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
Friday, March 5, 2010
8:40 a.m.
Trial - Day Five

- - -

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.,
JEFFREY W. ABRAHAM, ESQ., and
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Counsel for Defendant and Counterclaim Plaintiffs

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THE COURT: Good morning, please be seated.

(Counsel respond "Good morning.")

MR. PARTRIDGE: Your Honor, we have a few issues this morning. Fortunately, we resolved a lot of them last night. The first witness we are calling this morning is Dr. Hank Marcy, and there are two exhibit issues. One concerns Exhibit 57. I know from asking him this morning that he doesn't have personal knowledge of it. It's been one of our objections, but I suppose we can deal with that realtime and not bother you with it.

THE COURT: We can deal with it right now.

MR. PARTRIDGE: I am happy to do so. It's Exhibit 57, Exhibit 123. Exhibit 57 is up here now. And it's a report on an international builders show, as you can see from the title, from 2006. Mr. Marcy says this is not something he has seen before.

If we go forward with it, I want to be sure that they ask him that question first, because then he can say that, as opposed --

THE COURT: Perhaps, Mr. Partridge, rather than just jumping into it, you can give me a little background as to Marcy.

MR. PARTRIDGE: Thank you. I am sorry, Your Honor. I am trying to go through this too quickly this morning.

Dr. Hank Marcy is the former vice president of global technology who left Whirlpool last Friday and started a new job at Bissell Corporation Monday of this week.

We are calling him mostly because they wanted to call him. This is one of the exhibits they have identified with respect to their calling him for purposes of the trial this morning.

THE COURT: He is not familiar with this?

MR. PARTRIDGE: He is not familiar with this document.

MR. COYNE: Your Honor, there are several items in the document. I don't know whether he is familiar with it.

THE COURT: Let's assume for a moment that I am going to take Mr. Partridge's word that he is not. And you will establish that with the witness?

MR. COYNE: Yes, Your Honor.

THE COURT: One way or the other. Let's assume for a moment that he is not.

MR. COYNE: I also want to ask him about, there is a number of policies and guidelines. This is basically how to behave at a trade show. This is a trade show where they allege we have misbehaved. In particular, they allege -- and what I am worried about, Your Honor, is this is literally the last witness that they will be putting up.

And I will have the opportunity to ask this type of question to. He is high enough in the company, he was an officer, and he is in a position where he should know what's going on. He may not have written this memo, I will accept that. Mr. Partridge is representing it. He may not have seen the memo. I will accept that.

THE COURT: Would he be aware of underlying policy that is reflected in the memo? Is that your point?

MR. COYNE: Yes, Your Honor. My concern is they are going to get up on their rebuttal case, they have put their willfulness proof in, I am going to get our guys up and say, no, we weren't willful, and they're going to come back on rebuttal and say, you guys were sneaking around at trade shows, taking photographs and doing this kind of thing. In particular, what is in this document is how to take pictures surreptitiously at a trade show. Let's face it, everybody does this. I am not saying they are bad by doing it. But I want to be able to defend my client effectively by pointing out that everybody does it this way and you have your own guidelines on how to do it without getting caught.

THE COURT: Some of those guidelines looks like are in this document?

MR. COYNE: Yes, Your Honor, they are specifically at page 4, I don't want everybody in the

courthouse reading it, but I can show you the sentence under "photography."

THE COURT: Mr. Partridge, Mr. Coyne's position is that the issue is not as easily resolved by simply saying you're contending, even if it is true, that he is not familiar with the document.

MR. PARTRIDGE: He can answer those questions, though, Your Honor, and I don't have an objection to Mr. Coyne asking those questions.

THE COURT: We will let the witness establish his familiarity with the document.

MR. PARTRIDGE: That is fine, Your Honor.

The second document is Exhibit 123. This is a document that to the extent it has any relevance it would be for the Bench trial, which is their unclean hands defense.

This document talks about a strategy with respect to how, as most competitors would, documents about each of their competitors, gee, here is what we are going to do --

THE COURT: Why do law departments let businesspeople create things like this? I was in a law department at what used to be a Fortune 250 company and it used to drive me nuts.

But go ahead.

MR. PARTRIDGE: As a matter of fact, Your Honor,

this document is one that lays out a strategy with respect to our competition with these particular companies, and if we use this document, I would have to request the Court to close the courtroom to the public, because it lays out a particular strategy.

There isn't, in the document, as best I can tell, something that I would think is directly related to whether the patents in this case are infringed, whether the patents in the case are valid.

THE COURT: Mr. Coyne, would you object to the courtroom being closed?

MR. COYNE: Your Honor, I have no objection to closing the courtroom for this, but my point is with this document, they are accusing us of being an evil --

THE COURT: You don't object? He's just asking for --

MR. PARTRIDGE: I don't think it is relevant to anything in the current case. It arguably could be relevant to --

THE COURT: You did start out by saying that, that this is relevant to the Bench portion.

MR. PARTRIDGE: To the Bench portion, Your Honor.

THE COURT: Your position on that?

MR. COYNE: Whirlpool's argument is we are the

evil Asian copyist. And what this shows --

THE COURT: But, you know, they have never -- the only time I have heard that is out of your mouth, frankly, Mr. Coyne, and I thought it was unfortunate when you said it at the time.

Go ahead. That has not been the matter in which they have conducted these proceedings.

I am not naive and my head is not in the sand on this. But I am eternally hopeful that we can rise above these issues and that our jury will do that. My point, however, is they have not conducted this trial in that manner.

Go ahead.

MR. COYNE: Your Honor, the document not only includes that. It also includes a number of items of their strategic plan and it establishes very effectively, in fact, more effectively than most of the other documents that I have had access to that I can use with these witnesses, that our capabilities, in terms of advanced technology, advanced design, advanced styling, this is their strategic assessment of us as a competitor. Frankly, it is very powerful.

THE COURT: I will permit this. We can close the courtroom. I don't think there has been any press here at all, No. 1. It's mainly interested parties.

To the extent that certain people need to be out

because they are involved in certain aspects of the action, and, counsel, you can confer on that and decide who can stay and who needs to go.

MR. PARTRIDGE: I would not want any of the LG employees here.

THE COURT: Whatever you can agree on. If you can't, then I will resolve those issues.

MR. PARTRIDGE: Very well, Your Honor.

MR. COYNE: Your Honor, we have no problem with asking all the client representatives to leave the courtroom for that portion of the testimony.

MR. PARTRIDGE: The next issue --

THE COURT: I am assuming the technology, gentlemen, can remain?

MR. PARTRIDGE: That what can remain, Your Honor?

THE COURT: The gentlemen who are running the presentation.

MR. PARTRIDGE: Yes, on both sides, Your Honor, that is fine.

The next exhibit concerns two exhibits that they intend to use with Dr. Lee, Plaintiffs' Exhibit 211 and Plaintiffs' Exhibit 380, which are Korean publications, Korean patent applications that -- patent applications that are published there.

They are dated in the late '90s. They intend to use them with Dr. Lee. Dr. Lee's name is not on the patents. He is a different inventor on both patents.

THE COURT: These are prior art publications, did you say?

MR. PARTRIDGE: They are not prior art publications. They are not relying on them for prior art. There is no expert opinion with respect to them. They offered no expert opinion on the part of Dr. Lee with respect to them.

What they are telling us with respect to their use, yesterday they said they go to willfulness and copying. And there is not one word in all of the development documents from the beginning of the Bics project through the introduction of the refrigerators to the market about either of these publications.

So the intention --

THE COURT: These are both patent applications, did you say?

MR. PARTRIDGE: Yes, patent applications. They have been published, one or the other of them, they are in Korean, they may have issued as patents. But in essence, they are putting Dr. Lee on the stand to now more or less tell a story about a couple of patent applications from the '90s as having some relationship with their developments

that occurred in the Bics project some five years later.

