

24 "Here Dr. Muller provides expert testimony citing to  
25 prior art publications"

26 JUDGE MOORE: What page are you on, counselor?

1 MR. GIARRATANA: I'm sorry, page 12, Your Honor,  
2 on paper No. 33. They say,

3 "Here Dr. Muller provides expert testimony citing to  
4 prior art publications and his knowledge as a POSA of ordinary creativity to  
5 opine that a POSA would have many means to maintain Voigt's position  
6 framework or an equivalent."

7 Okay. So in all candor, Your Honor, I'm not sure  
8 specifically they're suggesting be done with Voigt's position framework. It's  
9 very conceptual and I would suggest that it really is hindsight reconstruction  
10 where they're attempting to use the claimed invention as a roadmap, pick  
11 and choose bits and pieces from the prior art and put them into Voigt in  
12 order to arrive at the claimed invention. But that there is no motivation to  
13 make whatever it is their particular resulting combination is for the reasons  
14 that we've indicated.

15 You know, Your Honor, if there were a teaching in the  
16 art to say that it would be more reliable or you would get better registration  
17 reproducibility to have two or plural fixed cameras instead of one sliding  
18 camera, then I think it would be a different argument. But in all candor, we  
19 don't see it. We don't see it in either Hurley or Crampton and what we do  
20 see is their motivation to combine is image the entire body, which we've  
21 defeated we believe.

22 Counsel argues that the reliability is a different thing for  
23 Crampton and Voigt and we agree that it is. We agree that in Crampton and  
24 Hurley reliability is a different thing than in Voigt. In Voigt reliability is  
25 crucial. In Crampton and Hurley, reliability is a trade-off. You can trade off  
26 reliability for a fewer number of poses or to image more surface area, but in

1 Voigt he's not going to trade off that reliability which he persistently  
2 describes in his paper as being very important to be able to accurately screen  
3 for and detect melanomas.

4 Counsel presents attorney argument regarding what  
5 reliability means in Crampton. We submit that it is just that, that there is no  
6 basis to limit the term reliability in Crampton to any particular type of  
7 reliability. We think it needs to be given the full extent of the term and  
8 certainly that's got to include the reliability of the system in generating  
9 avatars.

10 The very first sentence of Crampton states,

11 "This invention relates to a kiosk apparatus and method  
12 for capturing data on the surface of a person and creating an avatar of that  
13 person."

14 We submit when the person of ordinary skill in the reads  
15 that you're going to get a lower degree of reliability, that the person of  
16 ordinary skill is going to appreciate that it could include the reliability of  
17 being able to accurately generate avatars and it's not limited to what, by the  
18 way doesn't appear in the reference, maintenance issues or whether one  
19 camera breaks down versus another. It could include that but we submit that  
20 it can't be read that narrowly.

21 Counsel argues that -- a couple of bits and pieces --  
22 counsel argues that one of the motivations for combining Hurley and  
23 Crampton with Voigt would be to eliminate shadowing and this appears  
24 several times in their papers and I just want to point out that Voigt already  
25 says he eliminates shadowing. Voigt, which is Exhibit 1003 on page 983, he  
26 states in pertinent part that,

1 "Total in-depth object illumination was given special  
2 attention to prevent any artificial shadowing, possibly leading to incorrect  
3 gray level discrimination."

4 So Voigt already deals with artificial shadowing, so the  
5 notion that you needed to modify Voigt so that he could not have artificial  
6 shadowing we submit is a false one because Voigt's already taken care of the  
7 problem.

8 Counsel during rebuttal spent a fair amount of time  
9 referring to Daanen in connection with the combinations of Voigt with  
10 Hurley and Voigt with Crampton and we submit that that's impermissible.  
11 The combination of Voigt and Hurley and the combination of Voigt and  
12 Daanen is just that. They did not argue in their petition that they were also  
13 combining those references with Daanen so the arguments about what  
14 Daanen shows and how that might influence the motivation to combine  
15 Voigt with Hurley or Voigt with Crampton we submit must be disregarded  
16 because it's an impermissible argument that wasn't present in the original  
17 petition.

18 JUDGE KERINS: Counsel, it's your position that  
19 Daanen was not in the petition relied on to overcome what you allege to be  
20 deficiencies in the base combination of Voigt with Hurley or Voigt with  
21 Crampton?

22 MR. GIARRATANA: That's right, Your Honor, yes.  
23 They were limited to just those two -- each of those were two reference  
24 grounds and then the other base was Hurley alone. He didn't bring in  
25 Daanen. Canfield didn't bring in Daanen until they talked about claims.

26 JUDGE KERINS: You have maybe one or two minutes

1 left.

2 MR. GIARRATANA: Okay. Thanks, Your Honor.  
3 Thank you, Your Honors. I have nothing further unless there's any  
4 additional questions.

5 JUDGE KERINS: I actually do have one further  
6 question going back to Hurley and the claim term "specified imaging  
7 position."

