IN THE UNITED STATES DISTRICT COURT

IN AND FOR THE DISTRICT OF DELAWARE

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LG ELECTRONICS U.S.A., INC., and LG ELECTRONICS, INC.,	:	Civil Action
Plaintiffs,	:	
v.	:	
WHIRLPOOL CORPORATION,	:	
Defendant.	:	08-234(GMS)
WHIRLPOOL CORPORATION, WHIRLPOOL PATENTS COMPANY, WHIRLPOOL MANUFACTURING CORPORATION, and MAYTAG CORPORATION,	:	
Counterclaim Plaintiffs,	:	
v.	:	
LG ELECTRONICS U.S.A., INC., LG ELECTRONICS, INC., and LG ELECTRONICS MONTERREY MEXICO, S.A., DE, CV,	:	
Counterclaim Defendants.	:	

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Wilmington, Delaware
Thursday, March 4, 2010
9:05 a.m.
Trial - Day Four

- - -

BEFORE: HONORABLE GREGORY M. SLEET, Chief Judge,
and a Jury

APPEARANCES:

RICHARD K. HERRMANN, ESQ.
Morris James
-and-
PATRICK J. COYNE, ESQ.,
ANAND K. SHARMA, ESQ.,
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Counsel for Defendant and Counterclaim Plaintiffs

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THE COURT: Good morning.

Let's bring in the jury, Ms. Walker.

(Jury enters courtroom at 9:33 a.m.)

THE COURT: Good morning, members of the jury. Please, take your seats.

...Robert Caligiuri, having been duly sworn as a witness, was examined and testified further as follows...

MR. COYNE: Your Honor, we left off yesterday, I was asking permission to publish the ice bin to the jury for the next set of questions I have.

THE COURT: Ms. Walker will assist you with that.

MR. COYNE: Thank you.

CROSS-EXAMINATION (continued)

BY MR. COYNE:

Q. **Doctor, we were talking about this particular ice bin yesterday as having a front-loading style of auger. Correct?**

A. **Yes. Relative to the position of the auger, relative to the door, yes.**

Q. **Okay. Then that front-loading auger pushes the ice from the front of the ice bin through that triangular opening in the intermediate wall into the ice-crushing region in the back of the ice bin. Right?**

A. **The auger moves the ice through that little hole**

there, and out the bottom opening, yes.

Q. In your testimony you referred to that in spite of the fact that it's a front-loading and pushes the ice horizontally from front to back, you are saying that is an upper and a lower bin. Correct?

A. No, I don't think so. I think I pointed out what the upper and lower bin was.

Q. Sir, what you identified as the upper and the lower bin is all the front ice storage portion of the bin. Correct?

A. The upper part of the bin is basically the transparent part you can see there and the lower part is the remainder of the storage bin.

Q. Do you have the claims up there still for the patent?

THE COURT: Do you want to tell him where he might find them?

MR. COYNE: Yes, Your Honor.

BY MR. COYNE:

Q. PTX-9, sir, in your cross binder in front of you.

A. PTX-9?

THE COURT: Ms. Walker, why don't you put the bin over here.

BY MR. COYNE:

Q. Go down to Claim 1, please.

A. I don't have that in the written version.

Q. **We have it up on the screen, sir.**

As we have talked about earlier during the case, the claims define what we are interested in. Right?

A. **Yeah. The claims determine whether or not there is infringement, yes.**

Q. **Okay. And that lower ice bin portion in the claim, do you see the section of the claim where it talks about on Claim 8, if we go to Claim 8, please, the next column, Mr. Brooks, Column 13, starting around line 35, it talks about the lower ice bin defining an ice-crushing region. Do you see that?**

A. **Yes, I see that.**

Q. **So the lower ice bin isn't the bottom part behind the white plastic-lined storage piece. It's that little room in the back where the ice-crushing blades are. Right?**

A. **Well, I think it says the lower ice bin member defining an ice-crushing region. And I don't think it is limited to the ice-crushing region.**

Q. **I understand, sir. But the portion the Court has construed as crushing region. Right?**

A. **Yes.**

Q. **Do you have that claim construction in front of you still?**

A. **Yes.**

Q. **Would you read it for me?**

A. **The term "ice-crushing region" is construed to me the area defined by the ice storage bin in which the ice pieces can be crushed.**

Q. **And the area defined by the ice storage bin in which the ice pieces are crushed is the little piece in the back where the ice-crushing blades are. Correct?**

A. **The portion of the storage bin in which the ice-crushing region is, that small area.**

Q. **In the back that is enclosed in the white plastic where the steel blades are. Right?**

A. **In the back of what?**

Q. **In the back of the ice storage bin.**

THE WITNESS: Can I pick this up?

THE COURT: Sure.

THE WITNESS: The ice-crushing region, as you can see, if you look through the bottom opening, is part of what I define to be the lower bin member here, yes.

BY MR. COYNE:

Q. **You are defining it as the lower bin member, but the claim is defining the lower bin member as defining the ice-crushing region. Right?**

A. **Well, I think you are interpreting the word "defining" as limited to. And I would use the word "defining" as including.**

Q. **I understand, sir. Even though the auger moves the**

ice pieces from front to back horizontally, you say that meets Claim 8 for the upper and lower. Right?

A. **I think the auger moves the ice from the ice storage area through the bottom opening, yes.**

Q. **Sir, I am going to go back --**

MR. COYNE: Your Honor, may I approach the units, again?

THE COURT: You may, sir.

BY MR. COYNE:

Q. **Sir, DPX-22, I am going to put on the Elmo for a second, can you see the portion that starts at line 15, "So to access the access opening"...**

Do you see that portion?

A. **Yes, I do.**

Q. **Sir, I just want to make sure we are starting from the same --**

THE COURT: What is this on the Elmo?

MR. COYNE: This is the transcript from yesterday. I want to use it as a reference point.

THE COURT: You might want to identify what we are looking at and make sure the other side understands.

BY MR. COYNE:

Q. **I have put up on the Elmo Dr. Caligiuri's testimony from yesterday. I want to go back to the units and try to be a little more efficient about the questions I was asking**

yesterday about the French-door. We were trying to define the access opening.

THE COURT: Before you display something like that to the jury, one, seek the Court's permission. No. 2, make sure that the other side is aware of what you are doing.

Mr. Spears?

MR. SPEARS: I don't have a problem with him showing yesterday's testimony.

THE COURT: Have you seen it?

MR. SPEARS: I would like a copy. I am generally familiar with it.

THE COURT: I didn't know whether you had memorized yesterday's testimony or not.

MR. SPEARS: I am afraid my memory is not that good, Your Honor.

THE COURT: Why don't you take a moment and take a look.

MR. COYNE: Page 607, starting at line 15: "I am trying to find any definition of the access opening" --

THE COURT: I have no problem with what you are doing. It's the way you are doing it. And wanting to be a little more circumspect about it.

BY MR. COYNE:

Q. **Page 607, the sentence that begins on line 15, "The**

access opening."

MR. COYNE: Your Honor, may I publish that?

THE COURT: You may publish that, yes.

MR. COYNE: May I approach the units to ask my questions?

THE COURT: Yes.

BY MR. COYNE:

Q. **Dr. Caligiuri, we were talking yesterday about the access opening and you said, "To access the access opening, not only do you have to open this bigger door" -- that is the one I just opened, right? The left-hand side of the refrigerator is the French?**

THE COURT: You can go down there if you need to see it.

MR. SPEARS: May I approach, Your Honor?

THE COURT: Yes.

(Witness steps down from stand.)

BY MR. COYNE:

Q. **I am trying to go back to the access opening, what you had said yesterday is: "So to access the access opening, not only do you have to open this bigger door"... That is this left-hand refrigerator door to the upper refrigerator portion. Right?**

A. **Yes, that's the left-hand door of the French-door unit, yes, sir.**

Q. **But you have to open up the little door, smaller door, to access this upper freezer compartment. Correct? That's the little door that my hand is on now, the little door to the upper freezer compartment. Right?**

A. **That's correct.**

Q. **Then you say, "With these two doors open, you get to the access opening, and this is the area I marked with my finger." Where I have put the green tape is the area you indicated with your finger yesterday. Correct?**

A. **That's correct.**

Q. **So this is the access opening, this surface, where the little door to the upper freezer compartment mounts?**

A. **Yeah. It's the surface on which the gasket on the small upper freezer compartment door rests on, yes.**

Q. **Let me put the Elmo on, then, if I may, Mr. Brooks. The rest of my questions have to do with that.**

In your view, sir, we talked further about this, and you said that the closure member to the access opening is the combination of both this little upper freezer door that you referred to and the left-hand door of the refrigerator compartment. Correct?

A. **That's correct.**

Q. **So the closure member is both. Right?**

A. **That's correct.**

Q. **And the ice room is what you call this freezer**

compartment in here where the ice-maker unit is located. Correct?

A. **The ice maker and the ice storage bin, yes.**

Q. **You call that a freezer compartment because it's kept at a below-freezing temperature. Right?**

A. **That's correct.**

Q. **And the closure member we have talked about, and the ice storage bin motor, we removed it, but the motor is right here. This is the drive mechanism connected to the motor where my hand is now, the little pinion back here. Right?**

A. **That's correct.**

Q. **And we have taken the bin out just to make this more visible.**

Mr. Brooks, can we get Claim 1 back up?

Claim 1, you see the ice storage bin -- do you see the term element and ice storage bin? Let's back up.

We have agreed this is a refrigerator. You testified about this yesterday. Right?

A. **Yes, sir.**

Q. **So we have got all of the elements. Let's focus on the ice storage bin. There is no issue with respect to the first elements above that. Right? In your view, they are all present?**

A. **Yes.**

Q. **So the ice storage bin mounted to the closure member.**

Correct?

A. **Yes.**

Q. **And you see the one below it, a motor mounted on the closure member. Correct?**

A. **That's correct.**

Q. **Mr. Brooks, can you highlight that, "an ice storage bin mounted to the closure member."**

Now, the ice storage bin, sir, when it is put in this ice room, is in this area and it's mounted to the inside portion of the door, the outer door of the refrigerator. Right?

A. **When the ice storage bin is in place, it is sitting on a shelf that's part of the freezer compartment that's mounted to the closure member, yes.**

Q. **And the motor is on the inside of what you call the freezer compartment that's on the outer door of the refrigerator. Correct?**

A. **Yes. The motor you can't see. It's behind that plastic part. And it's mounted to the freezer compartment on the closure member.**

Q. **Even though you have defined the closure member to be both, the little inner door to the upper freezer compartment and the bigger outer door to the refrigerator, nothing is mounted on the little inner door to the upper freezer compartment. Correct?**

A. **That's correct.**

Q. **Thank you, sir.**

THE COURT: Dr. Caligiuri, I think you can resume the stand.

THE WITNESS: Yes, Your Honor.

(Witness resumes stand.)

BY MR. COYNE:

Q. **Mr. Brooks, can you please put up PDX-113?**

So in terms of the claim chart that we were looking at yesterday with Mr. Spears, you agree that there is a check next to "refrigerator," the first three boxes, right? So the access opening was the portion we marked with tape. Correct?

A. **Well, my name is spelled wrong.**

Q. **Doctor, I am sorry, that is my error. I have known you now for several months. I know better than that, and I apologize. I am afraid the lateness of the hour got to me.**

A. **If you were the mayor of Pittsburgh, that is how you would have spelled the name.**

Q. **I apologize, sir. I am sorry. I will make sure I correct it in any future publications of this document.**

We can at least agree, getting back to the claim chart, that the access opening is the portion we marked, we marked it in green tape. Right?

A. **Yes, sir.**

Q. **And there is a refrigerator, so we can put a checkmark there, Mr. Brooks.**

The ice maker is disposed within the freezer compartment for forming ice pieces. You said that yesterday. Right?

A. **Yes, sir.**

Q. **Now we get down to the ice storage bin. You have defined the closure member as both the little door to the upper freezer compartment, in your view, and the larger outer door to the refrigerator. Right?**

A. **That's correct.**

Q. **And the ice storage bin is mounted only on the outer door to the refrigerator and it's not mounted on the little inner upper freezer door. Correct?**

A. **That's correct.**

Q. **Okay. With respect to the motor, again, the closure member is both, and the motor is mounted on the refrigerator door and is not mounted on the little inner upper freezer door. Right?**

A. **That's correct.**

Q. **And in your view, there is an auger, and upon energization of the motor, the auger moves the ice pieces. Right?**

A. **Yes, the auger moves the ice pieces through the bottom opening, yes.**

Q. **Thank you, sir.**

Sir, I would like to get back to the copying that we were talking about yesterday, that you were talking about.

One of the other things you mentioned was the shaft and the auger, correct?

A. **In the context of what?**

Q. **We were talking about the ice bin in the LG unit, and you were identifying for the jury the auger and the shaft. Do you remember that testimony?**

A. **Oh, yes.**

Q. **And in the Whirlpool '130 patent, the only disclosure of an auger and a shaft is in a vertical orientation. Correct?**

A. **In the preferred embodiment, yes.**

Q. **In fact, in the only embodiments that are disclosed in the specification, they are all vertical augers. Right?**

A. **Yes, that's correct.**

Q. **And there is --**

A. **In the specification, yes, that's correct.**

Q. **And there is no disclosure of a horizontal auger or a front-loading auger, right?**

A. **In the specification, but, of course, the claims that we are talking about here are not limited to that.**

Q. **Sir, let's go next to, you had talked about the patent**

drawings from the '130 patent. If we go to DX-16, Mr. Brooks, please.

This was one of the reports you were looking at with Mr. Spears yesterday, DX-16. Do you remember that testimony?

A. **I remember the document, yes.**

Q. **And you had indicated that you were concerned about this because of the similarities between the drawing. Could we go down a few pages?**

This drawing here. Right?

A. **Yes. I remember that drawing, yes.**

Q. **And you had also indicated that with respect to the Kim patent, the '701 patent, which we will get to in a minute, that you were concerned about the similarities with the drawing. Correct?**

A. **Well, I think what I pointed out was that drawing there, that left-hand drawing, has a configuration for what they call a bank, which is the storage bin, et cetera, which is very similar to the drawing in the '130 patent. And I just was concluding from that that it appears that at the time this document was created, LG had, in fact, seen the '130 patent. That's all I am drawing from that.**

Q. **Right. Because the patent had been issued at that point. Right?**

A. **That's correct.**

Q. **And just as we saw in the administrative office video, it was available for public inspection at that point, correct?**

A. **Absolutely.**

Q. **You are not saying that it was an act of infringement to include a patent drawing in any of their internal documents, are you?**

A. **No, not at all.**

Q. **In fact, that's why the Patent Office publishes these patents, so that members of the public can have access to the information and other people can learn from patents that are issued, right?**

A. **Yes, absolutely. This is only to show that at that point in time LG was in fact aware of this patent and aware of the technology that Whirlpool had patented.**

Q. **Thank you, sir.**

Let's go, then, to PTX-527, please, Mr. Brooks. That's the '701 patent.

This is the '701 patent you were referring to yesterday in your testimony. Correct?

A. **Yes, that's correct.**

Q. **So you are not implying that LG is passing off the images that are similar, in your view, to Whirlpool's '130 patent as its own work, are you?**

A. **Well, I don't know why LG would have put that very**

similar image in there. This document actually is a Korean application dating from December 2003. It's only, again, indicating, based on the similarity of the sketching here, and in the drawing that's in the '130 patent, that they were clearly aware of the patent at that point in time as well.

Q. Sir, you are aware, aren't you, that one of the reasons the Patent Office publishes patents is that members of the public can have access to prior inventions and use those inventions to try to make a new and different invention -- build a better mousetrap?

THE COURT: Didn't you just go over that with him?

MR. COYNE: Yes, Your Honor. I will move on.

BY MR. COYNE:

Q. Can we go to Column 1, please? Can you look at line 10, please?

Sir, could one of the reasons be that LG is describing here at lines 10 through 15 that what it's talking about is making an improvement on the '130 patent?

A. Well, yes, we can read that, and they are talking about a dispenser without opening a refrigerator door. I think they are talking about what the current technology is.

I guess my thought is, generally, the patents I have seen and reviewed, when you talk about the prior art, you don't put the prior art, necessarily, into the images

that are representing your invention. You talked about the prior art and the basis for it and the reasons for why you invented this patent, but you don't put prior art into what you are talking about, thinking about inventing.

I guess that's what my concern is here.

Q. Let's go through this patent, then.

Mr. Brooks, can we bring up PTX-9 and Figure 3 from the '701 patent side-by-side, please? PTX-9 is the '130 patent. Thank you very much.

Sir, what you were testifying about yesterday is what was interesting to you was the similarities between these two designs, the '130 patent being on the right and Mr. Kim's '701 patent being on the left. Correct?

A. That's correct.

Q. You didn't tell the jury about any of the differences, did you?

A. I believe I did.

Q. Well, one of them is that there is a new ice maker on the door with respect to Mr. Kim's patent. Correct? The ice maker is in this location?

A. Yes, it is. And I did point that out yesterday, yes.

Q. Whereas in Whirlpool's it's in this location, mounted on the top of the cabinet. Right?

A. Yes, the embodiment in the '130 patent has the ice maker located above the storage bin, mounted to the very

front top of the freezer compartment.
Q. And some of the other differences are there is a new water supply line, correct?
A. Yes. I pointed out the water filter. I don't believe I pointed out that waterline.
Q. Well then, there is a water filter as well, right?
A. Yes, and I pointed that out yesterday.
Q. And there is an access door for servicing the water filter and mechanical components, correct?
A. That's correct.
Q. And there is various connections and chambers for the connections through the hinge and the door and the connections for the supply to the dispenser and to the ice maker, correct?
A. Yes, that's correct.
Q. And there is new filter 71, new filter 70, new service door 72 we indicated, a valve 75. Do you see that portion?
A. Yes. Those are all components that you would need to add if you are adding a water supply into the same system as your ice storage, yes.
Q. Well, sir, can we at least agree that the invention that Mr. Kim made as an improvement on the '130 patent was different now that it merited patent protection?
A. I don't think I ever said that what Mr. Kim filed wasn't worthy of patent protection. I was just pointing out

the definite similarities between the ice storage and delivery system between the two.

Q. **Was it fair for you to tell the jury about the similarities you perceived without pointing out the differences between the two inventions?**

A. **Pointed out some of the differences. No, I didn't point out all of them.**

Q. **I would like to move on, Your Honor, to DTX-335.**

Mr. Brooks, could you please bring that up? Can we go back to the page that you had indicated that dispute is expected?

Sir, do you know what this document is that you were talking about with Mr. Spears yesterday?

A. **It was an internal LG development document that was provided to me.**

Q. **Was it the draft or the final?**

A. **I don't know.**

Q. **Were you present when Dr. Lee testified in December of 2008 that the version that you and Mr. Spears talked about yesterday was, in fact, a draft and is not the final version of the Bics final project completion report?**

A. **Well, you know, I don't recall that.**

Q. **Do you recall testifying previously that you did not even know which was the final or draft versions of the Bics final project completion report?**

A. **I don't know what that document is, whether it's draft or final.**

Q. **Have you ever looked at the final?**

A. **I don't know. I looked at what I was presented with, and the document clearly says what it says, is what I was presented with.**

Q. **By Whirlpool's lawyers?**

A. **Those documents came to me through Whirlpool's lawyers, yes.**

Q. **Have you looked at DX-770? Mr. Brooks, could you bring that up, please?**

Is it your testimony that you have never heard Dr. Lee testify that what you talked with Mr. Spears about yesterday was a draft?

A. **I just don't recall that.**

Q. **If we look at the final completion report, can we go down to page 20?**

Sir, do you see Section 4, "Self-Evaluation and Thoughts"? Do you see that?

A. **I do.**

Q. **And if we go down to the third -- I am sorry, the second bullet point, it specifically states in the final project completion report: "We were successful in avoiding existing Whirlpool's patent layer and bank area and by forming a new patented layer, we made other companies harder**

to get into this area."

Did I read that correctly?

A. **You did.**

Q. **If we go to the next section, "At first, we thought Whirlpool's patented layer seemed too solid and strong, and also we thought that since there were many technical problems associated with installing ice maker on the door, it probably was impossible to do so, but we are now glad that we came this far with our leader's positive leadership working with our creative coworkers, and we will do our best again in the future to make great strides in LG refrigerator's history."**

Did I read that correctly?

A. **Yes, you did. A lot of patting yourself on the back here.**

Q. **Well, sir, you didn't point out those portions of the final project completion report to the jury yesterday, did you?**

A. **No, because these are the opinions of LG as to whether they successfully avoided designing around the patent. And I don't agree with that.**

Q. **I understand you don't agree. My question is really: Is it fair for you to tell the jury that LG was copying when you walked through this litany of documents yesterday showing the substantial efforts to avoid the patent and you**

failed to --

THE COURT: If you want to make an argument at the appropriate time to the jury, you can do that, Mr. Coyne, but not this way.

MR. COYNE: I will move on, Your Honor.

BY MR. COYNE:

Q. **Can we go to the '601 patent now, sir? Mr. Spears asked you yesterday -- let me back up a step.**

You had testified yesterday that the basis for your opinion was -- in part was the testing of the plaques. Correct?

A. **The mechanical testing of the samples of plaque liners I removed from the LG refrigerators, yes.**

Q. **And yesterday you identified I think it was five separate things. The examination of physical units was one of them. Right?**

A. **Yes.**

Q. **The prosecution history, correct?**

A. **There were a number of things that I looked at as I incorporated into my infringement analysis, yes.**

Q. **Claim construction?**

A. **Yes.**

Q. **Testing?**

A. **Yes.**

Q. **And finite element analysis?**

A. **Yes.**

Q. **Yet when you reached your opinions initially and provided your initial report, you identified only visual inspection and photographs as a basis for your opinions. Correct?**

A. **Well, at that time I also had mechanical testing.**

Q. **But you didn't identify any mechanical testing as the basis for your opinions. Correct?**

A. **Well, I may not have mentioned that in my deposition.**

Q. **Sir, Mr. Spears asked you yesterday whether you have an opinion whether the plaques in LG's accused products prevent bowing, and you answered that they reduce bowing, didn't you?**

A. **Yes, I did.**

Q. **You measured the bowing of the walls in LG's refrigerators, your company did. Correct?**

A. **That's correct. We measured the bowing in a side-by-side and French-door, yes.**

Q. **Mr. Brooks, can we bring up PDX-74?**

When you measured the bowing of the walls, you found that they bowed. Correct?

A. **They do.**

Q. **If we bring up PDX-75. This is another example of testing that you did, and this also showed that the walls bow. Correct?**

A. **It certainly does.**

Q. **The plaques did not prevent bowing, did they, sir?**

A. **No, they don't. They don't prevent bowing in the sense of the word prevent, meaning absolutely, completely eliminating everything. I think that there are several interpretations of "prevent." "Prevent" could mean absolutely nothing ever, zero. Or it can mean hinder, prevent, to minimize, to reduce. Prevent like, for example, there is a lot of publications you see around about get vaccinated to help prevent the spread of the flu. I don't think if you as an individual go get vaccinated you have prevented the flu. I think you need to be careful how you interpret that word "prevent."**

The word "prevent" can mean make lower. And I think that is what is happening in plaques in refrigerator cabinets. Plus, reasonable engineers know that you can't completely prevent bowing of something because there is no such thing as a perfectly inelastic material.

Q. **So it helps prevent, in your view?**

A. **It helps prevent bowing, yes.**

Q. **Sir, if you were taking, or your wife were taking some compound to prevent pregnancy, would you be happy if it only helped reduce pregnancy?**

A. **Well, I think anything you take to prevent pregnancy, there is no 100 percent success factor.**

Q. **The testing that you have seen, both Exponent, your company's testing, and Dr. Vannoy and Mr. Dapkunas at Trident, all of it is consistent in that in none of the samples tested did plaques prevent bowing. Correct?**

A. **Prevent bowing in the sense of the word completely eliminating this is placing like a perfectly inelastic structure, that's correct.**

Q. **Can we go to PDX-110, please?**

Sir, you are familiar with how LG's product is constructed, aren't you?

A. **Well, I have never seen one made. I certainly know some of the parts that are in them, yes.**

Q. **Sir, I am going to represent to you, you are seeing how they are made, at least in some small measure right here on slide PDX-110. Do you see that portion that is indicated "steel reinforcements"?**

A. **I do.**

Q. **Are you aware that LG in its refrigerators puts steel reinforcements in the cabinet for the express purpose of trying to reduce or control bowing? Aren't you?**

A. **Well, I know they are there because when I cut holes in the walls, I found them. But I don't know why necessarily they are in there. I can certainly see how they will help reduce bowing. Whether that was why LG put them in there, I don't know.**

Q. **Well, putting a steel reinforcement like that not only adds cost, it adds labor time and effort and it adds weight to the refrigerator. Right?**

A. **It sure does.**

Q. **And if LG didn't need to do something like that, as an engineer you would expect that they wouldn't be doing it, wouldn't you?**

A. **I would think that if they had a way to do that without putting that steel in there, then they wouldn't. But I think there are other refrigerators on the market that do not use that steel reinforcement.**

Q. **And you also talked to Mr. Spears yesterday about PDX-248, the Korean Maritime University report. Correct?**

A. **The FE analysis.**

Q. **The finite element analysis?**

A. **I did.**

Q. **And you relied on that as a basis for opinions in this case. Correct?**

A. **I have.**

Q. **That report, in your view, is generally accepted in the scientific community, correct?**

A. **That's correct.**

Q. **And it is reasonably relied upon by engineers, correct?**

A. **The methodology is, yes. And I would say it is also**

important to make sure in such an analysis you have some data to use to evaluate the analysis, yes.

Q. Can we bring up, Mr. Brooks, PDX-81? Can we go to -- I am sorry -- yes, 81. Can you put side-by-side, Mr. Brooks, PDX-248, the last page of the document?

So you know what the graph is, I just want to put the data next to it so you can check it and make sure that you are comfortable that I have graphed this information correctly.

The upper gray line represents in this simulation -- this was a mathematical simulation. Right?

A. This is the results of a finite element analysis, which is a series of computations using mathematical formulas, yes.

Q. This is not a measurement of an LG accused product. Right?

A. Well, I look at the right-hand side, and I see the data. I am presuming what you have put on the left-hand side is some graphical representation of that.