THE COURT: And they are not prior art?

MR. PARTRIDGE: They are not prior art. It is a '701 problem, it is a '402/'403 problem.

THE COURT: You really like numbers, don't you, Mr. Partridge?

MR. PARTRIDGE: Yes. One of your former colleagues told me when I had a trial before him --

THE COURT: McKelvie?

MR. PARTRIDGE: Not McKelvie. It was Judge Jordan, he told me, I must use rule numbers.

THE COURT: I have a different approach. I think that the record is better served. If I were an appellate judge -- as we know, most our Federal Circuit judges have not been trial judges. It's just a fact -- I would rather have the lawyers say, this is why I am objecting, rather than citing a rule.

MR. PARTRIDGE: I think it's better as well. That is our objection, Your Honor.

THE COURT: Okay. Mr. Coyne?

MR. COYNE: Yes, Your Honor.

We are not alleging these are 102(b) references, we never have. We are using them to respond to the argument of copying. It is important where we start this process.

These documents establish that as early as

1996 --

THE COURT: Is it true they were never mentioned in any of the Bics documentation that we have seen thus far, the jury has seen? I think that was Mr. Partridge's contention, that there has been no mention of these applications.

MR. COYNE: In the company's internal memos?

THE COURT: In what the jury has seen.

MR. COYNE: In what the jury has seen so far. I don't know. But Dr. Bessler is relying on them for his invalidity.

THE COURT: I think one of the concerns must be, mustn't it, whether this is going to potentially matters for the jury.

Is that part of what you object to?

MR. PARTRIDGE: Yes, Your Honor.

THE COURT: Mr. Spears wants you to object on another basis as well.

MR. PARTRIDGE: They are going to see these publications which are not offered to show the claims are invalid. They are going to put them up there and say there is some connection between these and their development when the documents don't show that. And the amount of prejudice and confusion that is created as a consequence will be near impossible for me to deal with Dr. Lee in Korean.

THE COURT: If there is no mention made -- then I will let you get back into it. Here is one of the concerns I have after listening to Mr. Partridge.

Mr. Herrmann wants to say something.

MR. COYNE: Your Honor, to respond on the merits first. These two documents that the project reports are totally prospective. There is no project report, unlike Whirlpool's, where we say here is a survey of what we have done in the past.

This is part of the information the company had in its knowledge base. What I need to use this to establish is, for example, we were already working on -- we are not saying it's 102(a), 102(b), anticipatory art. We had already installed ice storage bins and dispensing devices in the door years before. And this was a continuation, Il Shin Kim is going to be testifying that these came out of his group. Dr. Lee is going to be testifying, this is information that they had in the company and were basing -- when they went into this ice and water project, were basing it from this background. We weren't starting from scratch. We were starting from this base of knowledge internally in the company and were trying to make -- these are things we have deployed in Asia.

THE COURT: The testimony related to these documents -- I am assuming they are exhibits.

MR. COYNE: Yes, Your Honor.

THE COURT: -- is directed to what issue in the case?

MR. COYNE: Willfulness. Copying. In other words, we're not getting these ideas to put the ice maker and the bin on the door with them. We have been working with these ideas in other implementations and other markets in the world for a very long time, before the patent was filed.

THE COURT: Go ahead.

Were you finished, Mr. Coyne?

MR. COYNE: Yes, Your Honor.

MR. PARTRIDGE: If that was true, there would be some mention of this in all of the documents, many, many documents.

THE COURT: Maybe that is an argument that you are going to have to make and maybe it's up to the jury to decide that, Mr. Partridge.

MR. PARTRIDGE: I understand that, Your Honor, that it could come to that.

THE COURT: In spite of your protestations that you are not going to be able to deal with it. You just began to give a hint of how you might deal with this in your closing. So I am not sure that it's as formidable an issue as you make it out to be. I wouldn't want to have to deal

with it, either.

MR. PARTRIDGE: The thing I want to be careful with here, Your Honor, is I think I am walking into a situation where witnesses who have not given reports on these documents are going to begin opining on them.

THE COURT: That is not going to happen, because you are going to object. Your team is going to be more active in objecting.

MR. PARTRIDGE: Yes, Your Honor.

THE COURT: On issues like this.

MR. PARTRIDGE: I understand the ruling of the Court.

THE COURT: Because I am not going to let that happen. But I am not going to try the case. If it happens and there is not an objection, I am going to sit there and let it happen.

MR. PARTRIDGE: Fair enough. I understand the ground rules. That works for us.

We do have a set of issues that arise -- by the way, we are going to withdraw our objection to the Bessler slides, the two remaining slides. So we don't have to deal with those.

We are going to withdraw our objections with respect to Ken Whah's deposition.

We have some inventor testimony that I am not

sure when it's going to be introduced. Is that going on today or Monday?

MR. COYNE: It depends on when you finish your case and who we have available. I think we have identified three live witnesses today. If there is sufficient time, I would like to try to plow through the live witnesses rather than read the depositions. But if we have a little gap of time, I would like to reserve the flexibility not to waste any time.

THE COURT: I agree.

My comments about objections, and again, I don't mean to seek to impose the Court's will on counsel's trial strategy, but they go for both sides, is my point. Try the case the way you want. Every once in a while I can't resist. But I would really like to do the job the way it's perceived to be done, as a neutral arbiter of the rules.

MR. PARTRIDGE: Maybe the way to do this, Your Honor, is there is a set of issues that are probably more important that could come up with the live witnesses that maybe Mr. Spears ought to address.

The depositions of employees of Whirlpool involve two issues: A violation of the Court's claim construction ruling with respect to the freezer compartment, and it's testimony that they attempted to use during the Markman ruling that you said was extrinsic evidence, and now

it's being offered from the stand, through the depo.

The second is, questions about opinions about prior art that witnesses had never seen before, which during the motion in limine process you had said was a nonstarter. Where the level of skill, the relevant time, none of that is in there. And it's really not many questions and answers. One thing I could do is just give you a highlighted portion. It's probably, added all up, three pages of testimony, and you might just look at it and X through, say, yeah or nay with respect it, and I am fine with it.

THE COURT: Why don't you do that.

MR. PARTRIDGE: I will pull these out while Mr. Spears is discussing it.

THE COURT: I am assuming that is an acceptable process to you?

MR. COYNE: Yes, Your Honor. I would like some opportunity to address the merits of those citations at some point. Is now the appropriate time or not?

THE COURT: As a general matter, you know from the pretrial conference that -- it shouldn't take the pretrial conference to inform counsel that the Court is not going to permit an expert to give testimony that seems to contradict the Court's claim construction.

MR. COYNE: Yes, Your Honor. Your Honor, if I may. Again, this testimony, we are absolutely not trying to

undermine Your Honor's authority with this jury. That is not our intention at all.

I am happy to put in whatever transitional statements or have Your Honor give whatever instructions, cautionary instructions, would be appropriate. But what the evidence will -- there is two issues that Mr. Partridge identified. This claim construction issue goes to specifically whether being mounted on the door is disposed within the freezer compartment. Several of the inventors felt that, if it's mounted on the door, it's not disposed within the freezer compartment and testified that way. We accept your construction.

THE COURT: Regardless of what the inventors thought, I have issued a ruling on the construction, of the relevant elements. We are not going to get into that.

MR. COYNE: Your Honor, the problem is many of our inventors and people that were working on the Bics project reached the same conclusion. That is our basis for --

THE COURT: You want to offer that to debate with the Court on the meaning of the terms?

MR. COYNE: No, Your Honor.

THE COURT: Then what is the purpose?