8 MR. GIARRATANA: Yes.

9 JUDGE KERINS: Seeing counsel for Canfield has said  
10 based on what they believe to be the current position of Melanoscan that  
11 there's a specific point in an apparatus that is a specified imaging position  
12 and at least that's the way I understood their position and then you got up  
13 and, to an extent, disavowed that and asked us to rely on the claim  
14 constructions you've presented in your papers, and I look at the Patent  
15 Owner preliminary response and I don't get much more out of it than it says  
16 specified position for imaging and illustrated embodiments of the center  
17 points 108 and 308 of the disclosure. Is that not a specific point?

18 MR. GIARRATANA: Yes, Your Honor. Forgive me,  
19 I'm just trying to find our papers. So, yes, we indicated in paper No. 11 at  
20 page 25 that the ordinary and customary meaning of specified is set forth  
21 specifically or definitively and then we state accordingly the term means that  
22 the imaging position is a specific position, and then if we read that in the  
23 context of the patent, the enclosure must define -- well, I'll go by memory if  
24 I can -- the claim recites an enclosure defining a specified imaging position  
25 for placing the person or portion thereof for imaging. So it has to define a  
26 specific and definite position and we reiterate that in our response where we

1 say a specified imaging -- this is our response, is paper No. 23 at page 7 -- a  
2 specified imaging position means an imaging position that's defined by the  
3 closure specifically or definitively.

4 Now, Your Honor, I believe that what you stated is what  
5 I just stated. What counsel stated during the rebuttal period was different  
6 and so that's what I was contesting. It comes down to the specific words that  
7 were used but, and I'll check my notes quickly, but counsel indicated that he  
8 used words to the effect that it has to be the sole location where accurate  
9 imaging can occur.

10 JUDGE KERINS: I understand. But it is still going to  
11 be a sole location in your device.

12 MR. GIARRATANA: Yes. It has to be a specific and  
13 definitive position.

14 JUDGE KERINS: (Indiscernible.)

15 MR. GIARRATANA: Yes. It is a comprising claim,  
16 okay, but the point is it has to be a specific and definitive position which we  
17 submit Hurley doesn't have. There is no marking on the floor. The person  
18 stands where the person stands and they put the calibration device next to the  
19 person and that ends up being the position where they take the image and the  
20 calibration device is in the image. It has to be, otherwise they can't calibrate  
21 it.

22 JUDGE KERINS: All right. Thank you.

23 MR. GIARRATANA: Thank you.

24 JUDGE KERINS: Judge Moore, anything further?

25 JUDGE MOORE: Nothing further here, but I would like  
26 to compliment counsel on both sides. I thought this was very well argued.

1                   MR. DUSTON: Your Honors, if I could have just a  
2 moment to draw your attention to slide 55. I think there's some question  
3 about where we got this idea of what their position was on specified imaging  
4 position and I think it's laid out in slide 55 if Your Honors want to  
5 understand why we believe their position is that (indiscernible).

6                   JUDGE KERINS: Does it require explanation or should  
7 we just --

8                   MR. DUSTON: No. Melanoscan's expert, this quoted  
9 paragraph ends with "the subject could stand anywhere within the zone of  
10 correct coverage." That's why he says Hurley doesn't have a specified  
11 imaging position. In other words, there's not only one place where they can  
12 stand. That's where we devise this understanding of their new claim  
13 construction position, that's why we think in light of that Hurley does not  
14 have a single position where the person must stand. He can stand at a  
15 variety of positions and still be accurately imaged. I can't tell whether  
16 Plaintiff is bouncing between one or the other but this is where we got our  
17 understanding of their position on specified imaging position, Your Honors.

18                  JUDGE KERINS: All right. Thank you.

19                  MR. GIARRATANA: I'll simply -- look, Your Honor, I  
20 haven't had a chance to compare exactly what was in the declaration or what  
21 was in the papers, but I think what I will say is that we stand on our papers  
22 and I think our papers are clear. I just read to you I think the pertinent  
23 portions of our papers as to what we're submitting in our papers. We are not  
24 incorporating by reference something in the declaration. I'm not sure if  
25 what's in the declaration is inconsistent, but we stand on what's in our  
26 papers.



1 JUDGE KERINS: All right. Thank you.

2 MR. GIARRATANA: Thank you, Your Honors. We  
3 appreciate it.

4 JUDGE KERINS: Judge Moore, thank you for your  
5 comments. Judge Kim, anything?

6 JUDGE KIM: No.

7 JUDGE KERINS: Thank you both parties for appearing  
8 today. It was very, very informative and we also appreciate your flexibility  
9 in accommodating our last minute government holiday. We'll take the case  
10 under advisement.

11 MR. DUSTON: Thank you.

12 MR. GIARRATANA: Thank you.

13 JUDGE KERINS: Thank you.

14 (Whereupon, at 3:06 p.m., the oral hearing was concluded.)

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