Q. I will represent to you I have done so to the best of my ability, sir. And I did double-check it.

If you look at the steel reinforcements line, the steel reinforcements tend to have a fairly high and fairly consistent level of effect, correct?

A. Well, I am trying to look here. The numbers don't

seem to match, because you have got Nos. 6, 7, 8 millimeters on your graph and the data on the right-hand side is 3, 4, 5 millimeters.

Q. **I stand corrected, sir. That should have been tenths of a millimeter. The data we see on the graph is in tenths of a millimeter. Correct?**

A. **Which data?**

Q. **There should be a period on each of the numbers on the left-hand axis.**

A. **Okay. So that's eight-tenths of a millimeter.**

Q. **Yes, sir. This is one-tenth through eight-tenths of a millimeter?**

A. **But what's the basis?**

Q. **The basis is, for example, if we look at the depth of zero, comparing with support and without support, the difference is about eight-tenths of a millimeter, and that's what's been graphed here. If we look at one millimeter, depth of plaque, the difference is about .7 millimeters, which is graphed here.**

If we look at 2 millimeters, the difference is about 7 again. And that's been graphed here. If we look at 3 millimeters, the difference is about 7. And that's been graphed here. And at 4 millimeters, the difference is a little less than .7, and that's been graphed up here.

Do you see that?

A. **Okay. You have got three plots in this graph, okay. And the -- I just need to understand it because I have not seen that plot before. I have seen the data on the right-hand side. I am trying to understand the data on the right-hand side relative to what you have plotted here. What you are telling me is this gray line is the difference between with and without support at different plaque depths?**

Q. **Yes, sir. My question is: What the data from this mathematical simulation shows is that the effect of steel reinforcements is at least compared to very shallow plaques much more substantial and much more consistent across the depth of plaques. Correct?**

A. **Well, but, if we look at the blue and red graph at one millimeter, it doesn't match the data at all.**

Q. **Well, sir, if we look at the change from zero millimeters to one millimeter, that difference on the width support graph, which is the blue line, is about 0.06 millimeters, which is graphed here. Do you see that?**

A. **Well, I see that point there, yes.**

Q. **If you follow along the graph, you can see that the difference between one and two here is about .24 millimeters, and that's graphed at about this point, right?**

A. **Well, I guess what's confusing me is the label on the vertical axis which says "reduction in bowing." What it is is differences in reductions in bowing.**

Q. **Yes, sir. With that clarification, I stand corrected on two occasions. It's zero point the numbers on the left. And it's reduction, as is shown in the graph. With those two clarifications, the steel reinforcements have a much higher and consistent effect across different depths of plaque, especially relative to the shallower plaques on the left. Correct?**

A. **I think that's true. I think that the steel reinforcement at the shallower depths, based on this analysis, having a bigger effect on reducing the amount of bowing than the plaque analysis here. But it's also a significant amount. I mean, if you look there at the one depth level there, you have got one and a half -- .15 millimeters, and .15 is something on the order of 20 percent of eight-tenths. So it's a significant number. I would certainly agree, the steel is doing more than the plaques. But the plaques are contributing a substantial amount here relative to the overall component.**

I would say what a designer would want to do is to improve the effects of the plaque so they get up to the level that fits to what you are trying to accomplish here and take the steel out. That to me is what really should be the design objective here.

Q. **This analysis is indicating that you could actually do that if you were using plaques at about 3 and 4 millimeters'**

depth. Right?

A. That's correct.

Q. And LG never did that, did they?

A. No, they chose, apparently, if they were looking for reductions in bowing, to use steel contributing as well. But that doesn't mean that the plaques that are in those liners are not helping to reduce bowing. It does not mean that.

Q. I am sorry, sir. That wasn't my question. My question to you a while ago, the effect of the steel is high and consistent. Right?

A. It is higher at the lower depths than the effects you get from the plaques, yes, based on the plot you have shown me.

Q. The plaques that LG is using are about one millimeter in depth, right down here. Right?

A. That is generally what I measured in their refrigerators, yes.

Q. And you have never seen any plaques of LG that are anywhere higher than that. Right?

A. I don't think so, no. I think I have seen a few that are greater than one millimeter. But, no, nothing in the 3-to-4-millimeter range.

Q. Based on this analysis, the effect of the steel reinforcements in LG's refrigerators is about six times more

powerful than any effect that could be attributed to the plaques, correct?

A. **Yes, but that doesn't mean the plaques aren't contributing.**

Q. **Sir, the dimensions, just so the jury has a scale and physical reality of the dimensions that we are talking about here, we are talking about tenths of a millimeter. Right?**

A. **Yes, after you put the dots in front of the numbers on the graph, yes.**

Q. **And tenths of a millimeter are very small fractions of an inch. Correct?**

A. **Well, a millimeter is 25.4 -- an inch is 5.4 millimeters. So a tenth of a millimeter is on the order of hundredths of an inch, yes.**

Q. **So the effects we are talking about here are about the thickness of a human hair, aren't they?**

A. **Well, yes, that's correct. But, obviously, they are of concern, apparently, to refrigerator designers, because, even with trying to reduce that number, they are going to a lot of trouble to do that. Obviously, LG has chosen -- one of the ways they do that is to try and put steel in there.**

MR. COYNE: I have no further questions, Your Honor.

THE COURT: Mr. Spears.

REDIRECT EXAMINATION

BY MR. SPEARS:

Q. **Dr. Caligiuri, were you here for the testimony of Steve Williams?**

A. **I was.**

Q. **Did you hear any testimony indicating the amount of bowing that was prevented by the plaques in Whirlpool refrigerators?**

A. **Well, there were two parts of that, certainly. There was some FE analysis that Mr. Williams had done or that was done at Whirlpool where they talked reductions in bowing of 15 to 20 percent. Then Mr. Williams indicated that he had done some testing of liners with and without plaques and saw reductions in bowing of 40 to 50 percent.**

Q. **Based on the LG-originated FE analysis that you have reviewed, how much bowing, according to that analysis, was prevented by the LG plaque design?**

A. **Relative to -- well, I think the LG design -- oh. The percentage reductions in bowing on the LG units as predicted by the FE analysis ranged from a couple percent up to 15 percent, depending upon the depth of the plaque.**

Q. **Now, do you know if LG's experts performed bowing measurements on LG's samples in which the support structures that Mr. Coyne was talking about were removed?**

A. **Yes, they did.**

Q. **What was the result of that?**

A. **The result was that after they removed the steel reinforcements, the refrigerators bowed less than with the steel reinforcement.**

Q. **I would like to move on to a few questions about the '130 patent. The first thing I would like to ask is a question of follow-up on one that Mr. Coyne asked you earlier in his cross-examination.**

So Dr. Caligiuri, if instead of giving your son a pizza you were to give him a copy of Judge Sleet's claim construction and ask him to go to Plaintiffs' Exhibit 22 and tell you how many freezer compartments are in that refrigerator, what answer would you expect from your son?

A. **Well, I never asked him that. I would think that he would point out two.**

Q. **And if you were to ask your son to go to that refrigerator and bring you some ice from the freezer, which of those two freezer compartments do you hope he would go to?**

A. **He would go -- I would hope he would go to the upper freezer compartment where the ice is.**

Q. **Could I have Claim 1 from the '130 patent up? Let's blow it up, please.**

You spent quite a bit of time talking with Mr. Coyne about vertical augers and horizontal augers and side-by-side augers and augers pointing every which way.

My question to you, Dr. Caligiuri, is whether there is any language in Claim 1 that specifies a specific orientation for the auger in the ice bin?

A. **No. It only talks about an auger disposed within the ice storage bin. No orientation is specified whatsoever.**

Q. **And is there any such language in any of claims 2, 6, 8, and 9?**

A. **No.**

Q. **The next thing I would like to do is to talk about Defendants' Exhibit 770, the LG development document which Mr. Coyne characterized as a final project report. And to begin this, I would like to put up the cover page of Defendants' Exhibit 770 along with the cover page of Defendants' Exhibit 335, which we discussed during our conversation yesterday. So we have got them both, the cover pages both up there.**

Can you see that the originating group -- well, could you compare for me the originating group as between Defendants' Exhibit 770 and Defendants' Exhibit 335?

A. **Okay. The top two pieces -- I don't have the hard copy in front of me. The top two pieces are from which document?**

Q. **The top two are 775 and the bottom two are 335 -- I am sorry, 770 and 335.**

A. **Well, it's the same project group.**

Okay. That's different now.

Q. **So these documents came from the same project group.**

Let's put the dates up from exhibits 770 and 335.

A. **Okay, yes. The two documents came from the same Digital Appliance Laboratory and they are dated the same date, December 16th, 2003.**

Q. **These two documents were put out by the same people on the same day?**

A. **It has the same laboratory name on it, yes.**

Q. **In Exhibit 335, if we could turn to page 774, let's blow that up, there was -- is this the language that we put on the screen that you highlighted in your testimony yesterday?**

A. **Yes, it is.**

Q. **And that's language that appears in Exhibit 335. Correct?**

A. **I don't know where that came from -- oh, yes, it is.**

Q. **What I would like for you to do is to pull Exhibit 770, take it out of the binder that Mr. Coyne handed up to you --**

A. **Do you know what tab it is?**

THE COURT: It's the binder that looks like this (indicating).

THE WITNESS: I have found it. Thank you.

BY MR. SPEARS:

Q. **Pull it out, please. And once again, Dr. Caligiuri, this exhibit, 770, was written by the same group of people as 335 on the same day?**

A. **Well, based on the two cover pages that were shown to me, yes.**

Q. **I would like for you to show the jury how many pages of Defendants' Exhibit 770 have redacted text in them.**

You will have to hold it up and show it to the jury, sir.

A. **Each page?**

Q. **Just show it to the jury, the pages that have redacted text.**

A. **This page has redacted text on it (indicating). This page has redacted text on it (indicating).**

THE COURT: Do you want him to go through each page?

BY MR. COYNE:

Q. **Just thumb through it as quickly as you can, sir, so we don't spend a lot of time on this.**

A. **This page has redacted text on it (indicating).**

This page has redacted text on it (indicating).

This is an entirely redacted page (indicating).

There is two completely -- four completely redacted pages. Actually, more than that. There is one,

two, three, four, five, six, seven, eight, nine, ten -- there is plenty in here.

THE COURT: Dr. Caligiuri, I think, if you look in the right-hand corner below, the bottom corner of the exhibit you are looking at, you will see what's called a Bates number. It starts with LGK. Do you see that?

THE WITNESS: Yes, I do, Your Honor.

THE COURT: Why don't you start at the beginning. I think you will see the number 695. Do you see that? The last three numbers sort of like a patent number. 695?

THE WITNESS: Yes, Your Honor, I do.

THE COURT: Look at the last page of that document. I think you will see the number -- what number do you see there? I see 760. Do you see the same number?

THE WITNESS: I am sorry, Your Honor?

THE COURT: I am looking at what I am identifying as the last -- there is actually one additional page that doesn't have a Bates number. But the last page that has a Bates number, the last three numbers are 760. Do you see that?

THE WITNESS: Yes, I do, Your Honor.

THE COURT: If you have a pen up there, just do the subtraction and see how many pages there are in the exhibit, then quietly go through each page of the exhibit

and report to the jury how many pages have redacted information or redacted in total, so we don't take forever doing this.

Mr. Spears, when he is done, you can pick it up from there.

(Pause.)

A. **My rough count is about 37 pages. I may have missed a few.**

THE COURT: How many total pages are there in the exhibit?

THE WITNESS: I am sorry. 75. And 37, 38, maybe one or two.

BY MR. SPEARS:

Q. **So roughly half the pages in Defendants' Exhibit 770 have been redacted. Correct?**

A. **Either completely redacted or redacted in part, yes.**

Q. **By "redacted" we mean that the text on those pages has been covered up by LG?**

A. **It's got -- yes, it's been taken out, I guess.**

MR. SPEARS: No further questions.

THE COURT: All right. Thank you, Dr. Caligiuri. You are excused.

(Witness excused.)

MR. PARTRIDGE: May I confer with Mr. Coyne just for a moment, because I am going to slightly change the

order?

THE COURT: Just go ahead and confer, Mr. Partridge.

(Counsel confer.)

MR. PARTRIDGE: Your Honor, may I make a brief transition statement?

THE COURT: You may, yes.

MR. PARTRIDGE: Ladies and gentlemen of the jury, we are about to call two more live witnesses. As you will recall yesterday, I told you about the four live witnesses that you have just heard from.

My intention is to call Mr. Ron Voglewede, who is the developer of the dispenser for Whirlpool that has the spigot and the tray that move. And following that, we will call Dr. Albert Karvelis, who is our expert on the technical issues concerning the '121 patent.

So this relates to the prior art developments, at least from the standpoint of Whirlpool with respect to the '121 patent.

Given the conversation that we just had, there is a deposition that was taken of a Mr. -- let me get the name correct -- I may mispronounce this, and I apologize to LG if I do, Mr. Eui Y. Chung. The first name is E-u-i, Y., Chung, and this deposition clip that you hear will be relatively short. It's about, I think, 12 or 13 minutes or

so. And it addresses both the subject matter that you just heard from Dr. Caligiuri about. And there is a little piece that concerns the '121 patent as well:

"Question: I'm going to hand you what's now been marked as Exhibit No. 2, Chung Exhibit 2, which for the record is U.S. Patent No. 7,316,121.

"Mr. Chung, are you one of the inventors of the patent, the '121 patent which is Exhibit 2?

"Answer: Yes.

"Question: And is that your name here, the second listed inventor, Eui Yeop Chung?

"Answer: Yes.

"Question: Are Exhibits 3, 4, 5 and 6 idea generation sheets that were prepared in connection with the invention of the '121 patent which is Exhibit 2?

"Answer: I believe so.

"Question: Mr. Chung, during Mr. Lee's deposition, he had done some research and had determined that Exhibits 3, 4, 5, and 6 had all been created on February 5th, 2003.

"My question for you is, are you aware of any other documentation or any documentation, excuse me, in connection with the inventions of the '121 patent which were created any earlier than Exhibits 3, 4, 5, and 6?

"Answer: No. I don't know.

"Question: When you say you don't know, are you saying you're not aware of any other documentation that predates Exhibits 3, 4, 5 and 6 in connection with an invention to the '121 patent?

"Answer: Since it was such a long time ago, I do not recall at this time.

"Question: Do you have any documents that establish when the ideas in connection with the '121 patent were first generated?

"Answer: No.

"Question: Were you aware that Whirlpool had a patent in connection with its indoor ice solution?

"Answer: Yes.

"Question: Do you recall any design changes either to the bin or to the placement of the ice maker in connection with LG's indoor ice solution as a consequence of Whirlpool's patent on its indoor ice solution?

"Answer: No. I have no recollection of such things.

"Question: What led you to conclude that there was no infringement -- or there would be no infringement of Whirlpool's patent by having an ice maker mounted on the door?

"Mr. Davis: I caution you, Mr. Chung, not to reveal privileged communications in answering this question.

If you need to have another discussion, let me know?

"Answer: I'd like to discuss the matter with my counsel, and then provide an answer.

"Mr. Davis: Actually, there is no way for me to allow him to answer that without revealing privileged communications, so I am going to have to instruct him not to answer.

"Answer: I'm not going to answer that question.

"Question: And the reason is in order to answer that question, it would reveal attorney-client communications, is that what you're saying?

"Answer: I believe that is up to my attorney to decide whether that is the case or not.

"Mr. Davis: The answer is yes."

MR. PARTRIDGE: Your Honor, since I took this a little bit out of order in light of the last discussion with the witness, there is a counter-designation by LG. And the arrangement was to play our part, play their part. So we have a few minutes, I think it's four or five minutes, of LG's counter-designation that now follows.

"Question: Do you know if there were any design changes made as a consequence of the concern about Whirlpool's patent on its indoor ice solution?

"And to be more clear, I'm referring to design changes to LG's indoor ice solution in connection with the

BICS project you were working on.

"Mr. Davis: Objection to form. Also caution you not to reveal any privileged communications, Mr. Chung. Certainly you can refer to -- refer to any different designs.

"Answer: The new design that we were thinking about at that time was something that was, of course, different from the prior design, because of the ice system that was within the -- the ice system that was within the freezer chamber was coming out to the portion where the door is. So of course, there was this design change that was done in comparison to the prior design. It's a different design, but I don't think that it was in connection with anything with Whirlpool's design.

"Question: Do you recall any discussion within LG that if it went with its indoor ice solution, that it would likely be sued by Whirlpool for infringement of its -- of Whirlpool's indoor ice patent?

"Mr. Davis: Objection to form, and also caution Mr. Chung not to reveal any privileged communications in answering this question.

"Answer: What I recall is that the refrigerator by Whirlpool has its ice maker connected to its freezer chamber, whereas LG's refrigerator has its ice maker connected to the door, so the two are quite different. And

I believed that we were not infringing on Whirlpool's patent in any way, so there was no discussion of that. And the very first time I learned of this infringement issue was in conjunction with this deposition."

MR. PARTRIDGE: Your Honor, Mr. Morico will call our next witness.

THE COURT: All right.

MR. MORICO: Thank you, Your Honor. Whirlpool calls as its next witness Mr. Ronald Voglewede.

... Ronald V. Voglewede, having been duly sworn as a witness, was examined and testified as follows ...

THE COURT: You may proceed, Mr. Morico.

DIRECT EXAMINATION

BY MR. MORICO:

Q. **Mr. Voglewede, by whom are you employed?**

A. **Yes. I am employed by Whirlpool Corporation.**

Q. **What is your current position with Whirlpool?**

A. **Yes. I am senior manager of global business strategy and development for refrigeration.**

Q. **How long have you held that job as senior manager?**

A. **I have held that job since September of 2007.**

Q. **What was your position before becoming the senior manager?**

A. **I was a manager in our global advanced development and research for refrigeration as manager.**

Q. **Approximately what years did you hold that position?**

A. **I held that position from about 2005 to 2007.**

Q. **How long have you been with Whirlpool?**

A. **It will be 14 years this summer.**

Q. **Prior to holding the position as global manager, what was your prior position to that?**

A. **I was a lead engineer in our advanced development group.**

Q. **Approximately what years did you hold that?**

A. **That one was about 2003 to 2005.**

Q. **Were you also dealing with refrigeration at that time?**

A. **Yes. I worked in our advanced development group in ice and water for refrigeration.**

Q. **What was your position before being the lead engineer?**

A. **I was a senior engineer and supervisor of a group in advanced development for research.**

Q. **Again, was that in refrigeration?**

A. **Yes. That was in refrigeration.**

Q. **Approximately what years did you hold that position as senior engineer?**

A. **Senior engineer was about 2001 to 2003.**

Q. **Just briefly describe the position or positions you had before then.**

A. **Yes. I was a project engineer in our advanced development for research for refrigeration in 2001 to 2003.**

And -- from '99 to 2001. Before then, when I hired in after college, I hired into Whirlpool's technical excellence program which was a three-year development program where we rotate around different jobs for three years, and got a Master's degree.

Q. **Where did you graduate from college?**

A. **I put myself through the University of Notre Dame in 1996.**

Q. **And what degree did you receive?**

A. **I have a Bachelor's degree in mechanical engineering.**

Q. **And you mentioned some graduate work. When did you receive that and with what university and what discipline?**

A. **Yes. I went to the University of Michigan; graduated in December of 1998.**

Q. **Approximately how many years of the 13 or so years you have been with Whirlpool have you worked in the refrigeration area?**

A. **Approximately, in advanced development, about nine to ten years of that time frame.**

Q. **Have you received any patents since working at Whirlpool?**

A. **Yes. I have 9 U.S. patents granted, and about 25 foreign patents granted, and 18 to 19 currently pending.**

Q. **Are all of those in the refrigeration area?**

A. **Most of them are. There is a few in some other**

categories as well.

Q. **Mr. Voglewede, I would now like to focus your attention on a project called Niagara. Are you familiar with that project?**

A. **Yeah. That's a project I led from 2001 to 2005.**

Q. **What did the project relate to?**

A. **Project Niagara was the development of a new advanced dispenser design to do new features and development for a next-generation ice-and-water dispenser for a refrigerator.**

Q. **What sort of features were involved in that Niagara or advanced dispenser?**

A. **During the feature development, we had done lots of different features we were looking at. Quite a few were looking at shaved ice, measured water. We were looking at rotating spigots and spigot designs, extendable trays, larger openings, electronics, even people detection at the dispenser.**

Q. **When you say rotatable spigot, what are you referring to?**

A. **Yeah. The rotatable spigot is just like a spigot in your house, it's where the water would come out and dispense into glasses.**

Q. **And when you refer to extendable tray, what are you referring to there?**

A. **The tray is at the bottom to catch drips in the past,**

was its main function. We were looking at how do we make that more functional. So it was a tray that could come out and hold different size glasses or different size containers and also function as a small little countertop. That was an issue.

Q. What I would like to do now, Mr. Voglewede, is have you step through as briefly as we can the development of this Niagara advanced dispenser while you were leading that project from the 2001-to-2005 time frame.

Let's start when the idea first came about. Can you tell us a little bit about that, the background?

A. Yeah. In 2001, when I started the project and we really got going, we had some brainstorming meetings to start the project. In early 2001, that was the same time, I was lucky enough to get married that summer and we were preparing for our wedding. We did all the things ourselves. In early 2001 we started this big project and had brainstormed a lot of the concepts and features that I had just discussed. Then we started building prototypes of some of those features starting that summer, and started getting into some functional mockups that we did at the end of 2001.

Q. You had mentioned earlier the features of a rotatable spigot and an extendable tray. Were those features discussed or considered in that early 2001 time frame?

A. Yes, they were.

Q. **If you can turn to tab 1 in your binder. You have a number of binders, Mr. Voglewede. My apologies for that. Your binder 1, it's the thinner binder of the ones before you. If you could turn to tab 1, which for the record is DX-0283.**

My question is: Do you recognize this document?

A. **Yes. It's an invention disclosure sheet. It's a sheet we fill out to document any of the ideas that we have.**

Q. **Does this relate in any way to the rotatable spigot and the extendable tray that you just referred to?**

A. **Yes. This one refers to the benefits and the idea around a rotatable spigot.**

Q. **And when did those ideas, according to this document, first come about?**

A. **You can see there, we have to document when we came up with the idea of the date of conception. That one was March 21st, 2001.**

Q. **Kelly, if you could show that. It's down below the figures there.**

Can you describe briefly for the jury what's shown there?

A. **Yes. Those are different spigot designs. The date of conception is in the third column from the left underneath the pictures there, where it says "2001."**

Q. **If you can turn to the next page, Mr. Roberts.**

Mr. Voglewede, can you describe briefly what's on that page?

A. **Yes. On this page we discuss about an extendable drip tray or extendable tray for refrigerators and show some of the concepts that we had generated, where we described some of the benefits of it, and so those are some of just the -- you know, some of the ways we could design and develop it.**

Once again, that one is the same conception date, March 21st, 2001.

Q. **Mr. Voglewede, you had mentioned that in the 2001 time frame you had built a prototype. Was that a working prototype?**

A. **Yeah. In late 2001 we built, it's a little tabletop mockup, so we don't have to have the whole expense of a whole refrigerator. We have a little mockup, where we dispense water and had some of the features on that prototype.**

Q. **If you can turn to tab 2, which for the record is DX-0621 through 0623. Do you recognize the photos in that tab?**

A. **Yes, I do. Those are photos of that prototype that we built and could dispense water out of.**

Q. **Do you recall approximately when that prototype was built in 2001?**

A. **Yes. It was late 2001. So around November-December**

time frame.

Q. Let's move forward to the 2002 time frame.

Generally, what type of development took place in the 2002 time frame in connection with the advanced dispenser?

A. 2002 began when we started getting more involvement and got to continuing and accelerating the project, where we did more full refrigerator prototypes, and additional market research as well.

Q. The prototype that you built in 2002, was that documented anywhere? Did you take photos of that at all?

A. Yes. We took photos and there is other documentation. We always had to keep a record of what development we did.

Q. If you could turn to tab 3-B in your binder, which for the record is DX-0392.

Does that document refresh your recollection or relate in any way to the prototype that was built in the 2002 time frame?

A. Yes. On the last three numbers, page 270, the bottom picture there is actually the picture of the prototype we built in 2002.

Q. Were you building any mockups or prototypes of the rotatable spigot during that year?

A. Yeah. At the same time we were also working on a lot of the different other features with the project team. Some

of them were the rotatable spigot, along with other features.

Q. **Can you turn to tab 3-A, which for the record is DX-0626 through 630, and DX-0368?**

Do those photos relate in any way to the rotatable spigot which was developed in 2002, in that time frame?

A. **Yes. Those are pictures of some of the prototypes we were developing at the time.**

Q. **Now I would like to turn your attention and focus on the early 2003 time frame. Generally, what development work took place during that time frame in connection with the advanced dispenser?**

A. **Yes. We continued to work on the prototype and refining all the concepts. And in 2003, we did additional market research. We built two prototypes of a Kenmore design. So looking at some of the different branded variations, as well as we had trade shows. We started to interact with the trade, so Sears and Lowe's, in that summer as well.**

Q. **Do you recall approximately when those prototypes were built in the 2003 time frame?**

A. **Yeah. That one we had to work through the Memorial Day. The market research was the first week of June. So unfortunately we had to work through -- to get it done,**

through Memorial Day weekend. So the end of May.

Q. Did you photograph or otherwise document the prototype that was built at that time?

A. Yeah. We would, once again, have all kind of updates to management, as well as monthly reports and then photographs as well.

Q. If you can turn to tab 4, which for the record is DX-0279 and DX-0620. Do those photographs in any way relate to the prototype that was built in the early 2003 time frame?

A. Yeah. That's the one we built over the course of that spring and finished over Memorial Day, yes.

Q. And can you -- with reference to those photos -- Mr. Roberts, if you can have them up on the screen, please. I believe there are two.

With reference to those photos, Mr. Voglewede, what I would like you to do is, if you could, briefly describe the features that that prototype had.

A. Yeah. That one is one when we incorporated -- we had a larger opening. We had electronic paddles. Up to that time they were all mechanical. We had rotating spigots, extendable trays, as you can see. We had a measure fill with little measuring cups in there so we could measure the water. We had a motion detection on it. We had filter indicators. And we had, I believe at that time, some

nightlight as well for the dispenser.