MR. COYNE: We are not offering it to debate with the Court. The only purpose is, how can we be

objectively reckless if we reach the same conclusion on this point that some of the inventors did? We agree that given the Court's construction, that view is incorrect. But the issue here is whether it is objectively reckless. And the fact that some of our people reached the same conclusion that some of the inventors reached is very powerful evidence that shows that we weren't objectively reckless. We may be wrong. Under Your Honor's ruling, we are wrong. But we are not objectively reckless.

THE COURT: Go ahead. I understand your point. Mr. Partridge, what about that?

MR. PARTRIDGE: Your Honor, the problem with that is that the claims mean what they mean.

THE COURT: You heard Mr. Coyne. I want you to react to specifically his proposal that the Court fashion, perhaps with the parties, an appropriate instruction.

MR. PARTRIDGE: The problem is that these witnesses were not looking at the patent specification, and considering the patent specification in connection with their answers to these questions.

And the witnesses of Mr. Coyne's had the patent. They had it in front of them. They were considering it during their development of their products.

And they had all the language to use in connection with their evaluation of their position.

Whereas these individuals were not evaluating the patent. They were asked general questions that are inconsistent with Your Honor's ruling, which takes into account the specification of the patent, which is what they had before them when they were taking their position.

THE COURT: Part of your point as well is that it might be misleading?

MR. PARTRIDGE: Yes, Your Honor. And they will hear something that is inconsistent with your ruling.

I will hand it up, Your Honor. I think you have heard the arguments of the parties. I am happy, obviously, with however you rule on this. We will live with it. Here is a set for Mr. Coyne with the highlighted portions that are in dispute.

THE COURT: This is all in the deposition?

MR. PARTRIDGE: Yes, Your Honor.

THE COURT: Mr. Coyne, you wanted to say something?

MR. COYNE: Yes, Your Honor. I only addressed one of the two points. The second point was the opinions on the prior art. We have taken Your Honor's ruling to heart. We have gone back and limited and taken out any of the questions where the witness was shown something they hadn't seen before and asked about it.

Those are not in. We have taken them all out.

The questions that remain are very few questions about what did the inventors think about an automatic ice maker at the time. It was their state of mind, their understanding, not giving an opinion, it was them as inventors, what did they consider at the time.

MR. PARTRIDGE: There are questions about obviousness in there, without any reference to skill in the art, asking after the fact, a witness with 30 years of experience in refrigeration engineering and a guy who had developed this product and the product had been out there eight or nine years, without reference to level of skill and the appropriate point in time in which the obviousness analysis is made, asking him if it's obvious.

The questions that they have asked our witnesses about was this common knowledge as of the '90s and the like. We haven't objected to any of those. Those are proper questions.

The questions that are objectionable are the ones that get into an obviousness question of a witness who has no frame of reference from which to answer the question.

THE COURT: Okay. I will take a look.

Mr. Spears?

MR. SPEARS: Yes. We have another issue. This is going to be a major issue once Mr. Ching Ho Lee testifies as a fact witness for LG. And then a number of expert

witnesses will be called on this issue as well.

THE COURT: When is Mr. Lee going to testify?

MR. COYNE: Your Honor, I believe it will be Monday at this point.

MR. SPEARS: We can address the issue then.

THE COURT: We will address it later.

MR. SPEARS: Okay.

THE COURT: Later may be today, Mr. Spears. I don't know. Not right now when I am trying to get the jury in.

MR. PARTRIDGE: We reached a resolution on that clawed-back document, Your Honor, so you won't have to deal with that.

We do have an offer of proof that we would like to make with respect to our damages expert. It may be that you can deal with that quickly right now.

The issue has to do with actually enhancement of damages. The witnesses are here. The experts are here. It has to do with the period of time from when they actually knew about the patent up until the actual notice kicked in.

And there is authority for the proposition that you can consider that as part of your enhancement determination if the jury comes back with a willfulness finding. We are happy to defer that until the Bench trial next week. That is fine with us.

But given how Federal Circuit law changes and evolves over time, I wanted to be on this record as having said that before we actually conclude the jury trial. And if you simply say, we will hold that over, I am happy.

THE COURT: Is there any objection to holding it over?

MR. COYNE: No, Your Honor.

MR. PARTRIDGE: We do have one other issue that could arise before we conclude our case, which is the stipulation that we are trying to work out with respect to the volunteering documents, that big binder of documents.

THE COURT: Do you want to continue to talk about it?

MR. PARTRIDGE: Yes, Your Honor. But we may have an issue for you before we close our case.

THE COURT: So, then, this morning, Mr. Partridge, we are going to start out with live witnesses?

MR. PARTRIDGE: Yes, Your Honor. Dr. Hank Marcy will be the first witness.

THE COURT: Okay. Are we ready, then?

MR. PARTRIDGE: Yes.

THE COURT: I will be back. Let's recess for a moment.

(Recess taken.)

THE COURT: All right. Good morning, ladies and

gentleman.

MR. PARTRIDGE: As our first witness, we call Dr. Hank Marcy.

...Henry O. Marcy having been duly sworn as a witness, was examined and testified as follows...

DIRECT EXAMINATION

BY MR. PARTRIDGE:

Q. Dr. Marcy, would you introduce yourself to the jury, please?

A. Hi. I am Hank Marcy. My full name is Henry Marcy, but I go by Hank. I'm married with two kids, one in college in California, one a senior in high school. I live in Stevensville, Michigan.

Q. Would you tell the jury your educational background, please?

A. Sure. I have a Ph.D. in electrical engineering from Northwestern University. I earned that in 1990. I have a Master's degree in electrical engineering, also from Northwestern, 1987. Then my undergraduate degree is from the University of Maine, in 1984.

Q. When did you first join Whirlpool?

A. I joined Whirlpool in January of 2002.

Q. And would you describe for us the positions you held at Whirlpool?

A. Yes. I had kind of three different positions at

Whirlpool. The first, when I hired in this January was being in charge of advanced product development and electronics. So essentially, all of the advanced technologies, the innovations, for our products, refrigerators, dishwashers, cooking products, fabric care products, all around the world. I was also kind of the voice and face of innovation for the corporation. I did that for four years.

For two years after that I was in charge of our refrigeration business. So it was like October 2005 to August 2007. And then for the last two and a half years, roughly, I have been in charge of technology development for all of our products from early stage technology development through to delivery of technologies into production products.

Q. **What was the last title you held at Whirlpool?**

A. **Vice president of global product technology.**

Q. **You mentioned that during that period of time during the last nine or ten years or so, you held a number of positions that involved the refrigerator business. Is that correct?**

A. **Yes. Actually, during my entire eight years, there would have been a number.**

Q. **Would you describe generally your role in connection with the refrigerator business of Whirlpool during that time**

period?

A. **Sure. When I started, in 2002, in charge of advanced product development in electronics. I would have had a team of people located primarily in Benton Harbor, Brazil, Italy, accountable for advanced product development of refrigerators. I had other teams accountable for the other products, and I would have had an electronics group accountable for the electronics that go into the refrigeration as well.**

My second role as vice president of refrigeration, now I am accountable for running the global product team, which are the four P&L owners from each of our business regions, then all of the product development. So roughly a thousand engineers around the world, in a whole variety of different locations.

In my last role, again, kind of all of the product development for refrigeration, technology development for refrigeration with people all over the world.

Q. **Dr. Marcy, who is your current employer?**

A. **Actually, my current employer is Bissell Incorporated.**

Q. **And what is Bissell Incorporated? What do they do?**

A. **Bissell Incorporated is the leader in floor-care products in the United States. They make carpet cleaners, vacuums, and a whole line of chemistry that goes with those**

products.