Q. **Was the rotatable spigot capable of rotating in more than one position?**

A. **Yes. In this prototype, it would be able to rotate all the way around and have catches to stop in different positions anywhere between zero and 180 degrees out front.**

Q. **Was there any purpose to having those different positions?**

A. **Yes. It's in order to -- when we looked at what the consumers would use the dispensers for, we were developing different ways to fill either small glasses, larger containers or coffee pots especially, since Whirlpool made so many coffee pots with Kitchen Aid. So you could fill those in the center.**

And then outside, our extended position is where you could fill large containers, whether it be coolers or things that wouldn't necessarily fit.

Q. **In connection with the extendable tray that's shown there in the photo to the right, was that capable and robust enough in order to support a pot of water?**

A. **Yeah. The design requirements was to be able to support anything that could fit in there and fill it. But Whirlpool also has pretty stringent testing on -- there is a Johnny test, we call it, which is it has to be able to support a 50-pound kid hanging on the tray to make sure it**

wouldn't break.

Also, there was a turkey drop test we would always talk about as well. If someone took out a turkey, it would have to be able to support it being dropped on it so it wouldn't break, as well.

Q. **You had mentioned that that prototype was shown to Sears. Do you recall any of the individuals at Sears who had seen that prototype?**

A. **Yeah. It was both in market research and then we even had kind of a trade show inside as part of talking about some of the development that we were doing.**

The two people that I recall specifically at that time, they were Kathy Goodwin, who was kind of their appliance buyer, then the other one was Rich Donner, who was kind of the technical person.

Q. **When was the prototype shown to Sears approximately in 2003?**

A. **In 2003 we invited them, along with Lowe's, to market research that we did in June. And then in that summer there was actually a, let's say, like a little mini-trade show in our building in the big conference room where they got to see all the different development projects that we were working on.**

Q. **Let's talk a little bit now about late 2003-early 2004 time frame.**

THE COURT: Since you are going to a different topic, Mr. Morico, let's take our morning break.

(Jury leaves courtroom at 11:02.)

(Recess taken.)

THE COURT: Ms. Walker.

(Jury enters courtroom at 11:25 a.m.)

THE COURT: Ladies and gentlemen, please take your seats. We will continue. Mr. Morico.

BY MR. MORICO:

Q. **Mr. Voglewede, just prior to the break, we were starting to talk about the activity or I was about to ask you about the activity that took place in the 2004 time frame in connection with the development of the Niagara advanced dispenser?**

What activity, if you can just briefly describe, took place in late 2003-2004 time frame in connection with that dispenser?

A. **Yeah. The late 2003-2004 time frame was when we were handing off the project to our engineering team so they could start implementation. And at that time -- as well as filing for patent applications as well.**

Q. **If you could turn to tab 6, which for the record is PTX-0742. If we could pull that up, please.**

Mr. Voglewede, tab 6, PTX-0742, is that the patent application that you mentioned in connection with the

advanced dispenser that was filed by Whirlpool?

A. **This is the patent that granted based on that patent application we filed back in 2004, yes.**

Q. **Can you tell from that document what the filing date of that patent was?**

A. **Yes. The filing date is on the patent, it says June 4th, 2004.**

Q. **When did the patent issue?**

A. **The patent issued in November 25th, 2008.**

Q. **Mr. Roberts, if you could turn to Figures 3 and 4 -- Mr. Voglewede, if you could turn to Figures 3 and 4.**

Mr. Roberts, if you can put those up on the screen.

Can you briefly describe, Mr. Voglewede, what is shown in connection or in reference to Figures 3 and 4 of your patent?

A. **Yes. Figure 3 shows the actual dispenser fully assembled, so with all the different features, the extendable tray in the extended position, the rotating spigot in the extended position, then as far as electronic paddles and user interface.**

Then the figure on the right, Figure 4, is all the different parts it would take to design and assemble the advanced dispenser. So the rotating spigot there, you can see, with all the parts it would take to assemble that, and

then the extendable tray along with the dispenser well.
Q. If you can go back to the front page of the document for a moment. Are you listed as one of the inventors on that patent?
A. Yes. I am listed as an inventor on the patent, yes.
Q. Did there come a time when Whirlpool ever introduced a refrigerator having the Niagara dispensers?
A. Yes, we did. In 2005, we went out to -- I was lucky enough to go out to Las Vegas at the international builders show. They displayed the Niagara refrigerator at that time and showed it to the public, as well as later that year we actually started producing units for sale.
Q. Do you recall approximately when in 2005 you started selling the units, having that dispenser?
A. I don't know the specific date. But it was in that summer.
Q. Did the unit that was shown at the trade show and then ultimately sold in 2005 have a rotatable spigot?
A. Yes, it did.
Q. Did it have a pull-out -- or extendable tray?
A. Yes, it did.
Q. How did the spigot operate in that device?
A. In that device and that refrigerator it was just one that the consumer could turn around to multiple positions, including out the front, just like in the drawings in the

patent.

Q. **Did there come a time when the spigot was rotated by some other means?**

A. **In that time frame we also had a lot of different brand variations. Whirlpool had Whirlpool brand, we had the Kenmore, the Kitchen Aid. The Kitchen Aid one was fixed. We had all the same parts in the spigot. But we kept it fixed for that brand. The Whirlpool one would rotate to multiple positions.**

Then Kenmore had one where they requested us to have it automatically rotate.

Q. **Mr. Roberts, if you can put up on the screen the timeline. I have a question for you, Mr. Voglewede.**

Does this timeline accurately reflect the sort of key milestones, if you will, in the development of the advanced dispenser?

A. **Yes. The conception was in 2001. We built -- after several prototypes, we got to the May 2003 advanced prototype that you see with all the different features on it. We filed in 2004. So that's correct.**

Then we introduced to the marketplace at the show in January of '05. Then I know, as you can see here, the patent issued in November of 2008.

Q. **Mr. Voglewede, how would you characterize the activity or the development of the advanced dispenser between the**

2001 and 2005 time frame?

A. **Yeah. It was a project that I worked on with a team that we continuously worked on and continually iterated and refined throughout the whole process of looking at all the different features and development.**

Q. **Other than the photographs that we showed earlier, did you otherwise document the prototype that was built in the 2001 time frame?**

A. **As far as the 2001, just like other years, we had to do monthly reports, detailing out the development of what you are doing, for all your projects. In this case, including the advanced dispenser at the time, it was called, as well as other kind of project updates to different people in management and different product groups.**

Q. **If you could turn to tab 7-A and B, which for the record is DX-0405, and DX-0360. Do those documents in any way relate to the monthly reports and other documentation that you just mentioned in connection with the 2001 prototype that was developed?**

A. **Yeah. This one particularly is the August 2001 monthly report, where we talk about the advanced dispenser project and concept and how it's being developed. And then DX-0360 is a -- what we call an idea-screening tollgate or a checkpoint where we summarize all the work we have been doing up to that time, the work we have been doing on the**

project. It's called idea-screening tollgate.

So we -- this one is the same as that as well.

Q. **Referring to DX-0405, does it mention anywhere in that document, the August 2001 monthly report, does it mention anywhere in there about the prototype that was built in that year?**

A. **Yes. In page 376 we say in related development, an advanced development concept is being worked on.**

It talks about all the different features, including extendable trays, going into prototyping.

Q. **Mr. Voglewede, was there any documentation, other than the photographs of the rotatable spigot and the unit that we saw in the 2002 time frame, which document that prototype?**

A. **There, again, the same thing. We continued to do monthly reports on a monthly basis with all the different design work, as well as these tollgate or update presentations, as well, to different groups.**

Q. **If you can turn to tab 8, which for the record is DX-0409. Does that document in any way relate to the prototype or document the prototype that was built in the 2002 time frame?**

A. **Yeah. This is an April 2002 monthly report. On page 404, once again, was the section that I would fill out on advanced dispenser shifting from the technical work, getting it ready for the market research that we were going to in**

May of that year.

Q. **Does that refer at all in that section about the prototype?**

A. **Yes. So essentially we were working on the prototypes, and we had completed them at the end of May because we had to ship the units to several different cities to get consumer input. So that when we talk about shifting from technical work was basically the prototypes being completed.**

Q. **Shifting now to the prototype that was built in the May 2003 time frame, are there any documents to document that prototype which was built around that point in time?**

A. **Yeah. There is multiple photos. We did monthly reports. There was at that time as well market research. And once again, tollgate or update reports, formal reports that we had to do.**

Q. **Can you turn to tab 9, which for the record is DX-0392. Does that document refer to in any way or refresh your recollection about other documentation which related to the prototype that was built in the 2003 time frame?**

A. **Yes, it does. In this case, it's another tollgate review. In this case it's a TDP, we called it, technical design preview, so we would show it to different technical people. And in this case it shows on page 270, the top picture is the prototype along with the previous prototypes**

we have made to show, you know, that we were continuously developing it and doing our work on it.

Q. **What is the date on DX-0392?**

A. **On the front it's June 25th, 2003.**

Q. **The monthly report we referred to in connection with the 2002 prototype, which was tab 8, what is the date of that document?**

A. **Tab 8, it says monthly report, April of 2002.**

Q. **Mr. Voglewede, other than the documents we have just reviewed, the seven or eight documents, were there any other documents which were created by Whirlpool which record, if you will, the development of the advanced dispenser?**

A. **Yes. We had numerous monthly reports for each month. We had pictures, we had market research where we took it out to get input. We also had numerous other tollgates or formal reports, as well as others.**

Q. **You have referred to "tollgates." What does that mean?**

A. **Tollgates are just basic checkpoints, where you had to as a formal process make sure we were getting all the inputs and working and have robust designs as we go through each portion of the development cycle. So making sure we had all our ducks in a row, if you will.**

Q. **Mr. Voglewede, if you can turn to your binder set 2. There should be two volumes there.**

A. **Binder set 2?**

Q. **Actually, is there only one binder set for binder set 2?**

A. **Yes.**

Q. **If you can refer to binder set 2 for the next couple of questions I have. In particular, if you would, if you can first turn to tabs A-1 through 17, which, for the record, is DX-406 through 408, and DX-410 through 423.**

My question is: Do those documents in tab A refresh your recollection with respect to the monthly reports that were created in the 2001-2003 time frame in connection with the development of the advanced dispenser?

A. **Yes, they do. They are the monthly reports from 2001 through the end of 2003.**

Q. **Mr. Voglewede, if you can refer now to tabs B-1 through 11 in binder set 2. For the record, those documents are DX-0362, 0363, 389, 401, 397, 382, 404, 391, 388, 649, 361, 385, and 381.**

My question is: Do those documents relate in any way to the tollgate documents that you mentioned, which were created in connection with the development of the advanced dispenser from the 2001-through-2003 time frame?

A. **Yes, they do.**

Q. **If you can now turn to the final tab in that binder, tabs C-1 through 4, which, for the record, contain DX-0372**

and DX-642 through 644. My question is: Do those documents relate to the marketability studies that you mentioned which were created in connection with the development of the advanced dispenser?

A. **Yes, those are.**

Q. **Mr. Voglewede, were there any other documents created in connection with the development of the advanced dispenser from the 2001-2005 time frame?**

A. **Yes. There was numerous e-mails, we had technical drawings, updates, engineering testing, robustness testing, and a lot of other, say, miscellaneous pictures, drawings, or updates that we did at the time.**

Q. **Mr. Voglewede, if you can look at binder set 3, volumes 1 and 2. There are 130 tabs there. If you could just review those documents and let us know if those generally relate to the development of the advanced dispenser during that time frame.**

Your Honor, I have a question. Would it be necessary to read each of those documents into the record?

THE COURT: You can discuss that with Mr. Sharma.

(Counsel confer.)

(Pause.)

MR. MORICO: Your Honor, we have conferred with counsel. If it is all right with Your Honor, we have agreed

to provide a list to the jury without having to indulge everyone with reading through the documents.

THE COURT: That would be fine.

THE WITNESS: Set 3, volume 1, those are all related to the development of the advanced dispenser at those times, from 2001 through 2004.

MR. MORICO: Thank you.

Your Honor, one thing I left out. The agreement we reached with counsel for LG was that, while the list can go back with the jury, the documents would not.

THE WITNESS: I am sorry, there is quite a few.

(Pause.)

THE WITNESS: The same here for set 3, volume 2. Those are all documents that the team generated.

MR. MORICO: I would like the record to reflect that the witness reviewed all the documents before answering the questions.

THE COURT: That is fine.

BY MR. MORICO:

Q. **Just a couple more questions, Mr. Voglewede. Thank you.**

To your knowledge, Mr. Voglewede, did LG sell a refrigerator with a dispenser having a rotatable spigot and extendable tray in 2001?

A. **No.**

Q. **To your knowledge, did LG sell a refrigerator with a dispenser having a rotatable spigot and an extendable tray in 2002?**

A. **No.**

Q. **How about 2003?**

A. **No.**

Q. **2004?**

A. **No.**

Q. **2005?**

A. **No.**

MR. MORICO: Thank you very much, Mr. Voglewede.

THE COURT: Thank you. Mr. Sharma, you may cross-examine.

CROSS-EXAMINATION

BY MR. SHARMA:

Q. **Good morning, Mr. Voglewede. How are you?**

A. **Good morning.**

Q. **You just gave a list of time periods in response to Mr. Morico's questions about refrigerators that LG may have sold. Do you recall that?**

A. **You are referring to the last question, about 2001, 2002? Yes.**

Q. **That was 2001 through 2005?**

A. **That's correct.**

Q. **Did Whirlpool during that same time period sell any**

refrigerators that had an extendable tray and a rotatable water spigot that used a mechanical drive?

A. **In 2005 there were designs where we had possibly the Kenmore version where there was an automatic spigot.**

Q. **And that was the first time designs were made. Is that correct?**

A. **No. That is like the question you just asked, where we first produced them and market.**

Q. **Mr. Voglewede, you will recall, we have met before for a deposition. Correct?**

A. **I believe in Chicago when I came back from my vacation, yes.**

Q. **You recall as part of that deposition, we also talked about monthly reports. Correct?**

A. **It's been -- it was August or so, last year, so, possibly, yes.**

Q. **Mr. Voglewede, you gave quite a bit of testimony today about monthly reports on the advanced dispenser prototype. Correct?**

A. **We talked about monthly reports today, yes.**

Q. **You didn't prepare any of those reports. Isn't that right?**

A. **I would prepare my sections of the projects I would work on and they would be collated with our secretary, and then my boss would formalize the reports for my executives.**

Q. **Mr. Voglewede, I am going to go back to that deposition when we were in Chicago. You recall I asked you questions and you gave answers. Correct?**

A. **I think that's how it works, yes.**

Q. **And you recall I asked you at the beginning of the deposition if there was anything that would prevent you from providing truthful and accurate testimony. Do you recall that?**

A. **Not specifically, but, yes, I am sure.**

MR. SHARMA: Your Honor, may I approach the witness to provide him with a copy of that deposition transcript?

THE COURT: Yes.

BY MR. MORICO:

Q. **Mr. Voglewede, I want to first direct your attention to page 12 of the transcript. This is the one that's dated July 28, 2009. Actually, it's page 13, line 6. Are you there?**

A. **Which page again?**

Q. **Page 13, line 6.**

A. **Yes.**

Q. **Do you see the question: "Is there anything today that would prevent you from providing truthful and honest answers to my questions?**

"Answer: No."

Did I read that correctly?

A. **Yes, it says that.**

Q. **Let's go now to, I direct your attention -- because I moved topics, I just want to be clear, you did not prepare the monthly reports or any sections of those monthly reports. Correct?**

A. **Actually, we would provide input right in our sections and the secretary and my boss would actually put those together.**

MR. SHARMA: Your Honor, one moment. I am sorry.

THE COURT: Okay, Mr. Sharma.

(Pause.)

BY MR. SHARMA:

Q. **Mr. Voglewede, I apologize for my lack of organization. I need to take you back to that first transcript and direct your attention page 324. There is testimony that begins on line 16. It refers to an Exhibit 28.**

If you could bring up PTX-615, Mr. Brooks.

A. **Could you repeat that again for me? I am sorry. You are kind of going a little fast.**

Q. **Page 324, Exhibit 28?**

Are you at that testimony, Mr. Voglewede?

A. **Yes, I am.**

MR. SHARMA: Mr. Brooks, can you please play the tape from that excerpt?

"Question: Have you prepared other" --

MR. MORICO: Can we get the line numbers?

MR. SHARMA: Page 328, line 16.

MR. MORICO: You mentioned 324.

MR. SHARMA: I am sorry. Page 324, line 16.

Your Honor, I am going to withdraw the question and keep going, if that is all right.

THE COURT: Okay.

BY MR. SHARMA:

Q. **Mr. Voglewede, you talked about a few prototypes, a 2002 prototype and a 2003 prototype. Do you recall that?**

A. **Yes. There was prototypes we built in 2002 and we built a couple prototypes as well in 2003.**

Q. **Now, the 2002 prototype, where is that today?**

A. **The 2002 prototype we cannibalized and used a lot of the parts to save money and we reused them in development.**

Q. **Where is the prototype today?**

A. **Probably in a lot of other different parts.**

Q. **So it doesn't exist as a prototype?**

A. **As a full refrigerator prototype, no, it does not.**

Q. **Now, earlier today you testified that the 2002 prototype has a pull-out extendable tray. Is that correct?**

A. **The 2002 had a lot of different features, including an**

extendable tray, yes.

Q. **But you can't recall when Whirlpool first thought of the idea of a pull-out extendable tray. Is that correct?**

A. **Like I said before, and I think the invention disclosure sheet shows, we had in 2001 the idea of an extendable tray, along with a lot of other features, including spigots and -- rotating spigots.**

Q. **Mr. Voglewede, when we met at your deposition, we talked about the pull-out extendable tray. And I asked you if you recalled the specific date when you first came up with that idea. Do you recall that?**

A. **No, not specifically that question. It was about 14 hours that day.**

Q. **Can I direct your attention to your transcript in front of you, page 471?**

A. **Sure.**

Q. **This is lines 1 to 6.**

MR. MORICO: Counsel, was that the same day?

MR. SHARMA: Page 471.

MR. MORICO: That was actually a separate day.

THE WITNESS: 471, yes.

BY MR. SHARMA:

Q. **"Question: Do you know when Whirlpool first came up with the idea for a pull-out extendable tray?**

"Answer: I don't recall the specific date when

that one was discussed.

"Question: Would it be in 2001?

"Answer: Like I said, I don't recall."

Did I read that correctly, Mr. Voglewede?

A. **Yes, you did.**

Q. **Now, the 2002 Whirlpool prototype, that did not have a movable water spigot, did it?**

A. **In general, that one, in that specific example, we did not have a rotating spigot. We had other prototypes with rotating spigots at the same time we were developing.**

Q. **This is the May 2003 prototype. That was the first time Whirlpool combined the rotatable spigot and extendable tray. Is that correct?**

A. **Whirlpool, we had been -- like the development of the advanced dispenser project was a project where we had a whole new dispenser where we had all the different features, where we looked at refining and doing developments of those throughout the project.**

Q. **Mr. Voglewede, the first time Whirlpool combined an extendable tray and a rotatable water spigot in a working prototype was in May of 2003. Correct?**

A. **For that specific -- putting those in a functioning prototype, yes. We then -- a lot of development up-to-date on those features.**

Q. **But you can't recall when Whirlpool first thought of**

the idea of a movable water spigot. Isn't that correct?

A. **Like I said before, in March of 2001, we were looking at all the different features we could put on a dispenser and that's when we came up with the idea of rotating water spigots or water wands, as we called them, along with extendable trays.**

Q. **I believe when we met before you distinguished water wands with water spigots. Isn't that right?**

A. **We used them synonymously. Water wand and water spigot the same kind of concept.**

Q. **Water wand is a hose in the refrigerator and you could actually pull it out and walk around and spray things on the floor with it. Correct?**

A. **That is one example. Water arm is another name we used for water spigot, depending on technology or marketing.**

Q. **Water spigot, when you talk about a rotatable water spigot, that is what you are referring to when the consumer pushes a spigot and it rotates?**

A. **No. Rotating spigot is any time the spigot can move to different locations. It didn't matter necessarily how it was activated.**

Q. **And the initial idea for the rotatable water spigot, you weren't involved in that. Correct?**

A. **No, that's not correct, unfortunately. That's one I helped invent in 2001.**

Q. **Mr. Voglewede, page 540 of your deposition. I direct your attention to lines 4 to 10. Are you there?**

A. **Not yet. Thanks.**

Which lines?

Q. **Lines 4 through 10.**

Mr. Brooks, can you play the video, please?

"Question: How about the initial idea of using a rotatable water spigot on a refrigerator, were you involved in that initial idea at Whirlpool?

"Answer: On that one, I don't recall. Like I said, we talked about different positions of the -- of the water outlet, but I -- I don't recall that one specifically, no."

BY MR. SHARMA:

Q. **Was that your testimony?**

A. **Yeah. It reads here just before that as well that the concept of a water wand, was I involved in that, and I said yes.**

Q. **But I was asking you about the rotatable water spigot. Correct?**

A. **Like I said, we used those terms fairly synonymously.**

Q. **Mr. Voglewede, the 2003 prototype, you will agree that did not have an automatic spigot. Right?**

A. **On that one, we had a rotating water spigot that didn't require any automatic wand. That was a request from**

Sears later on.

Q. **Mr. Voglewede, you agree with me you told the Patent Office that the 2003 prototype did not have an automatic spigot. Correct?**

A. **When you say I told the Patent Office that, I don't actually talk straight to the Patent Office. So I don't know what you are referring to.**

Q. **Mr. Voglewede, did you submit a declaration to the United States Patent and Trademark Office where you indicated that that 2003 prototype used a manual spigot?**

A. **Like we discussed before, that was one of the ways, and in that prototype, that one was a rotating manual water spigot, yes.**

Q. **And that's what you told the Patent Office?**

A. **I don't recall. It's been -- what time and date was that?**

Q. **This is PTX-608.**

MR. SHARMA: Your Honor, PTX-608 is a very large document that includes a declaration of Mr. Voglewede. I have spoken to Mr. Morico about just having the declaration be PTX-608(a), if that is acceptable.

BY MR. SHARMA:

Q. **Do you see that in your binder, PTX-608?**

A. **Is this in this binder?**

Q. **Hopefully, that is labeled "cross binder" on there**

somewhere.

MR. MORICO: Your Honor, I don't believe he has a cross binder.

THE COURT: I don't think he was given that.

MR. SHARMA: No, he was not.

BY MR. SHARMA:

Q. I apologize, Mr. Voglewede. That makes it a little difficult.

A. A little difficult.

Can you repeat the question?

Q. It was PTX-608.

A. You said A?

Q. Yes.

A. Sure.

Q. Are you there?

A. Yes, I am.

Q. And that is the declaration of Ronald Voglewede. Is that correct?

A. The title reads "Declaration of Ronald L. Voglewede," yes.

Q. That is you. Right?

A. Yes.

Q. That is something that was submitted to the United States Patent and Trademark Office. Correct?

A. It says "In the United States Patent and Trademark

Office" on the title, yes.

Q. **And the last page, page 6, there is a signature and a date. Do you see that?**

A. **Yes.**

Q. **That's your signature?**

A. **Yes, it is.**

Q. **And the date is December 18, 2008?**

A. **The date says 12/18/2008.**

Q. **And paragraph 12, if you could direct your attention there.**

A. **Sure.**

Q. **Paragraph 12, that's where you told the Patent Office that the 2003 prototype used a manually movable spigot. Correct?**

A. **Yes, I did. It says "manual and movable."**

Q. **Now, you also earlier today provided some testimony on what looked like some invention disclosure sheets. Do you recall that?**

A. **Yes, I do.**

Q. **And in the binder that Ms. Thomas provided you with, at tab 708 and 709, if you can just confirm, those are those invention disclosure sheets?**

A. **Yes, they are.**

Q. **Now, Mr. Voglewede, you do not have a fixed process for preparing invention disclosure sheets, do you?**

A. **When you say "we," who is "we"?**

Q. **You, Mr. Voglewede, do not have a fixed process that you follow in preparing your invention disclosure sheets. Is that correct?**

A. **From the standpoint of invention disclosure sheets, you are just supposed to fill out -- there is a little tutorial on how to fill out the invention disclosure sheet. So you make sure you get down what the invention is, make sure you get correct all the information that they needed.**

Q. **But you don't have a fixed process, correct?**

A. **When you say "a fixed process," what do you mean?**

Q. **Do you always write them when you write them?**

A. **No, I don't have a specific...**

Q. **DTX-708, if we could turn to that one.**

A. **Sure.**

Q. **I believe you talked about this as the invention disclosure sheet for the extendable tray. Right?**

A. **Yes, that is, extendable tray.**

Q. **And PTX-709, that is a separate disclosure sheet for the water spigot, correct?**

A. **Yes. That is correct.**

Q. **So if we go --**

A. **Water wand and spigot for refrigerator dispenser.**

Q. **If we go back to PTX-708, if you can confirm for me, this invention sheet is only dealing with the tray?**

A. **This one describes the extendable tray, yes.**

Q. **And if you can also confirm on this sheet there appear to be typed dates and handwritten dates. Correct?**

A. **Yes, there is.**

Q. **And do you see, there is a box in the lower left corner. I will ask Mr. Brooks if he can enlarge it. Actually, my laser pointer probably threw you off, Mr. Brooks. If you could just go out and use this lower left corner right here. Thank you.**

Can you see that, Mr. Voglewede?

A. **Yes, I can.**

Q. **Do you see the language, "Witnesses: Preferable those persons to whom the invention was first disclosed"? Do you see that language?**

A. **Yes, I did.**

Q. **That's what you did for this invention disclosure sheet, correct?**

A. **On this one I don't recall. I filled out, like I said, quite a few of them.**

Q. **Do you see "date disclosed" on the left side?**

A. **Yes.**

Q. **And that's in 2003; is that correct?**

A. **Yes, it looks like it, yes.**

Q. **Who are these folks here, the witnesses, signature of witnesses?**

A. **I can't read their signature, unfortunately.**

Q. **Do you know who they are? Do you remember them?**

A. **No, I wouldn't know from that signature.**

Q. **Now, can you please confirm for me that the person here signed on February 3rd, it looks like, 2003, correct?**

A. **I don't know if that's a garbled 3 or a 2 on the front, so I don't know.**

Q. **Whichever it is, it is before the signature above it, correct?**

A. **Yes.**

Q. **So the person that you disclosed the invention to first signed this document second; is that right?**

A. **If that was earlier, yes.**

Q. **And if we can scan back, there is a date of conception that's typed in here. Do you see that?**

A. **Yes, I do.**

Q. **Now, Mr. Voglewede, I believe you indicated that's March 21st, 2001?**

A. **Yes, that's correct.**

Q. **And you will see that there is a date in which this document was submitted. Do you see that, when it was written on? Do you see that date? Maybe we can expand it larger. That might have made it worse.**

Before it looked like June 11th, 2003. Can you make that out?

A. **Vaguely, yes, somewhere around there.**
Q. **You agree there is about a two-year delay between the date that someone typed into this document as the conception date and the date it was actually submitted. Is that right?**
A. **Yes, that would be correct.**
Q. **And when we last met you had no explanation for this delay of two years from the typed date to the date that it was submitted, did you?**
A. **I don't recall the specific testimony. But in this case, yeah, we went back to make sure we got the right conception date when we filed in 2003.**
Q. **You have no explanation as far as how that 3/21/2001 date of conception, where it came from?**
A. **It came from the brainstorming meeting that we had early in the project when we went back to make sure we had all the documentation. One of the things our patent lawyers are very good at is making sure that we have the documentation and can look back as to when we actually invented the items to make sure it's correct.**
Q. **You recall, we talked about that brainstorming session during your deposition, correct?**
A. **It's quite possible.**
Q. **Mr. Voglewede, you do not know where the March 21st, 2001, date of conception came from; isn't that right?**
A. **From this document, March 2001 is when we had the**

development and the concept. It came from working with our patent attorneys to figure out when that specific date of conception was.

Q. Can I direct your attention -- I apologize to have to continue to do this -- to page 598 of your deposition, line 20?

A. Sure.

Q. If you could let me know when you are there.

A. Sure. 598?

Q. Yes, line 20. Are you there, Mr. Voglewede?

A. Yes.

MR. SHARMA: Mr. Brooks, can you please play --

MR. MORICO: Your Honor, if we may have a moment.

THE COURT: Okay.

MR. SHARMA: Your Honor, let me check, too, because Mr. -- I may have the wrong page.

No, that is the right page, 598, line 20.

Mr. Morico, can I proceed?

MR. MORICO: What pages?

MR. SHARMA: 598, line 20.

THE COURT: Mr. Sharma, go ahead.

BY MR. SHARMA:

Q. "Question: There is an invention disclosure sheet, Exhibit 39, for the extendable tray, correct?

"Answer: Exhibit 39, extendable drip tray for refrigerator ice and water dispenser, yes."

Then if we could go to the testimony, I apologize, that is on page 583, lines 11 to 15.

"Question: Do you have any idea how the date of 3/21/2001 was provided for date of conception in Exhibit 39?

"Answer: Since I don't recall when I wrote this up, no, I can't say what I was thinking at the time."

That was your testimony earlier. Right, Mr. Voglewede?

A. **Yes, that's what it shows here.**

Q. **If we could turn to PTX-709, please. Mr. Voglewede, this is the invention sheet for the water spigot and the water wand. Correct?**

A. **Water wand and spigot for refrigerator, yes.**

Q. **And in this invention disclosure sheet there is no discussion about an automatic spigot. Correct?**

A. **I haven't had a chance to read it, since it's been a while ago, so I don't know if it does or not.**

Q. **It's pretty short. Go ahead.**

A. **Sure.**

(Pause.)

A. **On this one it says, "In general, in addition to linear rotary action of water spigots, a concept could also**

be accomplished through the use of a water wand."

Q. **No spring drive mechanism in this invention disclosure sheet, right?**

A. **We don't specifically mention a spring. We don't specifically mention how --**

Q. **And there is no reference to an extendable tray in this sheet, correct?**

A. **No. That is on the previous sheet.**

Q. **You will agree on this sheet as well -- Mr. Brooks, if you could scroll down the sheet -- there are typewritten dates and handwritten dates. Correct? Do you see that, Mr. Voglewede, typewritten dates, handwritten dates?**

A. **Yes, I do.**

Q. **Then you also see that some of these dates are again two years apart. Correct?**

A. **The dates here show the date of conception of 2001 when we invented it, and the date of signatures of June of 2003.**

Q. **That is about a two-year difference. Correct?**

A. **Yes.**

Q. **And you see the language again in that same box, "Witnesses: Preferably those persons to whom the invention was first disclosed," correct?**

A. **Yes, that's preferable, yes.**

Q. **And those signatures are the "date disclosed to" and**

"understood by me" were all in 2003, correct?

A. Yes, that is correct.

Q. As far as this date of conception that is typed here, March 21st, 2001, you don't know where that March 21, 2001, date came from, do you?

A. That came from our brainstorming meeting we had early in the year when I was getting ready for my wedding. So when we started the project.

Q. This is the same brainstorming meeting we talked about at your deposition. Right?

A. Yes.

Q. Mr. Voglewede, if you can please turn to page 596 of your deposition, line 8.

Are you there, Mr. Voglewede?

A. Yes, I am.

Q. Mr. Brooks, if you could play the video, please.

"Question: Do you see date of conception" --

THE COURT: Mr. Brooks, hold on just a second. Go ahead, Mr. Morico.

MR. MORICO: Line 8 through what, counsel?

MR. SHARMA: I believe it's line 8 through 14.

MR. MORICO: That is fine, Your Honor.

"Question: Do you see the date --

"Answer: Yes, I do.

"Question: -- 3/21/2001?

"Answer: Yes.

"Question: Any idea where that date came from?

"Answer: As I sit here today, I -- I don't recall."

BY MR. SHARMA:

Q. **Was that your testimony before, Mr. Voglewede?**

A. **That was when we were doing the deposition, yes.**

Q. **Now, Mr. Voglewede, didn't the idea of the rotatable water spigot exist before you even started working on dispensers in 2001?**

A. **Can you repeat the question? I am sorry.**

Q. **Didn't the idea of using rotatable water spigots exist at Whirlpool before you started working on it in 2001?**

A. **Not to my knowledge, no.**

Q. **One of the documents your counsel talked to you about was DX-392. That would be in one of the binders they provided you with.**

A. **Advanced dispenser CET TDP, is that the one you are referring to? Is that correct? It says June 25, 2003?**

Q. **That's correct, Mr. Voglewede.**

A. **Yes.**

Q. **And Mr. Morico talked to you about this document before?**

A. **Yes, he did.**

Q. **You testified this is a Whirlpool document for**

Niagara. Correct?

A. **This is the Niagara project, one of the tollgate presentations we would have to do over time, yes.**

Q. **If you could turn to the page -- the last three pages, page 305. Do you see the last bullet point, 1997 is dispenser study?**

A. **Yes.**

Q. **Paragraph 2, "Rotate to accommodate large dispensers," it is referring to the nozzle?**

A. **Yes.**

Q. **And it seems like the idea for rotating nozzles long preceded 2001 and your first idea that you believe you came up with. Correct?**

A. **I wouldn't necessarily know that. I don't recall ever seeing that. But essentially, it could be referring to lots of different things.**

Q. **Let's stay within this same document. Let's go to page 299.**

A. **Sure.**

Q. **At the top it's referring to supporting research 1997. Do you see that?**

A. **Yes.**

Q. **Now, if we can take that down, and let's go to the third bullet point. Do you see "a complete dispenser redesign"? "A complete dispenser redesign was proposed for**

the original in-door-ice project but was delayed"...

Do you see the word "delayed"?

A. **Yes, I do.**

Q. **..."due to the added complexity and project risk."**

Do you see that?

A. **Yes, I do see it.**

Q. **So it sounds like there were some delays back in '97 that kept this project from happening. Correct?**

A. **I wasn't on the project at the time. In fact, I was still in my rotational programs at the time. Most likely I was in another division.**

Q. **It looks like, "With IDI now successfully launched, we're focusing on dispenser design innovation."**

Do you see that?

A. **Yes, I do.**

Q. **It looks like Whirlpool wasn't comfortable working on those two projects at the same time. Is that right?**

A. **Through the course of projects you have design choices you need to make. I don't know what time frame this is referring to because the document was written in 2003.**

Q. **So you don't know much about this document. Is that what you are saying?**

A. **It's hard for me to police the context in which it was written.**

Q. **Now, earlier when you were talking to Mr. Morico, you**

were talking about, I believe you characterized it as continuous work by your team on the Niagara project. Do you recall that?

A. **Yes.**

Q. **Let's look at PTX-683. I believe this is one of the documents from the Niagara project.**

If you could bring up PTX-683, Mr. Brooks.

A. **Is that one of yours, in your documents?**

Q. **Yes, it's tab 6.**

A. **Yes.**

Q. **And do you see at page 111, referring to those last three numbers again.**

A. **Is that 611 or 111? I don't see 111.**

Q. **611, I apologize.**

A. **Okay. Yes.**

Q. **Mr. Brooks, is that one able to come up? It's fine if it can't. I just want to know before I continue.**

That is PTX-683.

Mr. Voglewede, do you see the heading "Advanced Dispenser"?

A. **Yes, I do.**

Q. **You see the name Voglewede? That's you?**

A. **Yes, it is.**

Q. **Then do you see the first sentence, "The dispenser project work was shifted in April from technical work to**

concept and consumer benefit work"?

A. **Yes, I do.**

Q. **Is that correct?**

A. **That is correct.**

Q. **And customer benefit work, that is marketing work?**

A. **For this one we had developed a prototype, so we completed the prototype and were helping marketing write the concept statements for the market research.**

So we just helped them with different wordings, and we consult with them.

Q. **That is the market research that is being referred to here?**

A. **Market research that we did in Atlanta and Cincinnati.**

Q. **Let's go to PTX-121, Mr. Voglewede.**

A. **Yes, technology roadmaps and technology planning from September of 2004.**

Q. **Mr. Voglewede, before we need to go through this document, do you recall there were at least seven different marketing events for the Niagara project?**

A. **I know we did different marketing, so I don't recall the specific number, but I know we did specific marketing when we worked on it continuously from 2001 to 2005.**

Q. **Can you turn to page 678 in this document, please?**

A. **Sure.**

Q. **On the left side of the page, it talks about a minimum**

of seven major consumer activities. Do you see that?

A. **Yes.**

Q. **And it looks like from these consumer activities there is something at the bottom of the page. Do you see that?**

A. **Yes, I do.**

Q. **"Consumers get with [redacted] percent willing to pay more than [redacted]**

Do you see that?

A. **Yes, I see that. They are referring to all the different features you see in the middle box there in 2005.**

Q. **That's preferred over in-door-ice. Is that right?**

A. **It states here -- I don't remember writing that. But, yeah, it says it's preferred over IDI. In general, it's talking through the -- it looks like about 12 to 13 different features.**

Q. **And IDI, that's the '130 patent. Correct?**

A. **I don't know the specific patent number. I didn't work on IDI, so...**

Q. **And the company that would help Whirlpool with its market research, that was Smith-Dahmer. Correct?**

A. **Smith-Dahmer did a lot, not necessarily all our market research, but a lot of our market research at that time.**

Q. **And you will agree with me that market research is not engineering research. Right?**

A. **I don't know what your distinction is, but in general,**

market research is where we get consumer input so we make sure we have a good design for the consumer.

Q. Mr. Voglewede, is marketing research engineering research, or are they different?

A. I don't know how to distinguish them. I just refer to them as market research when we go out to talk to consumers.

Q. And I am talking about Smith-Dahmer's work.

A. Yes, Smith-Dahmer is one of the firms that we use.

Q. Mr. Voglewede, if you could turn to page 334 of your deposition, please.

A. Sure.

Q. I am directing you to line 16. Are you there?

A. Which line?

Q. Line 16.

"Question: Is this marketing research or engineering research?

"Answer: This would be marketing research, Smith-Dahmer."

Did I read that correctly?

A. 336?

Q. 334.

A. 334, I am sorry.

Yes.

Q. Mr. Voglewede, market research did not teach you how to design the extendable pull-out tray, did it?

A. **Market research like other research was what we used as one of lots of different factors we used to help get input for the project.**

Q. **Did you learn how to create the designs for the project from market research, Mr. Voglewede?**

A. **Like I said, marketing research would just be used to get feedback from the consumer so we could help the project.**

Q. **Did you learn how to design --**

A. **I learned that in school.**

Q. **So it wasn't from the marketing research. Correct?**

A. **Market research would help, but it wouldn't necessarily -- consumers don't necessarily tell you how to design a refrigerator.**

Q. **Mr. Voglewede, market research is not for telling you how to design refrigerators. Correct?**

A. **It's one of the tools we use to get input for the project. That's how I characterize it.**

Q. **Mr. Voglewede, if we can go to page 309 of your deposition, line 18.**

A. **Sure.**

Q. **"Question: As part of this market research in February of 2003, did you learn how to design the pull-out tray?**

"Answer: Did I learn how to design? No. That's what -- market research is not for that."

Did I read that correctly?

A. **I am sorry, I didn't see which line you were on.**

Q. **I apologize. Page 309, line 18 to 22. We can play it for you if it's easier. Would you like me to play the video, Mr. Voglewede?**

A. **No, that's fine. It says that.**

Q. **Now, your counsel presented you with documents, and I have tried to separate out the ones where I could tell rather quickly that it was marketing research, Smith-Dahmer-type documents.**

A. **Yes.**

Q. **To your recollection, would this be about the right stack (indicating), maybe more? I tried my best, but I didn't have a lot of time. I can give you DX numbers.**

A. **I think it's in the back of one of the volumes.**

Q. **The ones that I was able to locate quickly were DX-372, 644, 643, 642, 658, 638 --**

A. **They are probably split across a couple different binders, but there are some that are collated in the back of this one.**

Q. **Then there is also 559, 454, 453, 512, 513. Just from your recollection of your work on the project, does that sound about right for at least that many different marketing documents in those binders?**

A. **We would also refer back to older market research as**

well to gain insight. It depends on which ones were generated. Yeah, there is multiple market researches that we did on the project.

Q. **And market research is not engineering research. Correct?**

A. **Like I said before, I don't necessarily distinguish between engineering and marketing. Marketing research is where we went to the consumer to get input.**

Q. **Mr. Voglewede, when did Whirlpool start making Kenmore models with automatic spigots?**

A. **I don't know the exact date when we launched them. Like I said, in 2004 is when the advanced development handed off to engineering to implement different variations. One of the variations that we had was for Kenmore.**

Q. **So you don't know when Whirlpool first made the Kenmore models with the spring mechanism that Kenmore sells today?**

A. **It was in the 2005-2006 time frame.**

Q. **Somewhere in that 2005-2006 time frame?**

A. **Yes.**

Q. **Let's go to PTX-67.**

A. **Which number?**

Q. **67.**

A. **67, okay. Thank you.**

Q. **This is another Whirlpool document for Niagara. Is**

that right?

A. It says a TDP review, although it has an odd tag line. It says "tax day."

Q. I think it's indicating that it's a very memorable day. I think that's the day taxes are due.

A. Yes.

Q. Do you see the date April 15th, 2004?

A. Yes.

Q. Mr. Voglewede, let's turn to page 52 -- I apologize. Let me give you the last three numbers. Page 271 of the document.

This is a 2004 document, correct?

A. This is one of those design preview teams, yes, CET, which is concept evaluation tollgate, which our engineering team took over.

Q. Do you see at the bottom, "Kenmore," do you see that at the bottom? Do you see the last bullet point?

A. Yes.

Q. That's when Kenmore requested that the rotating spigot be spring-loaded. That was the 2004 request to Whirlpool. Correct?

A. I don't know when they requested it. It's just documented here in this document that says they did request it. They requested a slightly different execution.

Q. Whirlpool didn't start making them for Kenmore until

2005-2006, right?

A. **2005-2006 is when we commercially started making the refrigerators for Kenmore.**

Q. **Mr. Voglewede, have you filed any patents at the U.S. Patent and Trademark Office where you have represented that it's an invention to have a retractable water spigot with a spring mechanism?**

A. **When we get all the IDS's together to be given to the patent lawyers, we give them to the patent lawyers and they create the -- let's say the patent applications. It's been a while since those -- probably 20 or 30 since then, so I am familiar with specifically all the different claims on that specific patent right now.**

Q. **Mr. Voglewede, is it your understanding that Whirlpool's expert, Dr. Karvelis, is saying that there is prior art out there from Europe and Korea that invalidates a claim that goes to a movable water spigot that uses a spring mechanism?**

A. **I am not familiar with what Dr. Karvelis's testimony is or any kind of stuff he has put together.**

Q. **Mr. Voglewede, I have got a tab back here, it's PTX-743. It's your last tab.**

A. **743-A? Is that the one?**

Q. **That's the one.**

Let me just make sure I have the full document

here. One second.

MR. MORICO: Your Honor, could we have a sidebar briefly?

THE COURT: Okay.

(The following took place at sidebar.)

MR. MORICO: Your Honor, counsel is about to go into whether that claim is patentable to Whirlpool and whether rotatable spigot with a spring --

THE COURT: He says you are reading his mind incorrectly.

MR. MORICO: I am basing it on deposition testimony.

THE COURT: Why don't we see what Mr. Sharma indeed intends. Go ahead.

MR. SHARMA: Your Honor, I just want him to show me that's his signature and it's his application.

MR. MORICO: I am fine with just that.

THE COURT: I am glad to hear that.

(End of sidebar conference.)

BY MR. SHARMA:

Q. **Mr. Brooks, if you can go back to PTX-743.**

Mr. Voglewede, can you confirm, you were talking before with Whirlpool's counsel about a patent, an '085 patent. If you can just confirm that is the same patent number there?

A. **There is a 7455085. I can't remember which one that refers to.**

Q. **If you could turn to page 49, Mr. Brooks, of this application.**

Mr. Voglewede, I would just like you, if you could, just to confirm for me that this is your signature down here at the bottom.

A. **That's my signature, yes.**

Q. **And then if we can expand it. This is a declaration and power of attorney in this patent application. Is that right?**

A. **That's what it states. I am not familiar with legal documents like that.**

Q. **And it indicates here that you believe you are an inventor of what's claimed in this patent application. Is that right?**

A. **Like I said, I am not familiar with the patent law documents.**

Q. **Mr. Voglewede, did you read this document before you signed it?**

A. **When did I sign this, in 2004, six years ago? I am sure I would have looked at it at that time.**

Q. **So at the time you signed it, you believed that you were an inventor of what was being claimed in this patent application. Correct?**

A. **Yes. I have quite a few patents, so...**

Q. **And you believed it to be an invention at the time you filed the application. Correct?**

A. **It says first and sole inventor.**

MR. SHARMA: Thank you, Mr. Voglewede. No additional questions.

THE COURT: Redirect, Mr. Morico?

MR. MORICO: Just a few additional questions.

REDIRECT EXAMINATION

BY MR. MORICO:

Q. **Mr. Voglewede, you heard Mr. Sharma ask you questions about the combination of a rotatable spigot and a pull-out tray? Do you recall approximately when you put those two things together?**

A. **When we came with the project, it was a project to do an advanced dispenser, so when we came up with all the features, the idea of all those would be what would be the good combination for the consumer that would provide good value. So we were thinking about an actual dispenser. We weren't thinking about trays or spigots separately. We were designing an advanced dispenser.**

Q. **Would the idea of having those two together carry through the project?**

A. **Yes, they were, including for when we -- including when we launched them.**

Q. **If you can turn to tab 9, which I believe both myself and Mr. Sharma questioned you about, it's DX-0392. If you can turn to page 273 of that document.**

Mr. Roberts, if you can put that document up, please.

A. **273?**

Q. **273, correct. Tab 9 in the binder I gave you. You probably have a lot of binders up there by now.**

A. **Yes.**

Q. **Do you see under "May 2002 Qualitative"?**

A. **Yes.**

Q. **Is the water spigot or water wand and the extendable tray listed under that column as of May 2002?**

A. **Yeah, there is a lot of features. We have water wand and extendable tray, the second-to-last one that we were looking at in 2002.**

Q. **Did those two features carry through in January of 2003?**

A. **Yes, they do. In fact, they are next to each other.**

Q. **Do they carry through again in June of 2003?**

A. **June of 2003, yes, they are there as well.**

Q. **And how about in 2005?**

A. **In 2005, we have extendable tray and water arm next to each other again.**

Q. **Mr. Voglewede, if you can turn back to tab 1 in the**

binder that I had given you and refer to DX-0283 and turn back to that for a moment.

A. **Yes.**

Q. **You heard a lot of questions from Mr. Sharma about the date conception versus the date of the signatures that were on that document.**

A. **Yes.**

Q. **Do you have any reason to believe that the date of conception that's shown there on March 21st of 2001 is incorrect?**

A. **No, I don't.**

Q. **Did you have any reason in 2003 to back-date this document?**

A. **No reason.**

Q. **Mr. Sharma asked you a lot about what happened in terms of delays, or delays that may have happened in the 1997 time frame. Were there any delays in bringing the advanced dispenser project to market between 2001 and 2005?**

A. **No. It was pretty continuous. If anything, it really accelerated with all the different brands that wanted it. So it actually got quite large by the end.**

Q. **Do you recall Mr. Sharma showing you a stack of about 20 or so documents that related to marketability studies and how they compared to the other development documents that were in front of you?**

A. **Yes.**

Q. **Do you recall that stack being about 20 or so documents? Is that about accurate?**

A. **Yeah, give or take.**

Q. **And how many tabs are in volumes 1 and 2 of binder set 3?**

A. **This one goes through 119.**

Q. **How many tabs are in binder set 1?**

A. **Binder set 1 goes from 1 through 72. Then the next one goes from 73 to 119.**

Q. **What about binder set 1, the first binder that has the invention disclosure document in there, how many documents are in that?**

A. **Well, there is nine tabs and there is multiple documents in each of those tabs. So probably at least 20 to 30 additional.**

Q. **So we are talking about the marketability studies were about 20 out of the 140, 150 documents before you?**

A. **Yeah. There is also another probably 30 or 40 in here, so, yeah, at least that.**

MR. MORICO: Thank you very much, Your Honor. I have no further questions.

THE COURT: Thank you, Mr. Voglewede. You are excused.

MR. PARTRIDGE: Your Honor, given the hour, I

have a suggestion to make efficient use of our time before our lunch break. I would like to play the deposition of one of the witnesses that the witness identified, Mr. Donner, who was a Sears employee at the relevant time. He is currently an employee of Electrolux Major Appliances. It's about a ten-minute video clip. I think this is a good time to do it. Let's wait until Mr. Voglewede -- Mr. Voglewede, you can leave all of that there. You don't have to carry all of that.

(Witness excused.)

(Deposition played as follows:)

"Question: Mr. Donner, by whom are you employed?

"Answer: Electrolux Major Appliances.

"Question: And how long have you been with Electrolux?

"Answer: Approximately one and a half years.

"Question: All right. Before joining Electrolux by whom were you employed?

"Answer: LG Electronics.

"Question: And how long were you employed by LG?

"Answer: Two years and three months.

"Question: Prior to joining LG where did you work.

"Answer: Sears Roebuck.

"Question: And how long were you at Sears?

"Answer: I started in October 1995 until the end of April 2005.

"Question: When did you start working on refrigerators while at Sears?

"Answer: I believe it was early in 1998.

"Question: Did you continue working on refrigerators until you left in 2005?

"Answer: Yes.

"Question: Were you working with any trade partners in connection with the refrigeration products that you were developing at Sears?

"Answer: Yes.

"Question: And who were the trade partners you worked with at that time?

"Answer: I had worked with Whirlpool, General Electric, Frigidaire, LG, Heier. I believe, I believe that's all of them.

"Question: All right. I want to take you -- well, I'd like to talk about your work with Amana. Was there a time when you worked on a French door bottom mount, and I'm talking about your time at Sears, that Amana was working on a French door bottom mount design that it was going to OEM for Sears?

"Answer: Yes.

"Question: Did any other refrigerator manufacturers have a French door bottom mount in the market at that time? And I'm focusing my discussion in the United States.

"Answer: I do not believe so.

"Question: All right. So the French door bottom mount that Amana was going to OEM for Sears that you worked with Amana on to your knowledge and understanding was the first French door bottom mount refrigerator that was going to be sold in the United States?

"Answer: I cannot speak to the history of bottom freezers and their designs, so I do not know, but for that time phrase, yes, it was going to be unique.

"Question: Do you recall having meetings with Amana during the development of that French door bottom mount refrigerator?

"Answer: Yes.

"Question: Do you recall having meetings on approximately a monthly basis with Amana in connection with the development of that French door bottom mount refrigerator?

"Answer: I do not recall if it was monthly, but we did have -- we did have several meetings with them.

"Question: Turning to the side-by-side

refrigerators, were you at Sears -- were you at Sears at the time that Whirlpool introduced its ice and water dispensing system where the ice bin was mounted on the door?

"Answer: Yes.

"Question: Did there come a time when Whirlpool was OEMing a side-by-side refrigerator under the Kenmore brand that had that feature?

"Answer: Yes.

"Question: To your knowledge, was Whirlpool the first refrigerator manufacturer to introduce the feature of having an ice bin mounted on the door?

"Answer: To my knowledge, yes.

"Question: Any other refrigerators with unique features that Whirlpool was looking at introducing at Sears that come to mind?

"Answer: I was working with them on a timed dispense for side-by-sides.

"Question: All right. There's another feature that you didn't mention that I'd like to chat with you a little bit about.

It's a feature that involves the ice dispenser. It involves a tray which pulls out. Are you familiar with that feature at all?

"Answer: The tray below the dispenser housing?

"Question: Yes.

"Answer: Yes.

"Question: And there is also another related feature where the water spigot has the ability of either rotating out or otherwise extending out from the planing of the refrigerator. Are you familiar with that feature as well?

"Answer: Yes.

"Question: Were those two features features that Whirlpool was developing during your tenure at Sears?

"Answer: Yes. I included in my mind those with the time dispense --

"Question: I see.

"Answer: -- category.