Q. When did you start that position?

A. Monday, this past Monday.

Q. Your last day with Whirlpool was when?

A. Friday, February 26th.

Q. A week ago today?

A. That's right.

Q. Did you volunteer to attend trial here today?

A. I did.

Q. Why did you volunteer to come?

A. Whirlpool was a tremendous part of my career, a tremendously positive part of my career and intellectual property, the technologies that go into our products, that was my accountability.

So this trial has held great interest for me and my people for quite some time.

Q. You mentioned that, and I think you said it this way, that you were the face of innovation. I want to ask you, in connection with innovation, what over that period of time was your perspective of the commitment of Whirlpool to innovation?

A. So, actually, the commitment to innovation at Whirlpool is a big piece of what attracted me. Just an incredible commitment to using innovation, to change the culture of the company to one that was focused on the

consumer and to build on loyalty to our brands.

When I say "commitment," it was right from the top, from the CEO, from my boss, the chief technology officer, a whole curriculum that thousands of people went through, certification programs, and then, from my perspective and from the perspective of all the people that I worked with, you know, trying to focus on what are we going to do to bring better features and benefits, better living, if you will, to all of our consumers. So I found that credibly unique and interesting to talk about innovation. This was a real program system around it. Then also just very exciting and kind of engaging in terms of professionalism.

Q. During your timer at Whirlpool, what was your specific role in that regard?

A. Me and my people were really accountable for all the content. So the features and of the benefits that go into our products, the technologies that provide those features and benefits, the partnerships that would be formed to drive those into production. And then, of course, I spoke at lots of conferences. I spoke inside the company all the time. How to create the management system, if you will. How are we going to measure innovation. How are we going to talk about it. How would we know we were working on the right thing. So this kind of connection from the consumer to

what's right for features and benefits in our product to what causes us to win in the marketplace and everything about that. That's what me and my organizations were really accountable for.

Q. **Are you familiar with in-door-ice, or IDI, technology?**

A. **Certainly.**

Q. **From your perspective, what is in-door-ice, or IDI, technology?**

A. **In-door-ice was all about moving the ice storage and ice-delivery system from kind of inside the freezer compartment onto the door. What did that do? That freed up all the space inside the freezer compartment, the side-by-side.**

That was how it started.

Q. **How important was the technology that you just described, the IDI technology, to Whirlpool?**

A. **I think it was huge. Over time, it caused about a 25-point shift in market share. It's just an asset. We went from being kind of one of the pack to being the clear leader, particularly in the U.S. market where side-by-sides were really the dominant -- became the dominant product, in large part because of in-door-ice technology.**

Q. **From your perspective, how important was IDI technology to consumers?**

A. **Huge. You know, I think getting water and ice through**

the door kind of drove the initial interest in side-by-sides. But, you know, if you looked at like a freezer on the top model or even a freezer on the bottom model, it looked like a lot more freezer space than when you looked at a side-by-side and you had kind of a skinny freezer, particularly when the top third of it was taken up with the ice storage and ice-making. When all that ice storage and a chute that brought it onto the door, it opened up all this space and people were like, yay, now I can really use this product. And it drove the sales of the product for years.

Q. **Did the launching of the IDI technology have an effect on further innovation work at Whirlpool?**

A. **For sure. You know, with consumers really, you know, voting with their pocketbooks, so to speak, for side-by-side refrigerators with ice and delivery of water through the door, that really drove a focus, really intense effort on how to add, how to make that feature and benefit much better, but also to add additional features and benefits around the ice and water delivery system.**

Q. **Focusing just for a moment on the side-by-side refrigerator market, did the introduction of IDI technology have a particular effect when it was first introduced in the next couple of years on the side-by-side refrigerator market?**

A. **Yes, I think there was a pretty clear shift in buying behavior to side-by-sides, again, because, you know, what looked like a fairly unusable freezer suddenly became -- looked like, you know, very usable space. So people started choosing side-by-sides over the other types of freezers much more frequently. That is my understanding.**

MR. PARTRIDGE: Pass the witness, Your Honor.

MR. COYNE: We have cross binders for this witness.

THE COURT: Okay.

CROSS-EXAMINATION

BY MR. COYNE:

Q. **Dr. Marcy, I appreciate that it's an imposition to drag you away from your new job a week after you started. We appreciate you coming.**

A. **No problem.**

Q. **Thank you.**

I wanted to talk to you about a couple of selected topics. You understand that we have also asked for you to attend as a witness on behalf of LG for some issues. Correct?

A. **Yes.**

Q. **So I may be asking questions that go beyond what Mr. Partridge asked you about. Right?**

A. **Okay.**

Q. **One of the things that you were exposed to in your position at Whirlpool is that Whirlpool was worried about losing the Sears business to LG. Correct?**

A. **Sure.**

Q. [redacted] **Correct?**

A. **There is a very specific portion of the Sears business. Of course, we sell all of our brands to Sears. But what I believe you are referring to is the Kenmore brand business. We were providing refrigerators and Sears was then selling under the Kenmore brand. Of course, we also sold Whirlpool and Kitchen Aid, Maytag, Jenn-Air, or brands for Sears as well.** [redacted]

Q. **I was not referring to the Whirlpool-branded product but rather the Kenmore-branded product.**

A. **Right.**

Q. **In fact,** [redacted] **Right?**

A. **Correct.**

Q. **And in some sense, Whirlpool is coming up short, frankly. Right?**

A. **With respect to the Kenmore brand, I think that's true. But, you know, it's actually allowed us to focus on**

our own brands to a fairly significant degree, improving the sales of those brands, Whirlpool, Kitchen Aid.

Q. **I would like to switch to a slightly different topic now.**

This is a very competitive market, refrigerators, isn't it?

A. **Yeah, it's a very competitive market.**

Q. **In fact, all of the competitors, just as a matter of everyday business, keep track of what each other are doing, don't they?**

A. **That's, you know, through a whole variety of means, yes, absolutely.**

Q. **And people engage in what is called competitive intelligence. Right?**

A. **Right.**

Q. **And there is nothing wrong with that, is there?**

A. **No.**

Q. **In fact, people go to trade shows and they look at what's in each others' booths?**

A. **Yes.**

Q. **Sometimes they take pictures of what's in each others' booths. Right?**

A. **Yes.**

Q. **And they are doing what are called tear-down, where they might acquire a unit a competitor has on the market and**

bring it back to the lab and tear it down to see what makes it tick and how it works. Right?

A. **Yes, we have a pretty comprehensive tear-down activity, where we buy products from all of our competitors around the world, really to understand not just what are they doing, but also to learn about new possibilities for implementing features and benefits and basic operation of the product. That is a pretty standard practice, sure.**

Q. **Again, there is nothing wrong with that. Right?**

A. **No.**

Q. **In fact, that's pretty much how people do their business in terms of trying to acquire this competitive intelligence in this industry. Right?**

A. **Sure.**

Q. **And in particular, with respect to the tear-downs, among the company's products that Whirlpool has torn down are LG products. Right?**

A. **Sure. Amongst all of our competitors, yes.**

Q. **And among the activities, people go to trade shows to find out what competitors are doing as well. Right?**

A. **Trade shows are often where new features and benefits are introduced. So, yes, we would often have a small group of engineers go to trade shows.**

Q. **Sir, I don't mean anything by asking you it the way I am. But it's a competitive market, so people are kind of**

looking for things, picking up literature, if they overhear things, eavesdropping. That is generally the way the industry works, because you are trying to gather intelligence about what your competitors are up to?

A. Trade shows are public events, yes.

Q. Okay. Sir, with respect to LG in particular --

MR. COYNE: Your Honor, I would like to publish on the screen PTX-123 that we had talked about.

THE COURT: That's fine.

MR. COYNE: Mr. Brooks, could you bring up PTX-123, please?

Before we get into the merits of it, Your Honor, this is the document we had a discussion about.

THE COURT: I know what document.