"Question: That side-by-side refrigerator that we've talking about, the one that Whirlpool ultimately secured a three-year contract with Sears to OEM, did that side-by-side refrigerator have the extendable tray feature?

"Answer: As I recall, that was a development feature not yet in place but pursued or being pursued between the two organizations.

"Question: Did the side-by-side refrigerator that Sears ultimately decided to go with have the rotatable spigot feature?

"Answer: No. As I recall, that was pursued for future launch.

"Question: So the units that you were doing the comparative testing for if you will for purposes of deciding which side-by-side model for Sears to go with for the next three years, is what you're saying that the Whirlpool side-by-side refrigerator had the ice and water feature where the bin was mounted on the door, but it did not have the extendable tray or the rotatable spigot?

"Answer: My recollection is the in-the-door ice feature was already well-established in the marketplace in the side-by-side configuration, and the innovation pursuits, which the rotating spigot, the formed door, the time dispense and the pullout tray were after this sourcing decision was already made. It's in the future that you're working towards these innovations, product changes.

"Question: All right. Turning back then to the competitive refrigerator that LG was submitting to Sears at that time, did it have -- and I'm talking about the side-by-side -- did it have an extendable tray feature?

"Answer: I don't recall it having that.

"Question: Did it have a rotatable spigot?

"Answer: I don't recall it having that:

"Question: What were the discussions with Mr. Sharma in connection with the rotating spigot patent?

"Answer: What do I recall of the design as to how it operated, and I also offered that it was a timed-fill

approach that was being incorporated as well.

"Question: Did you have any discussions with him as to whether Whirlpool or LG was the first to come up with that feature?

"Answer: I don't believe we, we had those discussions.

"Question: Do you have any views on that subject?

"Answer: Opinion?

"Question: No. Facts actually.

"Answer: When I was with Sears, it would appear that from trade partners coming to us that was an innovation that Whirlpool was working on, not knowing what others in the industry may be working on at the same time."

MR. PARTRIDGE: Your Honor, again, we have a short counter-designation of what I think is 20 seconds.

THE COURT: All right.

MR. PARTRIDGE: This is LG's designation:

"Question: And do you recall roughly the time frame when that was?

"Answer: I do not recall when it -- what the time frame was. I do recall working on a French door bottom mount with Amana.

"Question: All right.

"Answer: To come out under the Kenmore name or

Kenmore Elite name at the time."

THE COURT: All right. We will resume at 2:00.

(Juries leaves courtroom at 12:55 p.m.)

(Luncheon recess taken.)

THE COURT: Okay. Ms. Walker.

MR. COYNE: Your Honor, while the jury is coming in, just very briefly, Mr. Taylor is not able to attend today and tomorrow. I have talked to opposing counsel. If Dr. Lee finishes, so that he is no longer set to be called again as a witness, we have agreed that he may come up to counsel table for the conclusion of the proceedings. But we will not bring him up until he is done.

(Jury enters courtroom 2:02.)

THE COURT: All right, ladies and gentlemen. We will proceed.

Mr. Morico?

MR. COYNE: May I?

THE COURT: Yes.

MR. COYNE: Ladies and gentlemen, I just wanted to let you know that Mr. Taylor will not be able to attend this afternoon or on Friday. We may have another representative at the table at some time. But he will be back on Monday. And I just wanted to let you know that that was coming up. Thank you.

THE COURT: Okay. Mr. Morico?

MR. MORICO: Thank you, Your Honor.

Whirlpool would like to call as its next witness Dr. Albert Karvelis.

... Albert Karvelis, having been duly sworn as a witness, was examined and testified as follows ...

DIRECT EXAMINATION

BY MR. MORICO:

Q. **Good afternoon, Dr. Karvelis.**

A. **Good afternoon.**

Q. **Dr. Karvelis, have you been retained by Whirlpool as an expert in this case?**

A. **I have.**

Q. **What issues are you here to testify on?**

A. **Validity issues of the subject patent.**

Q. **We will talk about your opinions in a moment, Dr. Karvelis. I would like to go into your background a little bit.**

Can you tell us something about your education?

A. **Yes. Growing up in Detroit, I went to University of Michigan for my Bachelor's and Master's degree in aerospace engineering.**

After a tour of active duty in the United States Navy, I was appointed a NASA fellow and went to Penn State University, where I also was in the mechanical engineering department. I was in the engineering acoustics program, and

received a Ph.D. in 1975 for my work in aero acoustics of flow through enclosed orifices.

Following that, I worked on the opposite side of the classroom. I was an adjunct professor of mechanical engineering. I sat on advisory boards and industrial liaison boards of MIT, Purdue University, the University of Iowa. I taught safety and ethics for a number of years in graduate courses in mechanical engineering.

Q. **Can you, Dr. Karvelis, briefly describe your employment history since receiving your doctorate in 1975?**

A. **Since receiving it, I went to Trane Company. My first job was in heating, ventilating, and air conditioning. Trane Air Conditioning, that was the company I went to first.**

Q. **How long were you there at first?**

A. **I was there for just over two years.**

Q. **After two years what was your next engagement or employment?**

A. **After Trane I went to Babcock & Wilcox. They make primarily power generation equipment, nuclear reactors, et cetera.**

Q. **How long were you with Babcock & Wilcox?**

A. **I was in the mechanical engineering laboratory for about five years.**

Q. **And so this would take us to about the early 1980s.**

Is that about right?

A. **Correct.**

Q. **Where did you next go after leaving Babcock & Wilcox?**

A. **I went to Borg Warner Corporation, their technical center in Des Plains, Illinois, where I ended up heading up the mechanical engineering department.**

Q. **How long were you with Borg Warner?**

A. **I was with Borg Warner until the very end of '88.**

Q. **It was about eight years. Does that sound about right?**

A. **Correct.**

Q. **Where did you next go after leaving Borg Warner Corporation?**

A. **After Borg Warner Corporation I went to Packer Engineering, where I became the senior vice president there. That is an international consulting and testing firm. I was there until retirement. About 20 years.**

Q. **In approximately what year did you retire from Packer?**

A. **2008, at the end of 2008, towards the end of 2008.**

Q. **Are you currently employed?**

A. **Yes, I am.**

Q. **By whom are you employed?**

A. **Exponent.**

Q. **Dr. Karvelis, have you received any awards in your field?**

A. **In addition to being named NASA fellow back in the '70s, I was recently awarded a fellow in the American Society of Mechanical Engineers, in recognition of my contributions to the field of engineering.**

Q. **How many members of ASME, the American Society of Mechanical Engineers, are awarded with the distinction of fellow?**

A. **Less than one-half of one percent.**

Q. **Dr. Karvelis, do you have any technical experience in the area of home appliances?**

A. **In the area of appliances, I probably have worked on almost every home appliance, ranging all the way from vacuum cleaner studies to coffee makers to microwaves, et cetera, washing machines, for manufacturers.**

Q. **Do you have any technical experience in the area of residential refrigerators?**

A. **In the area of refrigeration, obviously, heating, ventilating, and air conditioning is refrigeration, the air conditioning.**

Most of my work has been, as most engineers, repairing your own refrigerator. But I have also done extensive work with what I call custom refrigerators.

Q. **Can you describe those briefly?**

A. **These are refrigerators that are typically waste-high. They make ice. The refrigeration and ice, they make ice,**

too. You find them on RVs. There are refrigerators on RVs, in boats, in restaurants, in bars behind the counter. You do find them in homes, but not usually in the kitchen. Their usually in other parts of the homes. And they are usually built in.

But they have the same characteristics that the stand-up kitchen refrigerator has.

Q. Have you ever done any work for an appliance manufacturer, such as Whirlpool or LG, in your career?

A. Yes, I have. When I was at Packer Engineering, periodically I would get calls from General Electric, their appliance park is where they make their appliances. When they had a very severe problem, they needed good help and they needed intense testing and analysis, they would come to me and I would help them with their problems on new product launches and things like that with their appliances.

Q. Dr. Karvelis, do you have any experience, technical experience, with mechanical drive mechanisms?

A. Yes. I have worked for over 20 years in machinery and mechanical drives. Borg Warner made the transmission that I worked for in the Camaro and the Ford 150 pickup truck. The work resulted in -- that work and other work that I have done in mechanisms, Mars Lander, resulted in my being named as chair of the American Society of Mechanical Engineers' Power Transmission and Gearing Committee head and also chair

of international conference, the international conference on power transmission and gearing, as educator and chair.

Q. Dr. Karvelis, do you have any other experience relevant to LG's '121 patent at issue here?

A. Well, I think I have also worked at a -- in my capacity in particular with the Herrick Laboratories at Purdue University. People in the appliance industry would work on industry and -- industry and the university cooperative programs and do the research on appliances many times. And I sat on the advisory board for a couple of years. I got to see the people that come into and out of the appliance field.

I will also read, while at Trane Air Conditioning at York, Borg Warner Division, I would be able to read the appliance magazine, the technical magazine, because all appliances are covered, including refrigerators, in that magazine.

Whirlpool, by the way, was part of the Herrick Laboratories support group.

Q. Do you have any prior experience in analyzing patents, Dr. Karvelis?

A. Yes.

Q. Could you briefly describe what that experience is?

A. When I left active duty in the Navy, I stayed on in the active reserves, working for the Office of Naval

Research. When I was trained with the Office of Naval Research in patents, what they are, whether they are valid, what technology merits patenting, then I was sent out after the training to Midwestern universities to audit them for their technology, whether they should or shouldn't patent, et cetera.

The other activity was Borg Warner. I sat on the patent committee. What the patent committee does, among other things, is it takes a look at the ideas that the engineers submit. We evaluate whether they should be pursued for a patent or not, whether we should spend the money for pursuing it. We look at infringement issues, look at issues whether our products could or could not infringe other patents.

So all of the -- the whole ball of wax, basically.

Q. **Dr. Karvelis, have you ever been qualified as a technical expert by any court before?**

A. **Yes, I have.**

Q. **How many times?**

A. **I guess around 30 to 40.**

MR. MORICO: Your Honor, we tender Dr. Karvelis as an expert in the technology relevant to the '121 patent.

MR. COYNE: No objection, Your Honor.

THE COURT: We will accept the Doctor as an

expert in that field.

BY MR. MORICO:

Q. **Were you present in the courtroom while Dr. Voglewede testified as to the key milestones in the development of the advanced dispenser?**

A. **I was.**

Q. **Mr. Roberts, can you put up that timeline?**

Are you aware that Whirlpool has contended in this case that it invented the subject matter of the '121 patent before LG did?

A. **Yes.**

Q. **Do you have any opinions on this subject?**

A. **I do.**

Q. **Can you very briefly state what that opinion is?**

A. **The bottom line is Whirlpool invented it first. Whirlpool reduced it to practice first, the subject matter that is in suit here today.**

Q. **Dr. Karvelis, can you explain what you reviewed to arrive at your opinion that Whirlpool developed it first?**

A. **The first, in addition to reading and understanding the asserted patent, et cetera, I looked at, compared the two timelines. I looked at the upper timeline, which is the timeline that Whirlpool has. And then from the documents and the testimony that both LG and Whirlpool had, I was able to build a timeline on the bottom, which would be LG's**

timeline.

Q. **When you said "the testimony," what testimony of LG did you listen to?**

A. **Well, I read Dr. Lee's testimony and also was present when he testified here.**

Q. **Did you review any Whirlpool development documents in connection with reaching this opinion?**

A. **I read all documents on both sides, yes.**

Q. **Can you help construct, if you will, the relevant dates that you relied on in arriving at your opinion? I am speaking specifically about the LG development dates. I believe I heard you say something about conception. Is there a date of conception you are relying on for LG which was relevant to your opinion?**

A. **January, I think it was the 28th, 2003. That's the first official document which supports the conception date. And that's also consistent with Dr. Lee's testimony.**

Q. **And can you refer to tab 8 in your binder, which, for the record, is PTX-0348? Is that the document to which you just referred?**

A. **Tab 8. Yes, it is.**

Q. **And are you relying on any documents or testimony or other information in connection with the reduction to practice date you referred to? And I am referring specifically to LG's reduction to practice date.**

A. **There is testimony and another document which is September 17th, 2003, that I did have summarized. LG's document that has that date on it.**

Q. **If you could turn to tab 3, which, for the record, is DX-0742? Is that the document you are relying on for purposes of concluding that LG's reduction to practice was in September of 2003?**

A. **Correct. In the third line or second line, it says, "Reduction to practice." If you follow that all the way over, you get to September 17th, 2003.**

Q. **Are there any other dates that you considered in connection with your analysis of determining that Whirlpool invented it first?**

A. **Yes, there is. If you tell me the tab number for the patent, I can look up the dates there on the '121 patent.**

Q. **If you can turn to tab 1, I believe you will find it there.**

A. **There are two dates that I am looking at on the cover page of the patent. On the upper right-hand corner is the issue date, January 8th, 2008. And then off to the left, in the upper third, it says, "Filed April 28, 2004."**

Q. **Mr. Roberts, if you can just put up the timeline again.**

Does this timeline that is shown here, Dr. Karvelis, reflect the relevant milestones of both LG and

Whirlpool that you considered in connection with arriving at your opinion?

A. **Correct. And one can see that Whirlpool was first to conceive. Whirlpool was first to reduce to practice. And that one-two combination is what allows me to conclude, based on the testimony, the timeline, and all the documents, that Whirlpool invented the subject matter first.**

Q. **Dr. Karvelis, did you review any documents between the March 2001 and the May 2003 time frame, any Whirlpool documents during that time frame?**

A. **Certainly. There were measured in inches, if not feet, of documents that were independent of the testimony. They were documents that talked about the evolution of the advanced dispenser prototype. Yes, I did.**

Q. **Dr. Karvelis, what is the significance of your determination that Whirlpool invented it first?**

A. **Well, what's important, the way I have been taught, is that if you -- to determine which is the prior art is the date which is the date of conception in the United States, then it becomes prior art. That means this -- if you have something before that time period, or the filing date, the one-year filing date, then this becomes prior art. Then you need to consider that, then this becomes prior art.**

Q. **Do you have any opinion, Dr. Karvelis, as to the validity of the asserted claims in this case?**

A. **I do.**

Q. **What is your understanding of what the asserted claims are in this case of the '121 patent?**

A. **I think there is a tab here somewhere, that there is 20, 21, and 36, if I remember correctly, without looking at the documents.**

Q. **Can you briefly state what your opinion is in connection with those three claims on the issue of validity?**

A. **Fundamentally, it's that those three claims are invalid in light of the prior art and/or the combination of the Whirlpool dispenser and Kim.**

Q. **Can you briefly describe what you did to arrive at that opinion?**

A. **Yes. What I did is, once I have the advanced dispenser prototype information, I then took a look at the claims. And I looked to see whether the claims have the required -- whether the advanced Whirlpool prototype has the elements that are required in the asserted claims.**

Q. **Did you review the file history at all in connection with your study?**

A. **Certainly. In the process of studying the documents, you have to study the patent and the prosecution history; that is, the history of the conversation between the inventors' agents, and the United States Patent Office. Yes, I studied those documents.**

Q. **Can you refer to tab 2 in your binder, which, for the record, is DX-0537? Can you confirm for me that that is the file history for the '121 that you reviewed in connection with your analysis?**

A. **Yes, that's the record of the file history.**

Q. **You mentioned a Kim patent. If you can turn to tab 4, which, for the record, contains a document which is DX-0569. Is that the Kim patent that you were referring to?**

A. **Yes, sir.**

Now you have the translated version.

Q. **Do you know when that patent published?**

A. **Let me find it here. The publication date is in the upper right-hand, right there. The publication date is May 15th, 1999.**

Q. **Did you make any determination as to whether the Kim patent was prior art?**

A. **Yes, it is also prior art, because it is a publication that is made more than one year prior to the filing date. That is the way I was taught to qualify something for prior art.**

Q. **Dr. Karvelis, did you determine what the level of skill was in connection with your analysis?**

A. **Yes, I did. As part of it, yes, the claim terms and a person of ordinary skill in the art.**

Q. **How did you define that person?**

A. **I defined that person, with respect to the technology at issue here and the patent, as a person with two to five years, an Associate degree, two-year Associate degree, two to five years of experience in the design, the testing, and the repairing, maintenance of appliances and refrigerators.**

Q. **Was there --**

A. **Or equivalent.**

Q. **Was there a time frame for which you applied that person of ordinary skill in the art?**

A. **Yes. You have to look at it at the time that the -- the way I was taught -- at the time of the filing of the '121 patent. However, my finding was that the technology at issue in general is extremely -- the mechanical portion is extremely primitive and old.**

Q. **Can you, Dr. Karvelis, please explain for the jury the basis for your opinion that Claim 20 is invalid?**

A. **It's probably best done -- you have to do it by going through, quote, a claim chart or claim analysis.**

Q. **Did you prepare such a claim chart in connection with your engagement in this case?**

A. **Yes. It is derived from my reports.**

Q. **Do you have some slides today in which to help us walk through that analysis?**

A. **I believe that you have them on the machine. I think I have them here.**

Q. **If you need to refer to either the binder or the screen, whatever will assist you in making that determination.**

A. **Maybe I will stay on the screen.**

Q. **If you could just step us through, Dr. Karvelis, how you concluded that the elements of Claim 20 were met.**

A. **Okay. The first thing is, there is the patent, the '121 patent that the people have referred to here in the past. There is the title.**

So let's look at the asserted claims, which are 20, 21, and 36. We have heard how we have to go through 10 in order to satisfy 20. So let's go forward.

These are the words. That's the claim. Those are the -- every required element has to be met if we are going to get to the validity issue.

The first one is "dispenser for an appliance comprising." It is clear this is directed at an appliance. It doesn't have to be a refrigerator. What we did is looked at the -- first, we looked at the first picture here. This is of the advanced prototype dispenser. It is, indeed, a dispenser for an appliance. So we have now met that element and can cross it off.

Q. **Dr. Karvelis, were you here during Mr. Voglewede's testimony about that prototype?**

A. **Yes, I was. I was in the back.**

Q. **Do you recall him mentioning whether that advanced dispenser, what's pictured there, was used in a working refrigerator?**

A. **Yes.**

Q. **Can you continue with the next element?**

A. **Sure. The next element is "a water-dispensing assembly configured to move." Pretty straightforward. There is the motion shown. Again, this is an original photograph that was provided by Mr. Voglewede. And there is the arrow indicating the motion.**

So that element has been met. And Mr. Voglewede also testified they actually dispensed water from it.

Q. **Next element?**

A. **The next element says, "Such that an outlet of the water-dispensing assembly is positioned outside an outer surface of a door of an appliance in at least one position of water-dispensing assembly movement."**

So it has to have at least one movement and in that movement it's got to be outside the door.

So here we have a photograph, again. We see the water outlet. I don't have a -- but I don't think I need it. I will do without it.

Q. **Can you just refer to the picture?**

A. **Sure. In the second, it shows the water outlet. There is the outer surface. We have that element. We can**

see clearly that it's outside the door.

Q. Dr. Karvelis, in the left-hand side picture, is the water outlet outside the door in that picture?

A. No. In that picture, this is the -- it is within, it's in back of the door. And by pressing that button, that's just -- could you shoot the arrow into the depression?

Q. Dr. Karvelis, I actually have a light for you, if it would help.

Your Honor, may I approach the witness?

THE COURT: You may.

MR. MORICO: Thank you.

THE WITNESS: Thank you.

Here we go. There is that depression. You push on here, you can get it to swing all the way out beyond the door.

BY MR. MORICO:

Q. So when the outlet is in that position on the left, it's not outside the door. Is that what you are saying?

A. That's correct. It's within, it's behind the door, the outer surface of the door.

Q. What about the next element of the claim?

A. So we can cross that off, because that's clearly present in the advanced prototype dispenser.

Now we go to the next element, which says, "A

container support configured to extend along a plane perpendicular to the door such that the container support is configured for movement between a withdrawn and an extended."

So we have got something there that is required to be perpendicular to the door and it's got to move in and out, and it's got to move out beyond the door.

There is that picture again. There we see the container support in Whirlpool's advanced prototype dispenser. And there it is, extended, exactly as the claim element requires.

We have now met that element.

Q. **What about the next element?**

A. **We can cross that off now.**

The next element is "A container support being configured to, in the extended position" -- so we are talking about out, when it's extended -- "to support a container being filled by the water-dispensing assembly when the outlet of the water-dispensing assembly is positioned outside an outer surface of the door."

So the support has to hold something when it is being filled and the nozzle is outside the door, beyond the door.

We don't have a photograph of that, but you can see that that is exactly what will happen if you take the

Pyrex jar and move it in that position. And we already have testimony from Mr. Voglewede that, in fact, they did discharge the water from the extended -- beyond the door while a container was being held by the support.

So we have that element. Now we have met all of the requirements of 10.

Now we get to the first --

Q. **Go ahead, finish, I am sorry.**

THE COURT: I think he finished.

BY MR. MORICO:

Q. **I am sorry. Dr. Karvelis, we just went through all the elements of Claim 10. You have concluded, if I understand your testimony, that the advanced dispenser met all the elements of Claim 10. Is that what you are saying?**

A. **Well, I am saying that all of the required elements are absolutely present in the advanced prototype dispenser.**

Q. **Could you explain how you reached that conclusion, when the Patent Office granted Claim 10 to LG?**

A. **Well, I studied the prosecution history, which contains a record of all of the deliberations and what the Patent Office studied. And the Patent Office didn't have -- am I breaking up?**

THE COURT: You can move it out of your way if you want.

THE WITNESS: Can you hear me?

The United States Patent Office did not have the advanced -- Whirlpool's advanced dispenser prototype to look at. So they didn't have that knowledge. I believe that had they had that, there is one claim that would not have survived.

BY MR. MORICO:

Q. **If you can now turn back to Claim 20, which I believe you were about to talk about before I interrupted. Do you have an opinion as to whether Claim 20 is valid in view of the prior art?**

A. **Well, let's take a look. It is not, but I will explain why.**

Q. **Please do.**

A. **The first element says you have to have everything that 10 has. And we have already seen that it already has that.**

Now, it further requires that a mechanical drive mechanism be configured to move the water-dispensing assembly. That is what I call the nozzle, move it out. In terms of technology, there is nothing to that. That is obvious. If you are going to have a nozzle that moves, you have a choice, you can either have a person move it or you can put a spring in to move it or you can put a rack and pinion. Those are very primitive devices that were well-known way back beyond in the 1970s when I was working

with the appliance people. And it would have been obvious to put in a spring.

Q. **Is your opinion based purely on what information was out there, or is there any other information that you are basing your opinion on Claim 20 being invalid?**

A. **Well, there is other, and that is the Kim patent. If for whatever reason you wish to show a combination, and the way I was taught, you can -- a combination of two items can prove that a claim is obvious.**

And there is the Kim patent, which is precisely a prior art. And it is directed at an appliance and a discharge of water and all these other critical features.

So there is an inventor Kim, which is shown here.

Q. **Can you explain for us how Kim meets the elements of a mechanical drive mechanism, in your opinion?**

A. **If we can look at what Kim revealed.**

What Kim revealed is a -- is there a larger, by any chance -- there we go.

Very straightforward. The key elements is, water comes in here and is blocked over here. There is a button. There is a spring. You push the spring. Out comes the nozzle beyond the door. This, by the way, is the appliance face of the door here. You push the button, out comes the dispenser, the pop-out valve goes up, water

dispenses.

There is a mechanical drive mechanism that has been disclosed to the community before the filing, more than one year before the filing date. And the combination, if you feel you must -- the combination of Kim and the advanced -- the Whirlpool advanced dispenser prototype gives you all the elements that are required in Claim 23.

Therefore, since all of the elements are found in the prior art, therefore, that claim is invalid, in my opinion.

Q. **You said 23. Did you mean 20?**

A. **I meant 20. I am sorry. 20.**

Q. **So, again, I will ask you the same question, Dr. Karvelis. The Patent Office granted Claim 20 to LG. Right?**

A. **Correct.**

Q. **And yet you conclude that Claim 20 is invalid in view of the prior art, yet the Patent Office granted that claim. Can you explain how, in your opinion, that happened?**

A. **Well, it's very straightforward. The Patent Office, if you look at the records of what things they considered, what was provided to them by the inventor of record, of the '121, the inventor of the '121 never submitted Kim to the Patent Office. The Patent Office not only did not have Kim in front of them when they examined the patent, they also didn't have the Whirlpool advanced dispenser. So they had**

neither one of those. In my opinion, had they had those two, it would have been absolutely straightforward. In my opinion, they would have concluded that the prior art is already there, that it's not worthy of an invention.

Q. **Did you reach any conclusions as to the validity of asserted Claim 21 in this case?**

A. **Again, Claim 21 refers back to 20, but what -- and 20, of course, is the Whirlpool advanced dispenser prototype. But this says, "A mechanical drive mechanism including a spring."**

Well, we go back to Kim, if someone wishes to find art that's very peculiar to refrigerators and water dispensers in refrigerators, we go to Kim, and there we go. We see, there is a spring, there is a bunch of gears. And that is all that is necessary. All you have to do is find one element, and that is the spring. And that's all you need.

If you find that your cupholder in the car which you press in comes out, that mechanism has a spring. It does exactly the same thing as 21 is describing. In the '60s when we moved into our new house in Detroit, there was a breadboard. You push that breadboard in, out comes -- by spring force out comes a board. You chop the bread. When you are done, you push the board back in again. A CD tray is also another device.

All of these things were out there. I was taught known combinations put together to achieve expected results is obviousness.

So 21, in my opinion, is obvious.

Q. **Dr. Karvelis, let's turn to Claim 36. Do you have any opinions as to the validity of Claim 36 in view of the prior art?**

A. **This is the same type of technology. And in my opinion, 36 is also invalid in light of at least Kim and the Whirlpool advanced dispenser.**

Q. **Can you briefly describe or explain for us the basis for that opinion?**

A. **Well, the two things I mentioned, of course, is Kim, that publication that is prior art, and that advanced prototype dispenser, that that combination would have been obvious and that that combination renders that whole 36 obvious. But let's go through the elements because that's what we are supposed to do.**

"A dispenser for an appliance comprising a movable member. A water supply mechanism attached to the movable member."

We go back to the photograph. That is exactly what the Whirlpool advanced dispenser prototype does. So we can cross that off.

We now have another element, which is "A

mechanical drive mechanism configured to, upon activation of a user control, apply force other than supplied by a user to motivate movement of the movable member from a first position at which an outlet of the water supply mechanism is positioned behind a plane representing an outer surface of a door of an appliance to a second position at which the outlet of the water" -- that's what I call the nozzle -- "mechanism is positioned in front of the plane representing the outer surface of the door."

A lot of words.

Q. **Can you please briefly describe your understanding of what that means and how you believe that was met by the prior art?**

A. **Well, that means that you press a button and the mechanism pops out, the nozzle, or the water-dispensing element beyond, from a position inside to beyond the door. In front of the door is what the words say exactly. There it is. There is the advanced dispenser. There is Kim. And there is the actuation right there. There is that button that represents the button as being pushed in, the red, as going beyond the door.**

So in my opinion, it would have been obvious to combine this particular -- I am sorry, this element is present, and, therefore, by the combination of Kim with the Whirlpool advanced dispenser prototype. So therefore, we

have met all of the elements. Therefore, Claim 36, in my opinion, is invalid in light of at least those two references. I think it would have been obvious even without that third reference.

I believe if the U.S. Patent Office had that in front of them, they would have concluded the same thing.

MR. MORICO: Thank you very much, Dr. Karvelis.

I pass the witness, Your Honor.

THE COURT: Mr. Coyne, you may cross-examine.

CROSS-EXAMINATION

BY MR. COYNE:

Q. Good afternoon, Dr. Karvelis.

A. Good afternoon.

THE COURT: Did you have a book, Mr. Coyne?

MR. COYNE: Yes, we do.

BY MR. COYNE:

Q. Doctor, how many times have you testified as an expert witness in a patent case?

A. Maybe 20. I really haven't kept track. 20, 25, 30.

Q. And over 50 percent of your work is related to litigation. Correct?

A. It varies from month to month. But maybe that might be a guess, a reasonable guess at an average.

Q. Is it safe to say that you are a professional witness?

A. No. I am a professional engineer, and seven states

recognize that. ISME also recognizes that I am an expert engineer and a licensed professional engineer, and the university recognizes that.

Q. **One of your expertise as an engineer is in failure analysis. Correct?**

A. **Yes, sir.**

Q. **In fact, the company used to be called Exponent Failure Analysis Associates. Right?**

A. **Exponent was called that, correct.**

Q. **None of the cases in which you have testified have involved refrigerators, have they?**

A. **It depends. Again, if you call that waste-high refrigerator freezer a refrigerator, then yes.**

Q. **We are talking about in this case, let's focus on what we are doing here in this case, which is these household refrigerators, residential refrigerators. None of the cases you have testified about involved this type of residential refrigerator. Right?**

A. **Exactly.**

Q. **And Whirlpool is a major client of your company, isn't it?**

A. **I don't know who all -- what the ratios are. Whirlpool is probably a client.**

Q. **At least they are a client for this matter?**

A. **I would assume so.**

Q. **You have had publications. Correct?**

A. **I have a number of publications that are available to the public. I have a number of publications that are classified. And I have a number of publications, probably 12 feet of them, that are done in my 40 years of industrial research and development.**

Q. **How many of them are public?**

A. **Including editor, probably this much (indicating).**

Q. **How many publications is that, roughly?**

A. **Well, I am editor of *Manufacturing Technology Handbook.* Three years ago -- I am sorry, I am a contributor to the chapter "Mechanical Manufacturing", *Engineering Technology Handbook*. I am the editor of power transmission and gearing proceedings, which are about five inches thick that you can get. Also, I have a publication for the testing for the valves after Three Mile Island where we tested a million pounds of steam per hour, trying to figure out what happened at Three Mile Island, with Dave Raj. I have other publications. Would you like me to go through them all?**

Q. **I was looking for a number.**

A. **Seven, eight, nine, ten, that you can get in the public library.**

Q. **I am talking about how many published articles, papers, have you published in your career?**

A. **That you can get in the public library?**

Q. **That are not restricted in some way.**

A. **I think I said somewhere seven to ten.**

Q. **And none of those relate to residential refrigerators. Correct?**

A. **That's correct, not to refrigerators themselves. Some involve the technology but not to refrigerators.**

Q. **And you don't have any patents. Correct?**

A. **That's correct. The ones that I generated, the ideas I generated at Borg Warner were too sensitive from a technology viewpoint, so they were declared trade secrets. We did not want to share them with the rest of the world because our clutches were superior to anybody else's and we did not want to teach people how to make clutches.**

Q. **So you have never even applied for a patent. Right?**

A. **I have never been rejected for a patent, that's true.**

Q. **I am asking: You have never applied for one, either?**

A. **That's correct.**

Q. **Sir, you were sent about 21 three-ring binders by counsel for Whirlpool as a basis for the information you reviewed in this case, correct?**

A. **The first shipment was 19.**

Q. **Counsel selected those documents for you. Right?**

A. **Certainly.**

Q. **You did not conduct any independent investigation of**

the materials on which you were basing your opinion in this case, did you?

A. **Not in the sense that you mean. No, I did not go out and do something totally different. There was sufficient material in there to form an informed basis for an opinion. Yes, there was enough information there.**

Q. **That wasn't my question. My question was that's what you based your opinion on, not the other millions of pages of documents that the parties have exchanged in the case. Correct?**

A. **I presume that's true. I mean, if there are millions of pages, then there are millions of pages.**

THE COURT: Let me see counsel.

(The following took place at sidebar.)

THE COURT: I don't want the jury to believe there are millions of pages of documents related to this specific subject matter. It is an unfair question. And you need to say something. Okay?

MR. MORICO: Yes, Your Honor.

(End of sidebar conference.)

BY MR. COYNE:

Q. **Sir, you do not read or speak Korean. Correct?**

A. **Correct.**

Q. **You are not offering an opinion in this case with respect to infringement of the '121 patent. Is that**

correct?

A. **That's correct. I didn't have to. Anybody, even a layman looking at that refrigerator, could see that that nozzle did not extend beyond that door. You don't need an expert for that. And anything that is invalid, you can't infringe an invalid patent.**

So there is no need for me to do that.

Q. **So your opinion is based solely on invalidity?**

A. **No, that's not what I said. I said that even a layperson can see that the nozzle does not extend beyond the door and see that that critical element for all of the claimed patents is not there. What I reported on in my report that needed engineering analysis is the fact that Whirlpool was the first to invent and Whirlpool, in combination with Kim, renders all three of those either singly or together as invalid.**

Q. **Sir, could we bring up, Mr. Brooks, please, DX-392?**

A. **Do I have that here?**

Q. **I believe you do, Doctor. It should be tabbed with the exhibit number.**

A. **I will read the script.**

Q. **That is fine.**

Could we go down to page, I think it ends with 299.

Sir, did you review this document as part of the

documentation that you reviewed in forming your opinions?
A. This is the document produced. I haven't reviewed it. But I do bad on memory tests, so why don't you let me read it first, again, refresh my memory.
Q. Okay.
(Pause.)
A. Okay.
Q. You were in the courtroom this morning when Mr. Voglewede testified. Correct?
A. Yes, sir.
Q. And you heard the examination that Mr. Sharma did of him asking about the 1997 work. Correct?
A. Yes, sir, I heard him say that he was not present in that group that reported this.
Q. And you saw the document that Mr. Sharma showed at that time as well. Correct?
A. I saw all the documents that Mr. Sharma showed.
Q. And that the complete dispenser redesign was proposed in 1997 but was delayed due to the added complexity and risk of the project. Correct?
A. I saw the words on that document, sure. The words say what they mean.
Q. And then, have you found in your review of Whirlpool's documents any documentation between 1997 and 2001 with respect to a retractable tray or a retractable spigot

invention?

A. **I don't recall. All I do recall, though, is that the conception date in all of the documents is consistent, that the advanced prototype dispenser, that all of those features, the movable nozzle beyond the door, plus a movable support, that that and other combinations is consistent with all the other documents in Mr. Voglewede's testimony.**

Q. **Can you please bring up, Mr. Brooks, PDX-117? Can we have the first entry, please?**

Sir, this rotating dispenser project was delayed due to complexity, correct? Whirlpool abandoned that project?

A. **Well, wait a minute. Rotating dispenser project, I don't see any documentation that talks about a rotating dispenser project.**

I don't know any details about it. To label it as a project, you know, as if it really were a reality of a refrigerator, we don't know if the nozzle rotated inside the refrigerator. We don't know anything about it. We have five words in a document that we have no support for.

It may be. But I certainly can't buy that, because I have no evidence.

Q. **Can you buy that they were at least working on a rotating dispenser in 1997?**

A. **Where, in what?**

Q. **In Whirlpool.**

A. **Oh, no. That's not what I meant. I don't know whether it was within some other device that was being contemplated as a research project. I don't know if it was an enclosed beverage-dispensing device that you wanted to rotate to give different drinks. I have no idea. None of us really do. It's not a project. It doesn't rate a mark on a timeline, a rating as a project. It simply doesn't.**

Q. **Sir, I am not making the criteria for putting it on this timeline that it is a, quote, project. The document we just looked at showed that Whirlpool was doing work on a rotating dispenser in 1997. Correct?**

A. **I don't think that is enough words to say they were doing work. What we can say is in 1997 somebody put in a document words that talked about a rotating dispenser. We don't know anything about where it goes, how it acts, in what way t goes.**

Q. **Let's go back to 392 then, please, Mr. Brooks, the portion that we were looking at.**

Let's just call it supporting research, then. Is that fair enough?

A. **Well, for that paragraph, correct, you are absolutely right. That paragraph that you have in yellow, that is a bullet point different from the bullet point that is a complete dispenser redesign.**

MR. MORICO: Your Honor, I would like to object to this whole line of questioning. We never relied on a 1997 date. We are relying on a 2001 date. I have endured Mr. Sharma and Mr. Coyne talking about what happened in '97 and '99, when we are not relying on that at all.

THE COURT: Sustained.

BY MR. COYNE:

Q. **Let's go, then, to March 21, 2001, sir.**

You have heard Mr. Voglewede's testimony. And you reviewed the invention disclosure documents. Correct?

A. **Yes, I was here when he testified.**

Q. **And that did not include a mechanical drive. Correct?**

A. **Which date?**

Q. **The March 21, 2001, invention documents, whatever documentation Mr. Voglewede had identified today of what he had with respect to a retractable tray and a retractable dispenser, did not include a mechanical drive on the retractable dispenser. Correct?**

A. **If you are referring to the disclosure document, I don't believe it was in there. But it's trivial. You only have a couple things that you can use, a spring, you know, obvious, simple, little enhancements on an idea are not worthy of that kind of a declaration, in my opinion, based on my work on corporate research disclosure forms that I have worked on. It doesn't warrant it. I see nothing**

unusual about that.

Q. **Let's go to the Kim patent that you referred to in your testimony. I think you had it as Karvelis 24. Can you bring that up, please?**

Sir, let's go through how this works exactly. Can you bring up Claim 36 and split-screen it so we can see both of them together?

I would like to focus your attention on the mechanical drive mechanism portion. Do you see that on the right-hand side of the screen, Claim 36?

A. **Correct.**

Q. **What it requires is that the user applies a -- that "the mechanical drive mechanism is configured upon activation of a user control to apply a force other than supplied by the user to motivate movement."**

Do you see that language?

A. **Correct.**

Q. **And the way -- what is shown on the left, in Karvelis 24, the Korean patent application from May 30, 1996, the way that works is the user presses the button, which is located in this region. Correct?**

A. **It's the non-colored region, where the red arrow points to. That is the white region, correct.**

Q. **So the user presses that button and that forces a rod into the unit against the force of this spring. In other**

words, this spring is being loaded or stretched, as you push that button in. Correct?

A. **As you displace that button, yes, sir, yes, that linkage causes that spring to extend.**

Q. **And as you displace that button, you also move this rod 56 against the gearing here 57 and that rotates this gearing to force this part 58 -- I am sorry, gearing 58, this part 52 out, so it extends the nozzle. Correct?**

A. **Correct. The rack and gear going through the three-pair gearing and going back through another rack causes that nozzle to go upwards, of course.**

Q. **And the force that is moving this nozzle outward is the force supplied by the finger of the user pressing against this button. Correct?**

A. **Well, not really. There is a combination of gearing. So it's a multiplication. It's not the same force. Absolutely not.**

Q. **But the force supplied by the user is moving this nozzle outward. Correct?**

A. **No, it's multiplied by the gearing ratio.**

Q. **And in addition to that force that is required to move the nozzle out, the user must also press against the spring 61. Correct?**

A. **There is a compression spring, and I think that's called 60. Can you read that better than I can? On the**

lower left? I think that's 60.

Q. **Then there is a spring 61 that as you press the button, which is providing the force to move the nozzle out, you are also pressing against the spring, which is increasing the force you have to apply to move the nozzle. Correct?**

A. **Well, the spring's reacting to whatever displacement you impose on them. You either do it in terms of spring displacement or force. They are all related to the spring concept.**

Q. **So whatever force there is that is required in this linkage to move the nozzle out, the user has to apply more, not less, force, in order to overcome the spring in addition to the force required to move the nozzle. Correct?**

A. **In that particular manifestation, I would have to do an analysis, to do a full analysis, which requires sitting down and going through it.**

What is shown here is the assemblage of racks and pinions and structures that illustrates that at the time of 1999, the technology, using springs and mechanisms to cause a door to go forward is straightforward. Whether you switch a couple of springs into another location is irrelevant.

Q. **Sir, my question is much more specific. It's whether or not this particular limitation of this particular claim**

is being met. So let me try it another way.

We have got this linkage, going from the button through this bar to the rack and pinion. And all the way, pushing this out and pulling this bellows out. Let's say I disconnect the spring, hypothetically. I am going to unhook the spring, so the spring is no longer pushing against the force required to push the button in. I am going to have a certain amount of force that is required to press the button and actuate this gearing to push the spout out. Correct?

A. **You can't tell from looking at that exactly because you don't know how the force balance is set up. You don't know if 60 -- if 61 is already preloaded. You don't know what the gear -- if there is gear damping in there. You don't know what the bellow stiffnesses are in there. It's not relevant.**

All you need to know is that the spring and spring mechanism, primitive spring and rack and pinion mechanisms, exactly like the one shown, this shows a rack and pinion precisely the same as the '121 patent figure shows. Exactly the same thing.

Q. **Sir, would you please stay with me? I am asking you something different. I am saying whatever the other apparatus is, whatever the force of the bellows, whatever the mechanical leverage from the rack and pinion, I am going to require a certain force. And I am not asking you to**

quantify it. I am simply saying whatever it ends up being, if I disconnect the spring, I am going to require a certain amount of force, call it X, to actuate, to move this mechanism, to make this lever go in, to move these gears, to push this out, to tug on the bellows, whatever that force is. Let's call it X. Is that fair enough?

A. Yeah. You are going to have X if you have a spring. You are going to have Y if you don't have a spring. You always have X. You have unknown forces in a system until you know it.

Q. Sure. My question to you, sir, is that this spring is then adding additional force that must be overcome in order to move, to motivate the dispenser, mechanical drive, correct? When I reconnect that spring and now press the button, I have to put more force, not the same force. Right?

A. Which spring are you disconnecting?

Q. This spring right here, sir, 61.

A. It could very well be that there are situations where that might be true, sure. And those situations where that wouldn't be true.

Q. Sir, I am trying to limit the question very specifically to only one factor. I disconnect this spring 61. Okay? Are you following me?

A. Yes. But you can't do that. You cannot simply talk

about that spring as if -- not about forces, transmitted through a system, until you have an understanding of what other virtual springs are acting in there.

So the answer to any question is always going to be, it may be so.

Q. Sir, the spring is actually making it harder to push the button. Correct?

A. Depending on how it's set up in a particular embodiment. It could be yes and it could be no.

Q. This embodiment.

A. We don't know and we don't have enough information to know exactly what is going on there to do a force balance.

Q. In any event, the spring is actually -- if I press the button, I am pressing against the spring, I am loading the spring when I press the button. Correct?

A. You are loading against the effective compliance of the whole complete system.

Q. And in the refrigerator that we had here the other day, you saw the other model when Dr. Bessler testified. Correct?

A. Correct.

Q. And in that model, when I pressed the button, the spring is unloaded as the device extends beyond the plane. Correct?

A. This spring is storing energy, the torsional spring is

storing energy put in its place by a previous user.

Q. **When I press the button on this device, I am pressing against the spring, and when I press the button on the refrigerator that LG is accusing of infringement, I release the force on the spring. Correct?**

A. **Well, in this particular embodiment. But it's absolutely trivial to turn the springs around and get exactly the same behavior. Again, it's a cupholder in a car. The science behind a cupholder in a car, it only has two parts. It only has two moving parts at all.**

To a person of ordinary skill in the art, as far back as the '50s, this would be trivial, something they would do in seconds, to convert that into one where you press the button. You may want to have one where you press the button like this or you want to convert it to one where you have a catch and a spring.

Q. **I will take you up on an example, because Mr. Partridge said something about that during opening.**

So in your view, a spring-mounted cupholder instead of a manual cupholder would be obvious. Right?

A. **I didn't say that. I said that the technology to apply the well-known cupholder, operating a cupholder every day and you are going to try to solve a problem, because a customer wants to have a mobile, automatically operated nozzle, you have around you every day examples of technology**

that you can apply to solve that problem. That's ordinary solutions, every day, ordinary, visible solutions to the similar problem in other technologies is certainly a valid way. And it would have been obvious to a person of ordinary skill in the art faced with the trivial problem, how do I make it move out towards the spring and catch.

Q. So a cupholder would be another example of something where you would say as of 2001 it would have been so obvious to spring load these devices that it wouldn't be patentable. Right?

A. No, no, no. I am not saying there was never a patent on a cupholder. I am not saying that. I am not talking about a cupholder. I am saying, once the cupholder in a car is out, and it's hard for anybody not to see a cupholder, not to use a cupholder in a car. And you are working on a problem of -- on moving a spigot out, to press a finger, why wouldn't you think of a cupholder?

MR. COYNE: I am showing counsel a document that I would like to use with the witness. Unfortunately, I only have one copy. I would like to use the Elmo with it. I will show it to the witness as well.

May I approach the witness, Your Honor?

THE COURT: Yes.

BY MR. COYNE:

Q. Dr. Karvelis, I am handing you a copy of a U.S.

patent. You have not seen that document before?
A. I am sorry. Have I what?
Q. Have you seen that document before?
A. No, I haven't.
Q. That is a patent that was issued in 2006. Correct?
A. If you will give me a second, sir. You have given me a document. Would you mind if I look through it for a minute?
Q. Please.
(Pause.)
A. Okay. So this is a very special kind of a cupholder. This isn't just any old kind of cupholder. This is a cupholder that has a lot of features to it. It has a --
THE COURT: Doctor, let him ask you a question.
THE WITNESS: I am sorry.
THE COURT: That's all right.
BY MR. COYNE:
Q. The question, sir, is that patent issued in 2006. Correct?
A. March 30, 2006.
Q. And it was filed after 2001, at the point when you feel the springs would have been an obvious addition. Correct?
A. No, no, no. That it is not what I am saying. The cupholder in my car has been around since 2000. My car is a

2000. The car I had before that was a 1995. That had a cupholder. The car before that was a 1992. They all had cupholders.

This, sir, what you have shown me, is a patent for a lot more than just a simple cupholder. This has a lot of self-adjusting features to adjust to a cup. So this is not a simple cupholder. It is a complicated cupholder.

THE COURT: On that note, we are going to let the jury take its afternoon break. And I would like to speak with counsel.

(Jury leaves courtroom at 3:10 p.m.)

THE COURT: You may take your seats or leave the courtroom, whichever you choose.

First off, this is a document this gentleman has never seen before. It's drawn no objection. I guess there is a strategic or tactical reason why.

Doctor, you may take a break if you like.

THE WITNESS: Thank you, sir.

THE COURT: I, as is always the case with me in jury trials, worry about them getting confused. I have a concern in this regard, with regard to this line of cross-examination, with respect to the use of this particular document and the analogy I think you are trying to draw or the point you are trying to make, that, seemingly, after the invention of cupholders, yet in 2006,

the PTO still issued a patent on a cupholder. Is that your point?

MR. COYNE: No, Your Honor, they issued a patent on a spring-loaded cupholder.

THE COURT: Spring-loaded cupholder, fine.

MR. MORICO: Your Honor, I agree, it's objectionable. But, quite frankly, I thought the witness was handling the questions quite well.

THE COURT: Well, counsel -- okay. Here is where the twain meets between judges and lawyers, as between judges on the one hand and lawyers on the other.

I have a job to manage this proceeding in a time-efficient way. I don't have time, nor does this jury have time, to waste on this kind of testimony. And I don't know how much more of this you have, Mr. Coyne. Can you give me some idea? Because it seems to me that the two of you and the witness are having a difficult time connecting on the points you are trying to make.

MR. COYNE: Yes, Your Honor.

THE COURT: How much time do you plan --

MR. COYNE: I have one or two more questions on this particular document, and then I have one or two questions on his compensation. And that's all I have for this witness.

THE COURT: Let's try to move that along.

Let's both sides keep in mind that you are both on a clock. And I am going to enforce the time constraints that I have imposed heretofore. They will be enforced rigorously.

Let's take a break.

(Recess taken.)

BY MR. COYNE:

Q. **Doctor, how much are you being paid for your work on this case?**

A. **I am on salary, but my hours are charged at the rate of $390 per hour. I am a professional.**

Q. **How much has the company been paid for your work on this matter since the very beginning of it?**

A. **I have never seen any of the bills.**

Q. **How much time have you put in?**

A. **A lot.**

Q. **Can you give me an estimate of how much "a lot" is?**

A. **Easy over a hundred hours. I am going to guess maybe 110. You are asking me to guess.**

MR. COYNE: Thank you, sir. No further questions, Your Honor.

THE COURT: Thank you. Mr. Morico, redirect?

MR. MORICO: Thank you, Your Honor. I just have one or two questions.

REDIRECT EXAMINATION

BY MR. MORICO:

Q. **Mr. Roberts, can you pull up the figure from the Kim reference, please?**

Dr. Karvelis, during Mr. Coyne's examination he had asked you about how the various springs and rack and pinions operate.

I believe you testified that the multiple pinion mechanism with the rack causes less force to be required to move the water spout than that supplied by the user.

Can you please explain that to us?

A. **Well, you have a gear ratio. I don't have the details of the exact ratios here. But I am looking and seeing that you are not multiplying, you are changing the speed. So you have different ratios. You have a gear ratio. If you have the motor running at one end and you select your gear ratios to get the -- the horsepower is always the same, but you get different speeds. You can either get torque or speed. It looks like that one may have been for speed. Although I haven't analyzed it.**

Q. **Is the force being applied to the water spout something other than that supplied by the user?**

A. **Yes.**

MR. MORICO: Thank you very much. I am done, Your Honor.

THE COURT: Doctor, thank you very much.

(Witness excused.)

THE COURT: Mr. Cottrell?

MR. COTTRELL: Thank you, Your Honor. Whirlpool calls as its next witness Mr. Gary Langbo.

... Gary T. Langbo, having been duly sworn as a witness, was examined and testified as follows ...

DIRECT EXAMINATION

MR. COTTRELL: Good afternoon, ladies and gentlemen. Whirlpool's next witness is Mr. Gary Langbo. He is a senior executive in marketing for refrigerators for Whirlpool. He is going to primarily discuss marketing and the importance of the in-door-ice innovation, Whirlpool's in-door-ice innovation. And he is going to talk a little bit about those dispenser features of which we have been hearing.

DIRECT EXAMINATION

BY MR. COTTRELL:

Q. **Good afternoon, Mr. Langbo.**

A. **Good afternoon.**

Q. **Tell us a little bit about yourself. Do you need some water?**

A. **I do.**

MR. COTTRELL: May I approach, Your Honor?

THE COURT: Yes.

BY MR. COTTRELL:

Q. **Mr. Langbo, just tell us a little bit about yourself.**

A. **Again, my name is Gary Langbo. I am the trade marketing director for our refrigeration business in the United States.**

I have been at Whirlpool for almost 15 years. I am married. My wife and I have four children, and we live in Stevensville, Michigan, which is a small community adjacent to Benton Harbor, Michigan, where Whirlpool Corporation is world headquartered.

Q. **After high school, briefly, tell us about your education.**

A. **I went to Albion College in Albion, Michigan; received a Bachelor of Arts in economics and management. From Albion, I went on to law school at DePaul University in Chicago. While there, also obtained a Master's in business administration, an M.B.A., in international business from DePaul, concurrently. And graduated with both of those in 1992.**

Actually was smart enough at the time to take the Illinois bar and passed the bar, but have not practiced law since then.

Q. **So you are not a practicing lawyer?**

A. **I am not a practicing lawyer, no.**

Q. **And let's talk a little bit about your work background. Prior to joining Whirlpool, what did you do?**

A. **Immediately after law school I went into sales and account management for a company of Dun & Bradstreet, small subsidiary of Dun & Bradstreet in Chicago called Nielsen Clearinghouse, again, sales and account management for coupon clearing services.**

Q. **And let's start with what you are doing now at Whirlpool. What is your job, what are your responsibilities?**

A. **Day-to-day, responsible for delivering our almost $3 billion refrigeration business in the United States. And I have been in the director role since April of this year.**

Q. **What did you do right before that, Mr. Langbo?**

A. **Previous to that I was general manager of merchandising, which is very similar to trade marketing at Whirlpool, from November through April. So November of '08 through April of 2009. And previous to that I was category marketing director for our refrigeration business across platforms and all of our brands in the United States, again, for refrigeration, for about a year and a half.**

Q. **And during those prior jobs you had with Whirlpool, did you work with the trade partners of Whirlpool?**

A. **Yes, I did. In many cases, closer with some than others, but yes, I have had a lot of interaction with our trade customers.**

Q. **Sears?**

A. **Sears being one of them, yes.**

Q. **So given this work history, you are familiar with the products that Whirlpool puts out in the refrigeration area?**

A. **Yes, I am.**

Q. **And you are familiar with the features on those products?**

A. **I am familiar with the features. Probably not as well as I should be. But I am familiar with them as we go to market, yes.**

Q. **Let's talk just briefly, Mr. Langbo, about the importance of innovation at Whirlpool. Can you tell us about that?**

A. **It's extremely important. Innovation is one of the key tenets of our strategy. Not only innovation, but innovation that is on point, that consumers find relevant, that our trade customers find relevant and easy to sell, and more importantly, for me as a marketing guy, innovation that fits our brands appropriately and furthers the positions of those brands in the market.**

Q. **At Whirlpool, is innovation driven by consumer demand, what the customer wants?**

A. **Absolutely. Innovation for us just implies it is consumer-focused innovation at Whirlpool. That is what we mean when we say "innovation."**

Q. **Mr. Langbo, I would like to ask you a few questions**

about one of Whirlpool's innovations, one we have been talking about this week, the in-door-ice, or the IDI. Are you familiar with that feature?