MR. COYNE: We talked about the confidentiality concerns.

MR. PARTRIDGE: I am okay at the moment.

THE COURT: He hasn't said anything yet.

MR. COYNE: I didn't want to do anything untoward.

BY MR. COYNE:

Q. Sir, could you turn to the next page, page 272, Mr. Brooks, that is the second page of the document.

LG and Samsung are, in particular, companies that Whirlpool has identified as strong competitors in this

field. Correct?

A. **Correct.**

Q. **Could we go to, I believe it's the fourth page of the document? It would be the next one. It's labeled "page 4" in the lower right-hand corner. That is it.**

Whirlpool has done a competitive analysis on the relative strengths and weaknesses of these competitors to try to determine where they are in the marketplace. Right?

A. **Yes.**

Q. **And one of the issues that they have identified with respect to LG is that the product is highly designed and consumer-marketing-focused. Correct?**

A. **Sure.**

Q. **And with respect to some of the other features, can we go down to page 7 of the document, Mr. Brooks? I believe it's page 6 on the lower right-hand corner. Can you highlight the portion in the center on the left-hand side, under this area here?**

One of the assessments that Whirlpool has reached about LG's capabilities is that LG is being recognized around the world for its leading design in appliances and consumer electronics. Is that correct?

A. **That's what it says there, sure.**

Q. **Can we go to the next page, Mr. Brooks?**

Sir, on the left-hand side, with the various

refrigerators, what are we looking at here?
A. On the left-hand side?
Q. Yes, sir.
A. So no, I am not sure I have seen this exact document before. But what it looks like to me is we are looking at how LG's products line up against the different brand of products, probably at specific price points or closely similar price points in the marketplace. So you have LG and Samsung products at the top and then Whirlpool's current product lineup, what we have in the market. Of course, what is at the top would be what they had in the market at the time. And what our product development and response is going to be across the bottom.
Q. In making that response --
THE COURT: Yes, Mr. Partridge?
MR. PARTRIDGE: Your Honor, I have an objection on the continued use of the document based on lack of personal knowledge, given the witness' statement.
THE COURT: He said he wasn't sure. Do you want to inquire?
BY MR. COYNE:
Q. Sir, it's your understanding that in trying to move forward --
THE COURT: Inquire into whether this witness has ever seen this document before.

MR. COYNE: I am sorry, Your Honor. I was going to ask him a question removed from the document. This was actually the last set of questions I had on the document.

THE COURT: I will let Mr. Partridge make those inquiries. Go ahead.

BY MR. COYNE:

Q. **Apart from the document, sir, with respect to Whirlpool trying to adapt its products and move forward, you would tend to benchmark against a competitor's product like an LG to try to make improvements to your own. Correct?**

A. **Sure.**

Q. **We can take that down now, Mr. Brooks. Thank you.**

Sir, does Whirlpool acknowledge that LG has features and benefits that consumers are attracted to?

A. **Yes, I think in particular LG and Samsung kind of set a new standard in aesthetic design. You can see it in the products across the way there, hiding the hinges, bringing stainless steel and what I'll refer to as a kind of euro styling to the marketplace in a fairly comprehensive way. Again, at kind of the high-end price points, I will call them. Whirlpool competes with its brands across every price point. LG and Samsung, in particular LG, focus at the higher end.**

Q. **Are the two models that we see over here against the wall, the DPX-22 and the DPX-23, the stainless steel**

refrigerators, are those examples of what you were just talking about?

A. Examples, they are, you know, not their first models they introduced. They are later on. But, yes.

Q. Sir, among the other things that you have identified at Whirlpool about LG as a competitor is that LG is able to bring products onto the market faster than Whirlpool does. Correct?

A. I would say they had a cadence of more frequent product introductions than we had. I don't know that their ability to execute is any faster or slower than our own. But they certainly were introducing products more frequently than we were introducing products.

Q. Sir, in this industry, because it's so competitive, if a feature is not proprietary, people do copy other features that appear to be attractive on competitors' products, don't they?

MR. PARTRIDGE: Objection. Calls for speculation.

THE COURT: No. You can answer that, if you can.

THE WITNESS: You know, we are always looking at the consumers' response to features and benefits. If people come out with things that consumers respond to strongly, then we would like for a way to provide a similar benefit.

You know, "copy" is probably a strong word. We always want to have it be our own. But, yes, if there is a good feature and benefit, we would like to provide that, sure.

BY MR. COYNE:

Q. **Were you involved in what Whirlpool calls it's IDI 2 project?**

A. **Yes, I was.**

Q. **In that IDI 2 project, Whirlpool identified that LG had a proprietary position in the marketplace. Correct?**

A. **I am not sure what you mean by that.**

Q. **Patents.**

A. **We were certainly aware that LG had filed patents around in-door-ice technology.**

Q. **And at Whirlpool, frequently, when you encountered that situation, you do attempt to design around or make product changes to avoid the competitors' patents. Correct?**

A. **You know, I wouldn't have specific knowledge around IDI 2 because we had what we felt was a very strong position in in-door-ice technology with patents, as borne out by no other competitor introducing in-door-ice technology for over -- roughly eight years, having been in the market.**

So specifically designing around LG patents, I am not personally aware of.

Q. **Let me ask you more broadly, then. Has Whirlpool ever**

designed around anyone's proprietary or patented technology?
A. **Yes, I would say that is a fairly common practice. Where you are looking to provide a feature and benefit and not infringe on other people's intellectual property, for sure.**
Q. **And there is nothing wrong with designing around or trying to make changes to avoid another competitor's proprietary rights, is there?**
A. **No.**
Q. **In fact, that's what you want people to do, isn't it?**
A. **Right.**
Q. **And, sir, one of the competitors that Whirlpool does look at specifically is the technology that LG is putting out on the market. Right?**
A. **I am sorry, say that again.**
Q. **One of the competitors that Whirlpool does look at is LG?**
A. **Again, we look at all the competitors, LG included, sure.**
Q. **And, in fact, at times, when Whirlpool feels a feature is not proprietary, Whirlpool copies with pride. Correct?**
A. **I have seen that term used, you know, two years of development, copy with pride, I suppose.**
Q. **But that's something that Whirlpool does from time to time, copy with pride?**

A. **On occasion.**

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

THE COURT: Mr. Partridge?

MR. PARTRIDGE: No further questions, Your Honor. Thank you, Dr. Marcy.

THE COURT: Thank you, Doctor. Good luck at Bissell.

THE WITNESS: Thank you very much.

(Witness excused.)

MR. PARTRIDGE: Your Honor, if I may, for our next three witnesses, we are going to see very short videotapes from their deposition.

The first of these witnesses is Dae, D-a-e, Y. Kim. This will be very quick. He is an LG engineer. The tape is about two minutes. And this concerns the '601 or plaques patent. Let's play that one first.

(Deposition played as follows:

"Mr. Kim, I'm going to hand you what's been designated, marked as Kim Exhibit 4. Do you recognize Kim Exhibit 4?

"Answer: Yeah. I think I have -- yeah. I think I've seen this.

"Question: What is it?

"Answer: We call this bead.

"Question: You call those beads?

"Answer: Yes.

"Question: And are those formed in the liner of the refrigerator?

"Answer: Are you talking about the door liner?

"Question: Excuse me. No. The cabinet liner.

"Answer: Yes."

MR. PARTRIDGE: And the next witness is someone we have heard a little bit about previously. He is a research engineer with LG. His name is Chang H. Seo, S-e-o. And he is one of the inventors on the '121 patent, which is the water dispenser patent.

This will last about seven minutes.

Then we will stop and there is a two-minute counter-designation by LG.

(Deposition played as follows:

"Question: Sir, who is your current employer?

"Answer: LG Electronics.

"Question: And how long have you worked for LG Electronics?