A. I am familiar with in-door-ice, yes.

Q. And from your view, what are the benefits in marketing with trade partners, what are some of the benefits to either trade partners or the ultimate customers of that feature?

A. Well, the big benefits of in-door-ice is essentially, which we launched back in 2000, it's moving ice storage from the inside of the freezer, which is essentially at eye level for consumers, to in the door. A couple benefits of that. More accessible and easier-to-use space in the freezer compartment for the consumer. And the second benefit is easier access to more bulk dispensing of ice.

So the in-door-ice feature on our products, the consumers have the ability to pull that bin off and use bulk quantities of ice, and it's a lot easier than the previous non-in-door-ice versions.

Q. I think you mentioned when IDI, or in-door-ice, was launched. When was that, again?

A. It was launched in the year 2000.

Q. How do you remember that?

A. I remember it because I left Whirlpool for a year, in the year 2000. Went to Dell Computer in Texas. And I remember the trade show in Dallas, Texas, was my last week

with Whirlpool. I did obviously rejoin a year later. But I remember that trade show. In-door-ice, my recollection, was the hit of the show. It was a big innovation that Whirlpool had launched.

Q. **And you were at that trade show personally?**

A. **I was.**

Q. **Whirlpool puts out different product lines from time to time. And before it does, are there preparations or marketing information prepared?**

A. **Yes. It's prior to putting out a new model line, for example, or a new innovation in a specific model, there would generally be some fairly rigorous launch work done around what's the total plan for bringing this product or line or brand to market.**

Q. **And before IDI was launched in 2000, what was sort of the buzz at Whirlpool about it?**

A. **Again, I was in cooking at the time in 1999, up through that trade show in early 2000. But I recall in-door-ice as being a -- at the trade show there, it was one of the biggest innovations we have brought in refrigeration, my recollection, since the launch of the external ice and water through the door.**

Q. **Could you pull up DX-306, please?**

Mr. Langbo, if you could turn to your binder, there is only two, I am sure the jury will be glad, there is

only two exhibits and a couple of slides, so it should be the first exhibit. Do you see that?

A. **I do.**

Q. **Have you seen this document before?**

A. **Yes, I have.**

Q. **It's a Whirlpool document?**

A. **Yes, it is.**

Q. **You didn't write this document, though, did you?**

A. **I did not.**

Q. **I just want to ask you a few questions. If we could turn to pages ending 2254. At the top, Mr. Langbo, it says, "National consumer advertising required to support No. 1 refrigerator feature introduction ever."**

Is that consistent with what you recall, sort of what the buzz was at Whirlpool?

A. **Yes. It was in-door-ice was a major innovation at Whirlpool in this time frame.**

Q. **Let's talk a little bit about pricing for refrigerators. You know a little bit about that?**

A. **I do.**

Q. **And talk to us generally about how Whirlpool decides how to price your refrigerator?**

A. **I will start with there is four key platforms. I will try to keep it brief.**

Our two-door business, which would be top-mounts

and bottom-mounts, which range in price, top-mounts, the retailer obviously sets the price alone, but it ranges in price from, let's say, $299 all the way through $1,500 for a top-mount. Bottom-mount is from $800 to plus $2,000. Side-by-sides, which is where we launched initially the in-door-ice, really anywhere from $599 or $699, all the way up to $2,500 or more, depending on the brand and feature set.

Then we have a French-door platform, both dispensing and non-dispensing, which range in price from $999 to post $3,000 and higher. And then a built-in, which is more permanent and more hidden and concealed. You tend to see built-in refrigerators in higher-end homes, designer kitchens and that sort of thing. Those can run up to well above $10,000 for a built-in refrigerator.

Q. Is it fair to say that different niches on a refrigerator dictate the price?

A. Absolutely. You tend to -- you know, when I merchandise product lines within a brand, say, for example, within side-by-side refrigerators, we tend to merchandise, as you go up, you add features to get consumers and trade to sell a higher mix of product.

Q. Mr. Barnes, could we go to the next page?

Mr. Langbo, we are going to the next page ending in 2255. You see pricing, Mr. Langbo?

A. **Yes, I do.**

Q. **Can you tell us what that means to you in terms of the in-door-ice feature and the effect of the pricing of the refrigerator?**

A. **Sure. You know, at the time of this document, that I assume to be created prior to launch, obviously, the [redacted] MAP move, as you can see below, a [redacted] of that. So MAP would be those steps that I was just referring to. MAP being minimum advertised price, but you could well equate it relatively fairly to marketplace pricing.**

[redacted] in this case, a [redacted] value on in-door-ice. What is unique about this document, and I hope I am not overstepping the question, but it's [redacted] for these three things. I can tell you today in the marketplace, it's the -- the up charge or the step-up feature value of in-door-ice in the market is [redacted] Depending on the platform, it could be more.

Q. **These new advanced features, like the in-door-ice, it is not only a benefit to the consumer, but, frankly, it allows Whirlpool to make a certain profit?**

A. **That would be the expectation, yes.**

Q. **If I could go to, Mr. Barnes, page 2263. Mr. Langbo, 2263, a little further along in the document.**

A. **Okay.**

Q. **And let's talk about the paragraph beginning**

"Marketing emphasis." A little earlier you talked about, in marketing, the key features of in-door-ice.

Is this consistent with those features?

A. I think all four of these are very consistent with the features that we were thinking back before launch and, frankly, the same features that I talk about with trade customers and with consumers today as it relates to the value of in-door-ice, yes.

Q. And in your experience at Whirlpool, has in-door-ice since 2000 been the success that everybody thought it would be?

A. I think it has since launch exceeded our expectations.

Q. And let's talk about, you mentioned the trade show in Dallas in the year 2000. So we won't go back over that. Let's talk about which brands that Whirlpool puts out in refrigerators that contain the in-door-ice system.

A. Today?

Q. Today.

A. Today we have in-door-ice across a number of platforms that I mentioned earlier. So side-by-side refrigerators, we now have in-door-ice in our French-door bottom-mount platform, as well as in the built-ins. And it today would be present in our Whirlpool brand, our Kitchen Aid brand, our Maytag brand, as well as some -- sorry, Jenn-Air brand. Forgot Jenn-Air. Then as well under some product that we

manufacture for Kenmore, for Sears Corporation, under the Kenmore label.

Q. **Does Whirlpool continue to put this feature in new brands or new platforms?**

A. **Absolutely. It's a critical feature. Put it in because we know consumers -- importantly, most importantly, because consumers value it. And secondly, because in many instances, our trade expects and demands it.**

Q. **And earlier, you mentioned what sort of the price that can be equated to the in-door-ice, when it was first launched. We saw that document. What is it today? What does in-door-ice add to the value of the price of a refrigerator?**

A. **Again, depending on the platform, but it's [redacted] I think in one platform, even [redacted] for in-door-ice. There is obviously other features associated with it. But in-door-ice is by far the No. 1 feature as we step up the line within side-by-sides, for example, and French-door.**

Q. **Let me ask you a few questions about, you mentioned the trade partners of Whirlpool. Can you just name a few?**

A. **Sure. Sears, many valued trade customers for Whirlpool. Sears is very large. Home Depot is a key trade partner. Lowe's is a critical trade partner. All trade partners are critical. Lowe's is a big trade partner. H.H. Greg and many other regional, as well as, for example**

builder customers. Direct builders, big home builders who, say, build 20,000 homes a year, like Centex is a direct customer of Whirlpool as well.

Q. **Can you give us some examples of your involvement in trade partners and the IDI feature?**

A. **Very few meetings that I have with trade customers that in-door-ice does not come up. But one that stands out that I think is an interesting, I think, example of the importance the trade puts on in-door-ice is the discussion,**

[redacted]

Q. **Home Depot's request that you put in-door-ice into their model, has that helped Whirlpool keep the Home Depot business?**

A. **It has helped us retain that floor spot and our business at the Home Depot. They find it to be a critical**

feature on the floors, sales associates and their merchandising team in Atlanta.

Q. **So it was a good decision on your part to change your mind?**

A. **It was a good decision.**

Q. **Let me talk about Sears just briefly.**

The refrigerators that Whirlpool sells to Sears, do some of them contain in-door-ice?

A. **Yes.**

Q. **Has that been successful with Sears?**

A. **I think it's been very successful. Sears has a very, very strong selling organization in their stores, heavily commissioned. And I think those sales associates probably better than most, with some exceptions of regional smaller players who rely on selling mix to make money, Sears has probably the No. 1 sales force, in terms of selling meaningful consumer-relevant features in the market.**

Q. **Mr. Langbo, does LG also sell refrigerators to Sears?**

A. **I believe they do.**

Q. **Do you know if those refrigerators have the in-door-ice feature we have been discussing?**

A. **My understanding is they do.**

Q. **Mr. Langbo, let me ask you a few questions, let's switch from in-door-ice to what we have been talking about, these dispenser features.**

I know you weren't in the courtroom, but we have been talking about the various dispenser features on a refrigerator.

Are you familiar with Project Niagara that was at Whirlpool?

A. **Yes, I am.**

Q. **Can you just tell us briefly what you recall about that?**

A. **Sure. Niagara was -- we also call it a couple of other names, advanced dispensing, not very technical, and fast-fill. It was a combination of many features that in total provided a number of benefits, again, innovation to our consumers, meaningful consumer-relevant innovation with a number of features.**

Q. **When was Niagara launched, to the best of your recollection?**

A. **To the best of my recollection, 2005.**

Q. **If we could put up, Mr. Barnes, Langbo 2, the slide, please.**

Mr. Langbo, just a few questions about this. What does that appear to be to you on the left?

A. **That appears to be an early, a very early, or first edition of our Niagara or advanced dispensing fast-fill unit.**

Q. **And the unit has different features. Correct?**

A. **It does.**

Q. **And can you just go through them quickly on the right there?**

A. **Sure, I can. Fast-fill is -- six features we are talking about on this page. Fast-fill, which essentially was two times the flow, two times the fill. And why is that important to consumers? If you have ever stood at a refrigerator and tried to fill a gallon worth of water, you have got to have a strong hand and a lot of patience.**

Q. **Mr. Langbo, let me stop you there and ask you one question about the fast-fill. Is that feature still important to Whirlpool in its refrigerators?**

A. **Critical, yes, it's a big deal.**

Q. **It's a big deal to not only your trade partners but to customers?**

A. **Both, yes.**

Q. **I am sorry. Continue down the list.**

A. **To the cavity size, you can't really see it from any of these three sources I have, but it provides both a wider and a taller and a deeper cavity. I know at least taller and deeper. It shouldn't say wider. I am not absolutely sure of that.**

That is important for consumers as well, to get bigger objects in, to fill with water. Measured fill is a -- I think we underestimated when we first came up with

this. But measured fill has the ability for a consumer to set ounces, liters or cups of a predetermined amount, just push it and have it dispense, as opposed to having it sit and hold the cup or pot or coffee pot in.

The movable spigot, you can see that represented by No. 4 there on the screen, where it rotates out to provide easier access for filling odd-shaped items.

Q. Mr. Langbo, let me stop you there and ask you just a couple questions about spigots.

There are a couple of different kinds that Whirlpool puts out. Is that correct?

A. That is my understanding, yes.

Q. And we have talked about, I think, spring and manual. Are they familiar to you?

A. I am familiar with those two, the terminology there.

Q. Has Whirlpool, to the best of your knowledge, continuously put out manual spigots since Niagara was introduced?

A. Correct. To my knowledge, the manual spigot, we launched first with manual spigot and we today continue to have models out there with the manual spigot.

Q. So a customer, for example, could purchase either a Whirlpool product with a manual or with a spring feature?

A. That's my understanding. Yes, when we market this feature today and this fast-fill technology in the advanced

dispenser, the movable spigot is not something I spend a tremendous amount of time talking to our trade about.

Q. While we are on spigots, then, we will finish the list. Is Whirlpool considering perhaps discontinuing some of the spigots?

A. Again, we did launch a version of this advanced dispenser in our French-door platform in the middle of 2009. And it was -- obviously the reason for doing that, we get some leverage off of using technology in this type of dispenser from one platform to another.

And those had the spigot, movable spigot. In the product we are launching in two months, in the Kitchen Aid brand, it will not have a movable spigot. It is fixed.

Q. Just complete the last two items.

A. No. 5, slide-out tray, it is interesting, I think. Subsequent to launching this not a lot of people know the tray slides out. The point of the sliding tray is to accommodate items that otherwise maintain fit on it. So you can pull the tray out and put a coffee pot on it, for example.

Lastly, nightlight, consumers tend to really value and -- find value in the nightlight feature.

Q. Now, sir, obviously, some features, in your view, in your dealings with customers or trade partners, some features are more important than others. Is that correct?

A. **Definitely.**

Q. **From this list you have a view of perhaps what's more important in your experience. And if we could go to the next slide, please.**

A. **I think we had it in order before. The fast-fill, since the launch of this product, these have been the key drivers in order of what consumers and trade are telling us are of the most relative value to them.**

Q. **Let me ask you, finally, a few questions.**

Mr. Langbo, the arrows on this demonstrative sort of match up with your experience and what you believe is important and less so.

A. **Correct. The top being -- fast-fill being of more value and more relevance to the consumer, for example, than the nightlight or the slide-out tray with movable spigot.**

Q. **Let's go on to one last few questions, sir. Let's pull up, if we could, DX-700.**

Mr. Langbo, have you seen this document before?

A. **Yes, I have.**

Q. **And from time to time, does Whirlpool create documents or have created for them documents about new projects, new features, new platforms?**

A. **Absolutely.**

Q. **And you didn't create this document, did you?**

A. **I did not create this document.**

Q. **Do you know who created this document?**
A. **Because I have seen this document before, if we flip to any of the subsequent pages, it labels the Boston Consulting Group, who is a consulting firm that we use fairly regularly for research and consulting work.**
Q. **And, Mr. Barnes, if we could go to page ending 5144, please? If we could highlight at the top where it says "in-door-ice," at the top of the left column, right there. Thank you.**

Mr. Langbo, what does this chart, in your view, represent?
A. **As I read this chart, it represents relative value versus cost in the consumers' eyes for these features that you see listed here.**
Q. **And in-door-ice is at the top?**
A. **Correct.**
Q. **And if we could go down a little further to fill speed. If we could highlight that.**

Is that fast-fill?
A. **Yes, it is. I would assume so. Fill speed, yes.**
Q. **If we could go a little further down to the slide-out tray and the rotating faucet and highlight both those, please.**

They are a little further down on the list. Is that correct?

A. **That's correct.**

Q. **And the relative importance of these features on this chart, does that match up with your understanding in the market?**

A. **Yeah. I think, with the exception of the "in-door-ice" at the top, as we related back to the fast-fill or the advanced dispenser, I am pretty sure those are in similar order, close to the way I valued them on the chart previously that we looked at.**

I think it also underscores the relative importance across platforms, and this is in particular embodiments, underscores the importance of in-door-ice in total and the relevance consumers put on it.

Q. **So it's fair to say this chart matches up with the slide we just reviewed on your view of the relative importance of these features?**

A. **I believe it does, yes.**

Q. **Finally, there is a quote on the right-hand side, beginning with "my sense." If we could highlight that. "My sense is that the response to measured fill, slide-out, and rotating faucet is not overwhelmingly great -- I'm not hearing consumers coming in and asking for it on our floor."**

Is that consistent with your experience recently in the market?

A. **Yes. I think the one exception to that, I am not sure**

which trade customer's comment, I think the measured fill may have more relevance than this quote is giving I felt. Sliding tray and move-out faucet I agree.

MR. COTTRELL: Thank you. No further questions.

THE COURT: Mr. Sharma, are you going to cross-examine?

MR. SHARMA: Yes, Your Honor. I have some cross binders as well.

CROSS-EXAMINATION

BY MR. SHARMA:

Q. **Good afternoon, Mr. Langbo.**

A. **Good afternoon.**

Q. **We have never met. My name is Anand Sharma. Nice to meet you.**

A. **Nice to meet you.**

Q. **Mr. Cottrell was talking to you about some slides that you had created about features for Whirlpool's dispensers. I think there was a listing of features and arrows up and arrows down. Do you recall that?**

A. **I do.**

Q. **I would like to shift from slides that you created and actually talk about some Whirlpool documents. So I have gotten in the binder in front of you some documents. I would like you to turn, if you will, to tab 3.**

If we could bring PTX-617 up, please, Mr.

Brooks.

Mr. Langbo, I believe you indicated that Niagara is Whirlpool's internal name for the advanced dispenser project. Is that right?

A. **Yes.**

Q. **I would like to take you to a particular page in this document. I am going to refer to it by the last three numbers at the bottom, 487.**

Mr. Brooks, if you could go there as well.

I would like to point your attention to the second-to-last bullet point, because I think you were indicating that there were many features that are involved with this dispenser. And you listed some on a slide. Would you agree with me that the four main features for Niagara are the extendable water arm, the slide-out tray, fast-fill, and measured fill?

A. **I think those are four of the -- ask your question again. I am sorry.**

Q. **When Whirlpool was developing the Niagara project, they saw -- if you could highlight this Mr. Brooks -- the four main features for the Niagara water dispenser is extendable arm, slide-out tray, fast-fill, measured fill. Would you agree with that, that during Whirlpool's development of the Niagara project, there was a focus on four main features?**

A. **I think there was a focus, as I read this -- again, I have not seen this document before. I think that whoever was the author of this document, in July of 2004, which predated the launch of this product by a year, would have believed those four to be -- I think those are consistent with four on that chart that we looked at with Mr. Cottrell as well.**

Q. **Would you agree these are the four main features?**

A. **At this time, these folks believed in it. So the two we are missing are the extendable -- we are missing nightlight and the bigger cavity, I believe.**

These are four critical features of the dispenser.

Q. **You will agree that when Whirlpool advertises the features of its water dispenser today, not in 2004, but today, it's, again, these same four main features, water arm, slide-out tray, fast-fill, measured fill?**

A. **I think that's fair. I don't think in this order. Let me be clear how I answer this. I think those four are things we talk about. Obviously, increasingly less on the extendable water am, because as we move away from it in future launches. But I don't think that this is the order in which we find the consumers, as we saw earlier, the consumers find it relevant. I just want to be clear.**

Q. **Whirlpool has a website. Right?**

A. **Yes, we do.**
Q. **You have been on the website?**
A. **I have.**
Q. **Whirlpool uses that website to advertise. Right?**
A. **Amongst many other reasons, yes.**
Q. **Are you aware of a video on Whirlpool's website for the dispenser mechanism? And these are the four features that are highlighted on that video today.**
A. **I haven't seen that video in a while, but I will take your word for it.**
Q. **I could play it. If it would refresh your recollection, I have it. Would you like me to play it?**
A. **Sure.**
Q. **Mr. Brooks, let's go to PTX-547.**

(Video played.)

BY MR. SHARMA:

Q. **Mr. Langbo, Whirlpool is still advertising on its website the rotating spigot and the extendable tray. Correct?**
A. **I agree with you, yes.**
Q. **And in those different configurations, measured fill and two times flow, did you see that also it was being shown with the extendable tray and rotating spigot extended?**
A. **I saw those four things were distinctly called out, yes.**

Q. **Now, Mr. Langbo, today, the refrigerators that Whirlpool makes for Kenmore that have the automatic spigot, I think you referred to it as the automatic spigot. Do you recall that?**

A. **I might have referred to it as that.**

Q. **When Mr. Cottrell was talking to you, what do you call the spigot action?**

A. **I call it a movable spigot.**

Q. **Is it a spring mechanism or is it manual?**

A. **Both.**

Q. **For Kenmore?**

A. **I don't know that. For Kenmore, I am not sure of that.**

Q. **The one's with the spring?**

A. **Okay.**

Q. **Do those have the two times fill or the fast-fill feature?**

A. **My understanding is we have Kenmore -- I don't know about the movable spigot, but in terms of the actual fast-fill technology for Kenmore, we have models that have fast-fill and we have models that we manufacture for them that do not have the fast-fill technology.**

And the reason for that is that they wanted claims around their filtration, so the filter we use in the base grille of the unit, the side-by-side, precludes that

technology, precludes the two X or the fast-flow technology claim.

Q. Were you saying in response to my question that the Whirlpool refrigerators for Kenmore don't have two times fill? Is that what you were saying?

A. Can you repeat your question?

Q. I wasn't sure if you answered it. My simple question was: The refrigerators that Whirlpool makes for Kenmore that have the spring spigot, they do not have the fast-fill feature?

A. I can't answer that. I can tell you that my understanding is we have advanced dispensing models that we supplied to Kenmore that have -- some of which have the fast-fill technology, and some of which don't. I don't know whether they have springs, spigots -- I am assuming they all have spigots -- room for spigots, but I don't know that.

Q. If it had the fast-fill feature, it would at least be on the user manual or on the face of the refrigerator somehow. Correct?

A. To be clear, I don't market Kenmore. That is not my responsibility. I would assume Kenmore would want to talk about that. Again, I think we have models that we produced that have fast-fill and models that don't have fast-fill.

Q. Now, Mr. Langbo, in the cross binder that you have in front of you at tab 1 is DX-3006.

I believe Mr. Cottrell, your counsel, talked to you about this document. Are you there?

A. **I am.**

Q. **How old is this document?**

A. **This predates the launch of -- I don't know the exact date. But it certainly predates the launch of in-door-ice.**

Q. **So this is before 2000?**

A. **I would presume so, yes.**

Q. **It's an old document?**

A. **Yes.**

Q. **Let's turn to a particular page. Your counsel talked to you about some pages. I would like to talk to you about a different page that you didn't discuss.**

If you could turn to, it has the last three numbers 259. What I am referring to, there is a phrase, "How are we delivering on capacity and convenience?" And it looks like there is a list of features. Do you see that?

A. **Yes.**

Q. **In-door-ice is one of the features. Is that right?**

A. **Yes, it is.**

Q. **There are about 12 in total. Right?**

A. **I haven't counted them, but I will take your word for it.**

Q. **So it's one of 12?**

A. **Yes, it is.**

Q. **Now, Mr. Langbo, is it entirely accurate to say that in-door-ice has been driving the sales of Whirlpool refrigerators?**

MR. COTTRELL: Your Honor, I think that mischaracterizes the testimony.

THE COURT: I do agree with you. I would sustain that objection.

MR. COTTRELL: Thank you.

BY MR. SHARMA:

Q. **Mr. Langbo, does Whirlpool's in-door-ice feature drive the sales of Whirlpool's refrigerators?**

A. **Drive quantities? Your question --**

Q. **Would you like to use "quantities"? That is fine.**

A. **Can you ask the question again? I think it's very broad, and I don't understand it.**

Q. **I felt like you were --**

THE COURT: It doesn't matter what you felt.

MR. SHARMA: I apologize, Your Honor.

BY MR. SHARMA:

Q. **Quantity of sales, let's take that. Do you believe Whirlpool's in-door-ice feature drives the quantity of Whirlpool sales of refrigerators?**

A. **In terms of volume, yes, I think in-door-ice is one of the key features, if not the key feature, in helping us achieve our quantity and our objectives, yes.**

Q. **Now, Mr. Langbo, earlier you listed trade partners that you have worked with.**

A. **Correct.**

Q. **I wasn't sure, and I might have missed it, is Best Buy one of the trade partners you work with?**

A. **Yes, they are.**

Q. **And the period of 2003 to 2006, was that one of the trade partners you worked with?**

A. **I was responsible for -- I failed to include that area. I was first responsible for the Best Buy account at Whirlpool from 2003 through 2006. The middle of the year.**

Q. **Mr. Langbo, let's go to tab 2 of your binder, PTX-186, if we can pull that up on the screen.**

A. **Yes.**

Q. **To start with, Mr. Brooks, if we could just expand from the subject area.**

Mr. Langbo, if you can confirm, this is an e-mail to you?

A. **Yes, it appears to be.**

Q. **That is from Jeffrey Hurdle.**

A. **Yes, it is.**

Q. **It appears from the subject to have something to do with Best Buy refrigerator buyer?**

A. **Yes.**

Q. **A very candid conversation?**

A. **Yes.**

Q. **Now, I would like to talk to you about paragraph 2. You will agree, at least in 2004, consumers for Best Buy preferred the styling and functionality of exterior electronics over Whirlpool's IDI story.**

A. **It appears this is a summary of the opinions of a -- of the buyer Theresa Spicer at Best Buy. So I won't agree to that. You asked me if I agree. I don't necessarily agree. This is the opinion of one person.**

Q. **Then would you agree that it seems that from November 2003 to sometime in 2004, Whirlpool's sales were slipping at [redacted] from [redacted] percent to [redacted] percent?**

A. **Again, I assume so, based on the content of this e-mail.**

Q. **Mr. Brooks, if we can go to the full e-mail. It's the second half concerns, if we can expand that.**

Do you see that last sentence, [redacted]

Do you agree with that statement? And this is 2004.

A. **At [redacted] I would agree with that, based on the content of this e-mail, sure.**

Q. **I would like to turn --**

A. **I would like to clarify that. As I read this bullet in its entirety, I don't know whether this is referring to a**

specific price point or model on their floor. Are we a third best-selling model? I don't know. Sorry to interrupt you.

Q. That's fine. Let's turn to PTX-617. That is tab 3 in your binder. We were talking about this -- sorry to hop around. We were talking about this document a moment ago. This is a 2004 document. I want to take you to a different page in this document that ends in 497.

Have you ever heard of IDI being talked about in the context of how many additional pizza boxes you could put in your freezer?