"Answer: It has been about six and a half years.

"Question: Did you start with LG in 2002, 2003?

"Answer: Yes, it was 2003.

"Question: Do you recall what month in 2003 you

started with LG?

"Answer: Yes. It was in January.

"Question: Sir, you have been handed Exhibit 9, which is U.S. Patent 7,316,121, and Exhibit 10, which is U.S. Patent 7,383,689.

"Sir, from looking at the front page of Exhibit 9, can you tell whether or not you were listed as an inventor on that patent?

"Answer: Yes. My name does appear in the inventor section.

"Question: You've been handed Exhibit 15, LGDEL206379 through 81 and the English translation LGDEL385013 through 6. Have you seen this document before?

"Answer: Yes, I do remember this document.

[redacted]

in Exhibit 15, were you involved in any further development of that idea?

"Answer: I do not recall.

"Question: Do you recall whether a prototype was ever made of the dispenser idea shown in Exhibit 15?

"Answer: I do not recall that, either."

MR. PARTRIDGE: There is a two-minute section of this deposition which LG requested to be played. This is the counter-designation of Mr. Seo by LG.

"Question: Do you know whether the idea set forth in Exhibit 15 was ever turned into a final product to be used in an LG refrigerator?

"Answer: Yes, I know.

"Question: Was the idea set forth in Exhibit 15 ever used in a final LG product?

"Answer: Yes, I do believe that a portion, slash, the portions of the idea set forth here have been employed."

MR. PARTRIDGE: The third and last of this series of videotapes is Mr. Wook Y. Lee, who is also one of the listed inventors on the '121 patent and is a chief research engineer, or at least at the time of the videotape with LG. It's three minutes.

(Deposition played as follows:)

"Question: Okay. Based on the looking that

you've done recently, what is your best estimate of the date when you had formed in your mind the idea, the concept, of the '121 and the '689 patents? And by you, I mean you and your colleagues working together on this project.

"Answer: Actually, looking at this document of -- made in May of 2003, for us to come up with such a summarization document by this time, I believe that before that, we had to do quite a bit of work leading up to that. For instance, we had to probably get the opinion from the patent team, and we needed to, I'm sure, go through the ideation, and we needed to probably check the redundancy issues and whether or not this idea is realistic enough. So we have to go through such processes in order to come to this type of a summarization record.

"So if we had come up with such a summarization report by May of 2003, I would assume that it would have -- we would have gone back quite a bit of time to date back to the original work at the beginning.

"So looking at the company process in general and how we would work on this type of a matter, I would say at the latest, we probably would have begun this process by March of 2008. So we should have had the ideas before we could come up with this report in May. So I'm saying that at least within the team by May of -- March of 2003, we would have started some work on this."

MR. PARTRIDGE: Your Honor, now we can go back to live witnesses. Ms. Woodall will call our next witness.

MS. WOODALL: For our next witness, Whirlpool calls James Nawrocki..

... James J. Nawrocki, having been duly sworn as a witness, was examined and testified as follows ...

THE COURT: You may inquire, Ms. Woodall.

MS. WOODALL: Thank you.

DIRECT EXAMINATION

BY MS. WOODALL:

Q. **Good morning, Mr. Nawrocki.**

A. **Good morning.**

Q. **Could you please introduce yourself to the jury and tell them what you do?**

A. **My name is James Nawrocki. I go by Jim. I am a financial consultant. I have been asked to testify regarding damages in this case.**

I am president of a company called IPFC, which stands for Intellectual Property and Financial Consulting.

Q. **Could you please describe your educational background and training?**

A. **Yes. I attended St. Mary's University of Texas; graduated in 1979 with a Bachelor's of business administration with a major in accounting.**

Q. **Are you licensed in accounting?**

A. **Yes. I am licensed in several states, and also a member of different state CPA organizations.**

Q. **Are you a member of any professional organizations?**

A. **Yes. I am a member of the American Institute of CPAs, as I have mentioned, several CPA societies. I am also a member of an organization called Licensing Executive Society, which is LES, goes by the initials LES. That is an organization of several thousand executives throughout the world that deal with licensing of technology. So we have workshops, seminars, throughout the year, offering training and education, as well as conferences involving licensing and technology.**

Q. **What involvement have you had with LES?**

A. **I have been on several committees involving coordinating training at meetings, program chairs, in which people attend workshops, and I put together a curriculum for some of those workshops and have been involved in other committees as well.**

Q. **Can you tell us what kinds of work you have done in the area of patent valuation?**

A. **Yes. A majority of my career has involved financial consulting specifically relating to intellectual property matters. Intellectual property are patents, trademarks, copyrights, things such as that. And I have been involved in the valuation of that, either involved in licensing or,**

in a case such as this, in terms of what the damage analysis would be.

Q. **How long have you done that?**

A. **Probably since the mid-'80, early '80s. I guess more than 25 years.**

Q. **Have you lectured on the subject of patent valuation?**

A. **Yes, I have. I have been a guess lecturer at different universities and different forums, including the University of Texas, the University of Chicago Kent, other organizations as well, involving licensing, what license rates would be, what the value of technology is to companies or different industries.**

Q. **And what types of cases have you worked on?**

A. **As you imagine, a lot of the cases I have worked on are high-tech, technology related. Those include everything involving drug cases, as well as high-tech cases for companies involving Microsoft, for example, Internet Explorer. I have been involved in a case involving X Box, the video game. I worked on a matter involving Yahoo and Google. There are other companies or industries that have technologies as well, such as the chemical industry. I have worked with DuPont, several other chemical companies. And other industries as well, like consumer products, as an example.**

Q. **Have you valued patent assets outside the context of**

litigation?

A. Yes, I have. I have sometimes been involved in analyzing technology for matters such as this where companies are in a dispute. Sometimes that evolves into a licensing matter. Sometimes it involves a sale of an asset or an acquisition of an asset. Sometimes it's not a dispute at all. It might just be a tax valuation.

One case I had, it involved Nestle. Nestle was making an acquisition of different brands. They were acquiring the Carnation brand. So I was involved in the patents, the trademarks, the trade secrets, what the value of those were.

MS. WOODALL: Your Honor, Whirlpool would offer Mr. Nawrocki as an expert in intellectual property valuation, licensing, and damages.

MR. COYNE: No objection.

THE COURT: Mr. Nawrocki is accepted by the Court as an expert in those areas.

BY MS. WOODALL:

Q. Mr. Nawrocki, what have you been asked to do in this case?

A. As I mentioned, I have been asked to analyze the damages in this case, both Whirlpool's claim for damages based upon LG's alleged infringement, and LG's damages based on the alleged infringement by Whirlpool.

Q. **Have you formed an opinion regarding the appropriate amount of damages for Whirlpool's '130 patent and '601 patent?**

A. **Yes, I have.**

Q. **And are you familiar with the patents at issue in this case?**

A. **Yes, I am. I have seen the patents and had discussions with the difference technical experts and company personnel.**

Q. **Have you prepared a set of demonstrative exhibits to aid in your explanation of your opinions today?**

A. **Yes, I have.**

Q. **Did you perform a damages analysis for the '130 and then '601 patents?**

A. **Yes, I did.**

Q. **What was your first consideration in that analysis?**

A. **The first I think I looked at was basically the guidance that is provided for patents and for patent damages. What we have here is a section of the U.S. Code, it provides that what a patent does is allows the right to exclude others from making, using, offering for sale, or selling the invention.**

So that is basically what a patent provides, in short.

Q. **What else did you look at?**

A. **Another section of the Code provides some broad guidance on damages, how you calculate damages. It says, upon finding for the claimant, that would be the patent owner, the Court shall award the claimant damages adequate to compensate for the infringement, but in no event less than a reasonable royalty.**

So the reasonable royalty would be the floor level of damages. Damages should be adequate to compensate, but should be in no event less than a reasonable royalty -- so the royalty would be the floor -- for the use made of the invention by the infringer.