A. I have.

Q. Let's look at the first point. This is a Niagara document. Correct?

A. Correct.

Q. The dispenser system was more interesting and more important to respondents than the additional space in their freezer and the pizza boxes.

This is what consumers or focus groups were telling Whirlpool in 2004. Correct?

A. In 2004, before, again, looking at this document, the date of creation, July 2004, a year before we launched the advanced dispenser, which is, I assume, what they are talking about, the dispenser system.

Q. This is actually before you launched the advanced

dispenser but four years after you launched IDI. Correct?
A. Correct. I think we had very, very high hopes for fast-fill and advanced dispensing in the marketplace as a meaningful innovation.
Q. It seems, actually, somewhere between a [redacted] and [redacted] more for the system -- the feature. Correct?
A. According to this research, correct.
Q. There is another page in this document, it's 513, ends in 513, in-door-ice versus dispensing system. So this seems like this is IDI versus Niagara. Correct?
A. I think it's fair to say, versus the dispensing -- I think we should assume that means Niagara in this case. Yes.
Q. And you understand that LG's '121 patent that is in this case is accusing the features, the Niagara features that Whirlpool puts in its refrigerators. Correct?
A. I don't have a deep understanding of patent numbers, nor which patents. So I didn't understand everything you said there. I kind of get the gist of what this case is about, but I don't have deep understanding of patents.
Q. You understand that LG is asserting a patent against Whirlpool's feature set that is the Niagara feature set. Correct?
MR. COTTRELL: Your Honor, I think I can let that one go. We are starting to get a little beyond the

scope of the direct.

THE COURT: We are.

MR. SHARMA: I will go back to the importance of IDI.

BY MR. SHARMA:

Q. **Have you heard these three main reasons before that respondents give for why they prefer the Niagara dispensing system over IDI?**

A. **Your question included a statement that I don't agree with fundamentally. If I may explain.**

Q. **Let me try a different question.**

You would agree that as part of this research, the respondents to this research indicated that they preferred the Niagara dispensing system over IDI, and three main points, three main reasons why. Is that correct?

A. **At the time before this advanced dispenser came to market, I think this is probably what we were talking about internally at Whirlpool. So I don't agree, this might have been what we were thinking before we launched advanced dispensing. I can tell you these have not come true. So I am wrestling a little bit with agreeing with something that predates a launch and which predates a lot of history that I have got in the marketplace.**

Q. **Mr. Langbo, you also indicated that as part of your work at Whirlpool, you have worked with Sears?**

A. **I have.**

Q. **I would like to take you to PTX-117. This is tab 4 of your binder. Kenmore, that is the refrigerators that Whirlpool makes for Sears, at least some of the Kenmore brand. Correct?**

A. **Kenmore is owned by the Sears Holding Corporation. And we supply certain refrigerators under that brand.**

Q. **I would like to direct you to a particular page in this document. It ends with 445. Are you there?**

A. **Yes, I am.**

Q. **So it appears to be a statement from** [redacted]

[redacted]

I apologize, is WHR referring to Whirlpool?

A. **I would assume. That's our ticker symbol, I believe.**

Q. **Do you see the rationale for this statement,** [redacted]

[redacted]

A. **I have not seen this document before. Do you want me to take a minute to review the entirety of the document?**

Q. **You know what, that's fine.**

Do you know who Dean Schwartz is at Sears?

A. **I do.**

Q. **Who is Dean Schwartz?**

A. **Dean is the former buyer for the refrigeration**

business. I believe he is still at Sears. I am not sure of that.

Q. **So in 2005 Dean Schwartz was involved in Whirlpool's relationship with Sears. Corrects?**

A. **Yes, I believe he was.**

Q. **I am going to move on, Mr. Langbo, because the documents I have discussed so far have been 2005 and backwards, earlier. I am going to jump ahead now and go to 2007.**

By 2007, is it your belief that Whirlpool's IDI feature was still -- was it still a compelling feature to consumers?

A. **Whirlpool's in-door-ice feature remains to me today to be very compelling to consumers in our trade.**

Q. **Do you know who Kenneth Whah, Mr. Kenneth Whah of Whirlpool is?**

A. **I do know Ken Whah.**

Q. **Who is Ken Whah?**

A. **Ken Whah is a colleague who is now actually in our laundry business. He is in product management at Whirlpool.**

Q. **Let's move to the next tab. This is tab 5, PTX-115. This looks like more Whirlpool research. I apologize for the size. This is kind of consumer research Whirlpool does from time to time?**

A. **Yes. I have not seen this document before. But I**

would assume, based on the first page, it looks like it's Whirlpool.

Q. I believe the first page is created by Whirlpool.

Let's go to the page of this document that ends in 051. If we can enlarge the top half of this document.

A. Can you tell me the page again?

Q. 05 -- there is a page 4 on it as well. There is a normal page 4. Then you have got the longer page that ends in the 051.

A. 051, excuse me.

Q. 051, sorry.

A. Thanks.

Q. So this is in 2007. Right?

A. I would assume so, based on the heading of the first page.

Q. It looks like, it seems that the refrigerators that Whirlpool is making [redacted]

Do you remember hearing anything about this in the 2007 time period?

A. Again, I wasn't part of this -- I didn't create this document. But I assume, based on what is written -- I don't know who the author is, but if it's Whirlpool/Kenmore, I have to assume that.

Q. You see it's talking about the in-door-ice, IDI

system. It is an exciting feature. You agree with that. Correct?

A. **I think it's a compelling feature, yes.**

Q. **But on this document it says it's not compelling enough to accommodate for average interior or mechanical interface. Do you agree with that?**

A. **I don't agree with that. I see it written, but I don't personally agree. And I have got a fair amount of experience in the market.**

Q. **Let's look at the next tab. This is PTX-122. This is your tab 6. Do you know who Smith-Dahmer is?**

A. **Yes, I do. They are a consumer research firm that we use.**

Q. **And I am going to enlarge a portion of this document, because it's small in type. It's this box here, Mr. Brooks. The first box. Thank you.**

So this appears to be a 2007 research done by Smith-Dahmer. Do you agree with that?

A. **It appears to be a request for research, yes.**

Q. **Now, do you see where it reads, "Consumers will not choose mechanical controls and IDI over a model with electronic controls and no IDI. Inclusion of IDI alone also did not drive a clear interior preference."**

Do you know what that is referring to?

A. **No, I don't have a context for this. But again -- no.**

I don't have a context. The comment you have highlighted there, "consumers will not choose mechanical controls and IDI over a model with electronic controls and no IDI," I don't believe to be true because I sell a -- frankly, I sell a lot of mechanical IDI models in the marketplace against competitors who have electronic controls and no IDI. So I don't believe that to be true.

Q. Mr. Langbo, I would like to talk to you about LG's in-door-ice system.

MR. COTTRELL: Your Honor, I think this is definitely getting beyond the scope of the direct, LG's in-door-ice system.

THE COURT: Sustained.

MR. COTTRELL: Thank you.

MR. SHARMA: I have no additional questions.

THE COURT: Mr. Cottrell?

MR. COTTRELL: Short redirect, Your Honor.

THE COURT: All right.

REDIRECT EXAMINATION

BY MR. COTTRELL:

Q. Mr. Langbo, Mr. Sharma played a video for you. Is that correct?

A. He did.

Q. Is that the first time you have seen that video?

A. I recall seeing it a long time ago. I am ashamed, I

probably should be watching it, it's on my website. It's been a long time since I have seen that video.

Q. Did you happen to see where the person in the video moved the movable spigot?

A. I did.

Q. And that was a manual movement?

A. It appeared to be very manual. I followed the finger all the way to the back.

Q. Mr. Sharma asked you some questions about the hopes for Niagara prelaunch in 2005 and even compared it to the IDI that had been present for three or four years. Correct?

A. Correct.

Q. Did Whirlpool's hopes for certain of those features, such as the movable spigot, really pan out since 2005?

A. No. I think the concept of fast-fill has been received well, the two X flow in side-by-sides have been received well and consumers find value in it. Particularly those consumers that have an older unit that bring the fast-fill technology in and realize how fast they can fill up one-liter water bottles versus the previous unit.

But the rotating spigot is -- as I mentioned, we are phasing out of it. We know bringing it in the model, Kitchen Aid brand, French-door. In side-by-sides it is my understanding as well, as we bring out next gen, it will not have the rotating spigot. It's that research we looked at,

I think we really need to take in context, because -- we are hopeful with every launch of new innovation that it is going to be a smashing success. And I think parts of the advanced dispenser, as I mentioned, were a success. But nothing has been as successful in the marketplace as in-door-ice. It's just been an enormous innovation for our company.

Q. **That remains true in 2010?**

A. **Absolutely.**

MR. COTTRELL: Thank you, Mr. Langbo.

THE COURT: Thank you, Mr. Langbo. You are excused.

(Witness excused.)

THE COURT: Ladies and gentlemen, we have come to the end of our day. I just want to remind you of one specific area of instruction that I gave you before, as a departing instruction, in light of our witnessing today as a part of this record the use of the Internet. I want to remind you not to conduct any research. You are directed, avoid the appliance departments of any stores. I am serious about that. I am not telling you don't go to Home Depot or Lowe's or Best Buy or any other consumer outlets, Costco or whoever carries these things, but you must resist the temptation to conduct your own research. It could be a very innocent thing. You are going to decide this case only on the evidence that you hear in this courtroom. Am I clear on

that?

Travel safely. We will see you at 9:00.

(Jury leaves courtroom at 4:32.)

THE COURT: Those in the well of the court may be seated or leave or remain in the courtroom as you desire.

Counsel, what I am interested in from you today or this evening is a report on the status of the discussions that I hope you have been having about final jury instructions and the verdict form.

Mr. Partridge.

MR. PARTRIDGE: Yes, Your Honor. Last evening we sent a revision of the verdict form to counsel for LG, to Mr. Coyne, where we had compressed it down to -- from some of the things you saw earlier, to something that I think was about eight pages. And he either late last night, I didn't see it until this morning, I think it was very early in the morning, sent their version.

There is one fundamental question that you can help us with, and I think we can work towards a solution of a lot of the other issues.

The fundamental difference, I think, fundamental difference -- there are some little differences -- but the fundamental difference is that we think it's clearer to have a verdict form that goes patent by patent by patent.

And LG's verdict form goes infringement issues

for all patents, validity issues for all patents, then damage issues for all patents, and I think if you told us which way you wanted to do that, we then could do a reconstruction of our drafts. I think that's fair.

That's the fundamental issue, Mr. Coyne, as you see it?

MR. COYNE: At this point, Your Honor, I think it is.

THE COURT: What is the difference in the number of pages?

MR. PARTRIDGE: I think your pages are pretty close to ours at this juncture.

MR. COYNE: Your Honor, I didn't do a word count. We have ours in a tabular format. I think they are approximately the same length, but the tables are taking up more space. So I think theirs is at eight and ours is ten. But the table format is just occupying more space on the page.

THE COURT: Page-wise you are close. So that eliminates that. Mr. Partridge, then I will hear from Mr. Coyne. What is your view as to the benefits of one over the other, or the disadvantages?

MR. PARTRIDGE: When I look at this, because we have multiple patents, I think it's confusing. Even though, you know, they are dealing with infringement, I think at

this point they are going to be thinking of this patent by patent more so than infringement across the board because we have some patents and they have some patents. I suppose if all of the patents were from one party, that might make sense. But since they are going both ways, I think, as they are the plaintiff here, here is their patent, infringement and validity, damages, then our patents, infringement, validity, damages on one, infringement, validity, damages on the other. I just think it's more logical. I can't give you a better explanation than that.

THE COURT: That is fine.

Mr. Coyne.

MR. COYNE: Your Honor, going back to when we drafted these a couple months ago, my thought at that point was to do the infringement upfront. They would have all the issues with the same standard of proof. Then, of course, the damages I put last, just kind of out of tradition, with the same lower standard of proof and all the questions with the higher standard of proof are in the middle, willfulness, obviousness, anticipation, et cetera. At least that was my sophomoric view of life at that time.

I don't know that we are wedded to this. I think we might be able to make further progress. As I have talked through this with my staff and we have talked to Mr. Partridge, I am not going to be adamant about it. If Your

Honor would prefer to have it patent by patent, I think it's perfectly fine.

THE COURT: I think it would be helpful for me to have both iterations so I can take a look at it tonight and during the day tomorrow and I will let you know. But continue to work on it.

MR. PARTRIDGE: We will send those as soon as we get back. I think it will take you five minutes to look at them and decide which is the better form.

On the instructions, last night we sent a tabulation where we decided -- just to try to simplify this whole process, we decided we will go ahead and start with theirs, rather than get into this trying to merge these two documents. It was too complicated. So we sent a table in which we identified those to which we could agree, those to which we could agree with modification, and those to which we thought we might not be able to reach agreement.

I really appreciated, actually, Mr. Coyne came back with an expansion of the table with another column, in which I think a lot of these we are going to be able to work out. I hadn't raised this with you, Mr. Coyne, until right now.

But our thought would be, I would like to assign Mr. Spears as our point person to talk to whoever his point person is to have them -- because he is an expert in doing

this and Mr. Coyne seems to have someone who is an expert in doing this. I think if they get their heads together, we may have three or four issues for you.

THE COURT: Well, that is optimistic. I hope you are right.

MR. PARTRIDGE: I actually think it's possible.

THE COURT: Then that would be extraordinary. And I would welcome it.

MR. PARTRIDGE: That's what Mr. Spears told me. I will represent, that was his representation to me.

THE COURT: I think the idea, fundamentally, to assign a point person from each team is a good idea. And then we can talk a little further.

So how are we doing time-wise?

MR. PARTRIDGE: We had anticipated originally that we would be able to close our case tomorrow morning. That was in our plan all along. I think we are on that schedule, that we will close our case tomorrow morning.

We do have a few, a couple of depo clips that are short to play. And we have a couple that we have decided, because of the Korean translation, it's too much. So what we are going to do is read them, I hate to have to do it the old-fashioned way. But it cuts the time in well less than half. So we have a couple of those. And we have two witnesses tomorrow, Mr. Marcy, who they wanted to

examine. I will examine him for a short period of time. Then they will do their cross. And we have our damages expert, Mr. Nawrocki. They have given us their list of witnesses. I think by the afternoon we will be starting on their responsive case.

THE COURT: Okay.

Mr. Coyne, from your perspective?

MR. COYNE: Yes, Your Honor. I think right now we have made good progress last night. There is probably -- I am loathe to even tell Your Honor how many we started with. But we got rid of more than half of them just in the first round. I think there will be a half-dozen or fewer issues that we would be bringing to the Court.

With respect to the time, by our count, we are a little ahead now. We have got a little more time. We have got a lot of short witnesses coming up. Unfortunately, there are many of them, because we have a lot of issues we have to touch on, as well as some depositions that we are going to need to read as we went through the subpoena discussion a few weeks ago.

One issue did come up today and one issue came up last week that I would like to bring to the Court's attention and get some guidance.

We had this discussion with Mr. Eui Chung's deposition today, that was being played. What Mr. Partridge

and I had agreed originally, I did not object at the time, Your Honor, because I did not know who cross-designated the privilege objections and I didn't want to raise it in realtime and it turns out that it was me who designated them and causing a kurfuffel over whether there should not be one. I looked at it over lunch. The one that I am most concerned about would be the instruction not to answer, as Your Honor may remember. It looks to the jury like we are hiding information.

THE COURT: Indeed, it does.

MR. COYNE: We did not designate that. It is of grave concern to me. I am not going to request that the Court give a curative instruction right now, but we are going to ask for an instruction at the conclusion of the case that attorney-client and redactions are things that happen in cases and you can't draw an inference.

THE COURT: You wouldn't disagree with that, would you, Mr. Partridge?

MR. PARTRIDGE: Your Honor, I don't totally disagree, but the facts that were stated to you just now are not how we view what happened here.

We actually did not designate the objection and the instruction. We did an original designation of a portion of that transcript. And LG's counsel, and I don't know who at LG did this, came back -- I can hand you the

page where this arose. You can see in yellow what we designated, and in pink what was counter-designated. After that, there was a series of, well, if you are going to counter-designate that, to complete it, you need to do this or that. And we had a problem with one of their designations mentioning the ITC. Then in the end they wrote back to us and said we accept these designations.

So they started this instruction not to answer. If they wanted to do it, that was fine with us, but then we needed to make sure that it was complete, and then in the end they agreed to it.

Here was the first counter after our initial proposal.

THE COURT: Again, pink is --

MR. PARTRIDGE: Pink is LG, the yellow is ours.

THE COURT: Okay.

(Pause.)

Go ahead.

MR. PARTRIDGE: Because of that reference to the ITC, we went back and said, gee, we got to take out the ITC, if we are going to put in that objection. Can't we crop that out of it. And back and forth about how best to do that.

Then on Tuesday night -- Tuesday afternoon, March 2nd, this is the last communication on this

particular -- I believe it's the very last one. It was the last one before we prepared the final tape, from Ms. Weimer, that says, with our counter stopping at 11 -- 111.5 and your counter-counter including 11.10-1113.2, this is acceptable.

So there wasn't any hiding designations. In fact, we didn't start down this path.

THE COURT: What you are saying? I see in pink, just at page 112, where Mr. Davis says, "Actually, there is no way for me to allow him to answer that without revealing privileged communications. So I am going to have to instruct him not to answer."

Then there is no Whirlpool designation until the following, "The Witness: I am not going to answer that question."

Is that correct?

MR. PARTRIDGE: Correct, Your Honor. I almost asked for a sidebar. But after that exchange, when Mr. Coyne used that document with Dr. Caligiuri that had all the redactions in it and they decided to use that, and then say, oh, gee, look at the last final version of it with all those other things redacted, I thought, this was the same kind of thing we had just done with Dr. Caligiuri. So given that they had approved it, I thought, well, they must be fine with this, because they approved this and we just went through this with Dr. Caligiuri. And I thought at that

point in time that it wouldn't be necessary to ask you for a sidebar on this.

Now that this has arisen I wish I had. But it seemed like we were good to go, especially when we had their acceptance of the final version of this thing.

THE COURT: Regardless of what happened with Dr. Caligiuri, you thought you had an arrangement.

MR. PARTRIDGE: I thought we had a deal. It had gone back and forth multiple times. And we didn't start down the path of instructions not to answer.

THE COURT: Mr. Coyne?

MR. COYNE: Yes, Your Honor. What Your Honor is missing -- --

THE COURT: Here.

MR. COYNE: I wanted to save the Court a little time. By my count there were seven exchanges of e-mails on these designations in the last 24 hours. I don't want to burden the Court with the pettiness of the back and forth. The bottom line is these are counter-counter-designations by Whirlpool, is how the dust settled. I am not trying to lay blame for it. But we have an issue. I have taken on some water, quite frankly, with the jury. And there are other issues in the case that I am wrestling with where I am doing that already.

We are asking for not a curative instruction. I

understand where we are. We are all big boys and we will deal with it. But I am asking for an instruction at the close of the evidence on the attorney-client privilege and redaction issue.

THE COURT: The redaction? With Dr. Caligiuri?

MR. COYNE: Your Honor, my gut feeling here is that Whirlpool took the opportunity to ask that with Dr. Caligiuri. The redactions are attorney-client privilege redactions. There is an analysis in that document. That is the final project report. What it includes, what LG sends up the ladder, and maybe we will change this in the future -- but what they send up the ladder for final project approval is the engineering analysis, as well as the IP department and legal analysis. The information that is redacted on that last 34 pages is the prior art searching, the legal analysis, the thought process, and the mental impressions of the attorneys on why they cleared it. We have not waived privilege, and we are entitled, under *Knorr-Bremse* and *Seagate*, to retain that privilege without it being left with the jury to draw an adverse inference.

All we are asking for is a final instruction that this is normal course and they shouldn't draw an inference just because that document has been redacted or because there are privilege objections.

MR. PARTRIDGE: Your Honor, it's interesting

that we had two documents apparently created on the same day. Purportedly, they are created on the same day. The final version that we used in our examination and the one that Mr. Coyne used. And the one that Mr. Coyne used and what he relied on in that examination was the conclusion of the analysis we are free and clear with respect to infringement. And he put that before the jury in the face of having redacted the basis for it, which could have been a negative, at least in part.

While we aren't any longer in the position of drawing adverse inferences post-*Seagate* with respect to this, the law is clear that the jury is allowed to include, without the adverse inference instruction, is allowed to consider that as one of the facts they look at for purposes of willful infringement.

What we have in this record right now is simply an absence of having sought advice of counsel. No adverse inference that flows from that. It's a fact that that occurred here. And actually, Mr. Coyne, by using that very statement in that document, which is apparently the conclusion that someone drew, who was advising LG, we don't for sure -- as a matter of fact, I am not sure how much of this is on the privilege log. That goes back quite a ways. But now we are left with confronting a statement they now want to rely on that they avoided the patent, which belies

the document from earlier that same day. Now the document includes all this redacted information.

I think the jury is entitled to know that, in fact, there is no advice of counsel that they are relying upon at this point. And they can do with it what they will, because that's one of the many facts that now they are allowed to consider with respect to willful infringement.

MR. COYNE: Not to play ping pong with you, but Mr. Partridge and Mr. Spears keep referring to the document they used as the final. It is not. There is evidence in the record, we are out of the hearing of the jury, there was an ITC case. They heard testimony during it that it wasn't the final. And they keep proffering it as for it's the final report. The final report, the conclusion is in the engineering section. The gentleman who is responsible for it is here to testify and he will take the stand tomorrow.

It's not a legal analysis that he is presenting in that line. It's his engineering view of what they accomplished in the project. And he will be there to be cross-examined, and he has testified about it.

We are not relying on the advice section. That's why it was redacted. It has been redacted for two and a half years. This has not been an issue. We have gone through the case.

The only thing I am trying to achieve here is

that we get some fairness that the jury not be left thinking that we are hiding the ball because of privileged information or whatever the Court wishes to tell the jury about the redactions, but that's why they were redacted.

And under *Knorr-Bremse* and *Seagate*, it is improper to leave them hanging to draw that conclusion, which I understand --

THE COURT: You mean it's improper to leave them --

MR. COYNE: Your Honor, my fear is they are going to draw the conclusion that because the information is redacted, that we are hiding something or they can draw some inference against us. We were simply asking for a *Seagate-Knorr-Bremse* type of instruction, where you want people consulting with their lawyers. That is the bottom line. You want them doing this for public policy reasons. We are simply asking for a final instruction on both sides. The other side, Your Honor, both sides have a lot of redactions in the documents. This cuts both ways.

THE COURT: But I have a sense, unless I am missing the issue, part of Mr. Partridge's complaint is the way that LG elected to use the redacted document, so-called final version or not. No?

MR. COYNE: No, Your Honor. Because what he is reading out of -- he is reading out of the engineering

section of the report. And it is a draft version of the report. Dr. Lee is here to testify about that.

He was the project leader. He can explain it again as he has under oath previously.

THE COURT: I don't think I have to decide this right now.

MR. COYNE: Okay, Your Honor.

THE COURT: I really don't. We will see how further evidence comes in, then we can revisit the discussion if necessary.

MR. COYNE: There is one other privilege issue. We had a document that was produced originally in this case two and a half years ago that we have been relying on, leading up to this trial. Last week, when we designated it as an exhibit for -- I can't remember what exchange it was, Whirlpool then demanded it back claiming it was privileged.

We have offered a compromise to redact any arguable portions that can be privileged. What it is is an e-mail string that attaches the Korean patent application, that shows that Whirlpool is aware of the Korean patent application in 2005.

That is the only fact that we are interested in the document for. They clawed it back. We gave it back to them.

But the fact that a public document is being

passed around inside Whirlpool is not privileged. And several of the strings in that e-mail string are between businesspeople just exchanging the information. There is no arguable advice in the document. It is simply like a cover letter to the Patent Office.

THE COURT: So the issue is?

MR. COYNE: We have offered them a redaction of the document to say all we really want is the date and the fact that this document was attached to it. We would be happy to do a stipulation in lieu of it. But so far, we are being met with nothing. They are simply saying, no, it's privileged, we are clawed it back, you get nothing for it.

It is material because we have heard the cross-examination of Dr. Rao the other day where he is being challenged. And I asked Mr. Schwyn -- I was hoping maybe we could get this out of Mr. Schwyn without approaching the Court with it. He doesn't remember. They do landscaping twice a year, but he doesn't recall this. Well, there is an internal document that shows that they did have it. I don't want anything more than the fact that as of a certain date they had knowledge of it.

THE COURT: Mr. Partridge?

MR. PARTRIDGE: Two points, Your Honor. The first is, the document, I am advised, was not on their exhibit list and that this was a request during the

preparation in the last few weeks to add this exhibit, which we then discovered had been inadvertently produced in the first place. And both sides have inadvertently produced documents and clawed them back, as is normal.

Now what we are faced with is my second point, that, in essence, is the content of a privileged communication is being used in order to get us to enter into a stipulation about the subject matter of the privileged document.

I have a problem with that.

THE COURT: Is there not some other way --

MR. PARTRIDGE: I suppose. And I am willing to think about this overnight, whether there is some kind of stipulation. I certainly don't want to put a document up there with everything --

THE COURT: I understand the point.

MR. PARTRIDGE: -- with everything redacted out and the title of it.

THE COURT: It may be a hotly contested point, but it's still one point and it's a date.

MR. PARTRIDGE: It doesn't seem to me to be something that is going to be case turning.

THE COURT: I don't think so.

MR. PARTRIDGE: I will think about it. Maybe there is a way we can work that out, Your Honor.

The only thing I would add about our conclusion here today is that we may have some issues for you in the morning. I am hopeful we can resolve some of these things tonight. But there are some outstanding issues.

THE COURT: Do you want to approximate how much time you think it is going to take to address them?

MR. PARTRIDGE: Since we are starting at 9:00, I would feel more comfortable starting like 8:15 or so with you, if that is possible.

THE COURT: We will start at 8:30. If we need to keep the jury an additional 15 minutes, we will do that.

I like to have a little peace and quiet in the morning when I come in.

MR. COYNE: One final point. I don't want to mislead the Court. I said a Korean application. It is the U.S. publication of that document.

THE COURT: Okay. Anything else?

MR. PARTRIDGE: Nothing from us.

THE COURT: See you at 8:30.

(Court recessed.)