That is taking a look at what use has been made, how many sales there have been. In other cases you might look at how many pounds of production, but in this instance we looked at the number of sales units as an example.

Q. **Could you describe a little bit more what a reasonable royalty is?**

A. **A reasonable royalty is like a rent payment, like renting a house. You pay somebody. Instead of owning a house, they own a piece of property, intellectual property, and that is a patent.**

When you want to use someone's patent, you ideally enter into a license agreement and then pay them a rent or a royalty for that patent.

All patents are not the same, just like all

houses are not the same, so the royalties can vary based on what type of property you are licensing and what your use has been in that property. The royalties vary commensurate with the use and what those specific patents are.

Q. Have you made any assumptions regarding the patents at issue, the '130 and the '601, in the context of your analysis?

A. Yes. I specifically looked at the information relating to those, both in terms of the use made, as well as what royalty would be applicable.

Q. And did you make some assumptions in your analysis with regard to validity and infringement?

A. Yes. In order to calculate damage, you have to assume that there is a valid infringed patent. And that is the assumption I made in the case as well.

Q. Have you prepared a summary of LG's use of Whirlpool's '130 patent?

A. Yes. This is a chart that summarizes LG's sales of the accused products that are incorporated in the '130 patent.

What you will see here is sales from the years 2006 through 2010. The last line, 2010, is in italics, because that has been estimated through the end of February. So I had actual data through '09. We estimated the two months of '10 just based upon '09 sales.

Q. **What information did you use in compiling this summary?**

A. **What I used is an identification of the accused products, specifically model numbers were identified, and then I used LG's own sales records. They provided us electronic data. We summarized that data by model and by specific year, as we show here.**

[redacted]

Q. **Have you calculated damages for LG's use of the '130 patent since 2006?**

A. **No. In fact, I use a smaller period.**

Q. **Can you explain the period you have used?**

A. **So what I have shown here is this is a bar chart that represents the information from that prior chart. And you will see the sales from 2006 through 2009, with an estimate for 2010.**

The red portion of the chart shows the damages amount. That is for the damages period starting when Whirlpool first put LG on notice.

Q. **Using the damages period, have you also summarized LG's use of the patent?**

A. **Yes, I have.**

[redacted]

[redacted]

Q. **Taking this information into account, have you also created a summary of the reasonable royalty damages you believe are appropriate in this case for the '130 and the '601 patents?**

A. **Yes, I have.**

Q. **And have you also prepared a standalone version of**

this?

A. **Yes, there is a large chart that we have, I believe, as well.**

MS. WOODALL: Your Honor, may we approach and place a demonstrative by the witness?

THE COURT: Sure.

BY MS. WOODALL:

[redacted]





[redacted]

Q. **What did you consider in connection with the licensing factors?**

A. **Several things I have considered. For example, things that I have considered are summarized on this chart. The first thing is there was no established royalty rate for the patents at issue. In other words, these specific patents weren't licensed individually. There was a portfolio license that Whirlpool had that they had licensed their internal companies for as they transferred technology, but it was part of a broad patent portfolio.**

Additionally, I went through the information. There was various license agreements produced by both parties, and LG and Whirlpool both had some minimal licensing activity, involving refrigerator-type technology, different aspects of them. So I looked at that information as well.

I also looked at industry royalties. The LES organization, Licensing Executive Society, that I mentioned, and other organizations, put together information on what licenses are in different industries. I think we have actually a chart I have that we might show, give an example of that. Yes.

So this is an article that was published by LES, or Licensing Executive Society, back in the early 2000s. It

is a summary of different royalties and royalty rates for different industries.

If you look at the bottom portion -- do you have a pointer, by chance? It might be helpful. I keep wanting to point up there. It might be easier if I use a pointer.

MS. WOODALL: May I approach the witness, Your Honor?

THE COURT: Yes.

THE WITNESS: So if you will notice, right at the bottom there, it's part of this article, the people putting together the article summarized the agreements from 1,500 license agreements. And they looked at various industries here. The industry I looked at was the consumer goods industry, where there was 90 license agreements. And there was a median rate for that industry of 5 percent. That is the midpoint. The median is the midpoint. There is a variety of agreements above and below it. 5 percent would represent the midpoint. I considered that as the midpoint as part of my licensing factors as well.

Q. **Did you also consider existing Whirlpool licenses?**

A. **Yes, I did. I considered those as well. I think it was the prior chart we talked about.**

Q. **If we could go back, please.**

A. **So the second point talks about LG and Whirlpool having minimal licensing activity.**

The next point is within Whirlpool's licenses they had [redacted] again upon the different types of technology they were licensing.

Then the last point that I assessed from the licensing standpoint is Whirlpool would consider the profits it would lose if it was licensing a competitor. We talked earlier about the fact, and I think it's been mentioned many times in this case, that LG and Whirlpool are direct competitors. So in licensing a competitor, one consideration would be Whirlpool looking at LG as a competitor. That would impact their negotiation. Therefore, Whirlpool would consider whether this is the type of technology that would impact sales and would they be losing a sale as a result of that. That is a factor of consideration here.

Q. **And what did you consider in connection with the technical factors of *Georgia-Pacific*?**

A. **So this chart summarizes the various technical factors. Or summarizes those factors I considered. The first point is that in-door-ice, the first patent we are talking about, is a revolutionary change in the refrigeration industry.**

I think Mr. Marcy talked about it and Mr. Langbo, various documents that I have seen talk about the

importance of in-door-ice. So that was one of the considerations I made.

Q. **And, Mr. Nawrocki, have you seen evidence that LG also considered IDI to be a revolutionary technology?**

A. **Yes. That type of consideration was contained in several of their documents as well. Not only mentions of it but the importance of IDI.**

Q. **Please go on.**

A. **The next point is that IDI, or in-door-ice, solved the consumer need for additional space. Again, I think Mr. Marcy just talked about that. But that's been talked about, in both Whirlpool documents and LG documents, contemporaneously over the last several years, that this has been installed by both companies.**

It provided additional space for them, you know, by moving the ice to the door.

Q. **If we could stop you at the '130 patent. You have a binder in front of you. Could you turn to tab 4? I believe it's Exhibit DX-189 in your binder.**

A. **Yes, I have that.**

Q. **What is DX-189?**

A. **Most of the LG documents that I have here are in Korean. Let me look at those. There is an English translation. Let me get to the English translation which I have. This is a cover of the document, it's called "In-Door**

Ice-Making System." It is a summary. If you look at the bottom there, it's in 2003. You can see, 2003. I guess you can highlight that.

Back in 2003, before they implemented in-door-ice as they were looking at the indentations, this is a document they were looking at and assessing their options.

Q. **Can you turn to the page marked 243076?**

A. **Yes, I have that.**

Q. **What did you consider in connection with this document?**

A. **This document provided the project background, if you low at the top portion there. And it starts out by saying there is an increase in consumer needs for increased freezer shelf space and its practical efficiency of the side-by-side refrigerator. And it identifies several bullet points.**

For example, the first point is there was dissatisfaction with ice-making that takes up 20 percent of the freezer. That has been talked about in the case.

The second thing is it was practical to secure up some of this freezer space by moving the ice to the door.

Q. **What else did you consider?**

A. **The other thing is, the last point there, the final point, if you would highlight that, that LG wanted to explore the North American market based on the premium**

in-door-ice side-by-side refrigerator. That is kind of a mouthful. But they are talking about looking at North America, assessing that, but in the premium side-by-side marketplace for in-door-ice.

Up above there is a point similar to that as well. The point right above it says, "Good responses by customers to the Whirlpool products." So they identify Whirlpool that had ice-making equipment in its door already.

Q. **If we could go back to the technical factors, could you tell us what you looked at for the '601 patent?**

A. **Yes. The '601 patent involved the plaque liners. That is the next several bullet points here.**

For the plaque liners, these are the indentations in the walls of the product, though that is something a consumer might not know they have in the product. It does allow for reduced warranty costs. My understanding is that Whirlpool was finding if they were having bowing in some of their products or cracking or bowing, that either within warranty or outside of the warranty period they were having to provide new refrigerators to consumers to replace the problems they were having.

So these plaque liners assisted with that problem and that's what the next point is. "Plaque liners improved the rigidity of the refrigerator and prevents some

bowing or cracking of the liner."

That is from a technical standpoint what I understand these had provided the benefits of.

Q. **And on technical factors, what else did you consider?**

A. **The last point was there was no evidence, to my knowledge, of any acceptable noninfringing alternatives that were available to LG during the damages period.**

Q. **Okay. Could you tell us what you considered in connection with the financial and business factors of *Georgia-Pacific*?**

A. **So now we are going to go into the financial and business factors. This is one of the last set of factors, but there is a lot of information here.**

So we talked about some of these points already, but we will now get into some specific schedules.

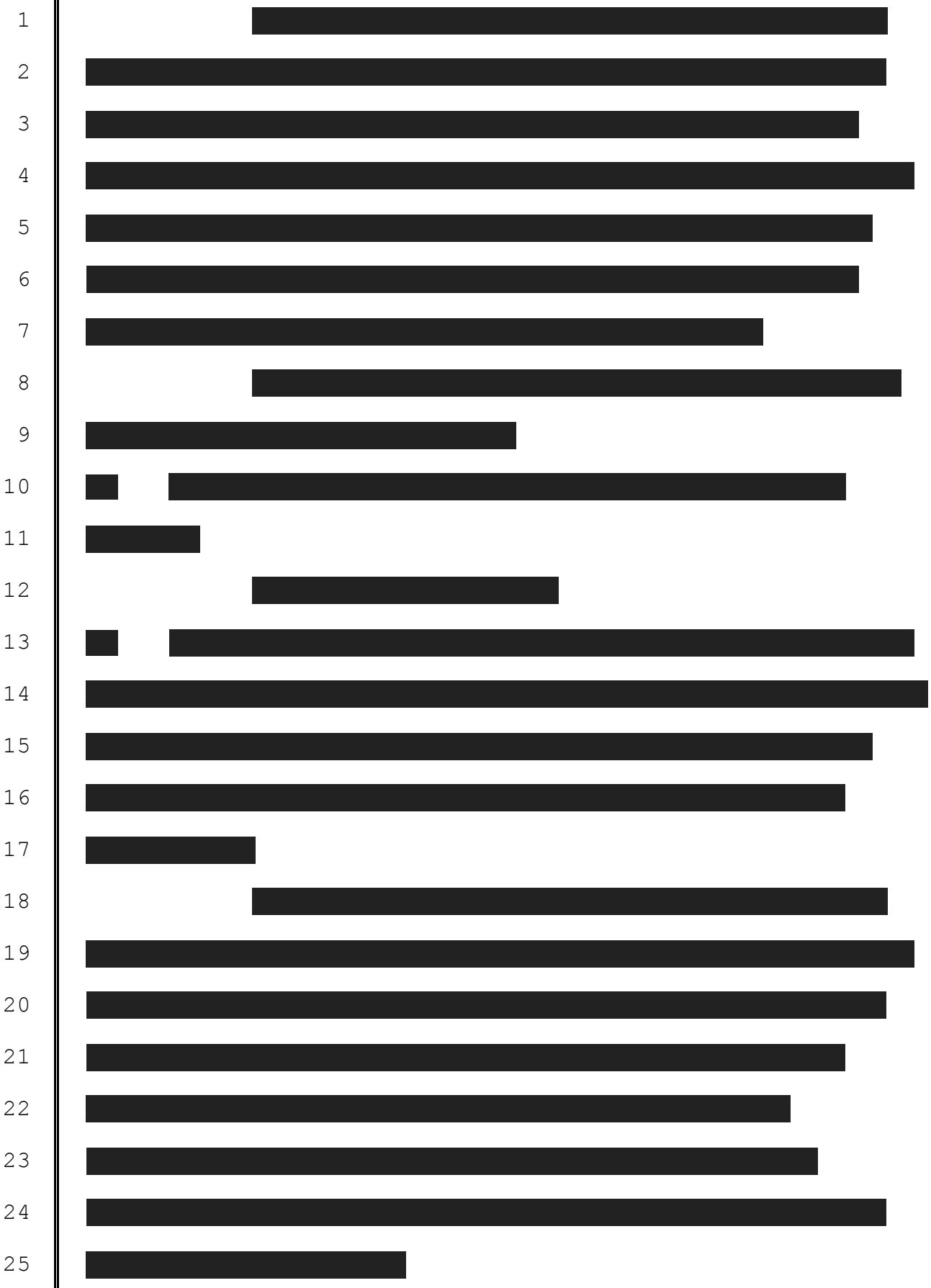
The first point is that Whirlpool and LG are direct competitors, as I mentioned, in the highly competitive home appliances market. There are several other companies that compete in that market as well. But I think there has been a lot of documents produced that show the nature of that competition.

Q. **Could you turn to tab 8, DX-651, in your binder?**

A. **Yes, I have that. Let me get to the American portion, the English portion, I should say. Okay.**

[redacted]





[redacted]

Q. **And did you also consider LG's profitability projections in connection where your analysis?**

A. **Yes. So in addition to looking at their sales and how they were looking at increasing their sales, I also looked at some profitability information as well.**

Q. **Could you turn to tab 5 in your binder? It's DX-214, please.**

A. **Yes, I have that.**

[redacted]

This basically again is another document from LG's records where they are taking a look at assessing the in-door-ice. And if you take a look at the center portion of the document, there is an area called "Differentiation Point."

They mention several things there. They say they want to strengthen their competitiveness by maximizing the internal capacity.

The next two points say they want to improve the profitability of the first-year model refrigerators. So they want to improve their profitability, both through introducing this product, as well as other initiatives they were incurring as well.

Q. **Could you turn to your tab 7, DX-563 in your binder, please?**

A. **This is another project plan document. This was done in '02. So this is another document in which they made some expectations. It's called the "Door Ice Maker." Again, this was in '02, a couple years before they introduced it. And they made some profitability assessments in this document as well.**

Q. **Could you turn to page 242306, please?**

A. **Yes.**

[redacted]

[redacted]

Q. **Could you turn to tab 2 in your binder, which is DX-179? What is this?**

A. **I am sorry. Could you identify the document again?**

Q. **It's tab 2, DX-179.**

A. **Yes. So this document is of a similar nature, making different financial assessments from LG. Again, this at the top is called "Development of In-Door-Ice." And it's got several people's names on it and identifies various financial objectives that they had as they were introducing in-door-ice.**

[redacted]

[redacted]

Q. **Mr. Nawrocki, did you also look at LG's actual profitability for IDI?**

A. **Yes. What we have talked about right now is their expectations as they were going into it. That is an important consideration, when you look at a hypothetical negotiation, their expectations are one consideration. I looked at that. I also looked at their actual profitability as well.**

[redacted]

[redacted]

[redacted]

Q. **Could you tell us what else you considered in connection with the business and financial factors?**

A. **Yes. So the other things that we talked about, we mentioned their desire to enter the North American market. We mentioned LG's ability to use their products.**

The next thing was the last two bullet points, is that when you take a look at the licensing. I mentioned that Whirlpool would want to take a look at whether if we license this company, are they going to impact our sales at all. Is this something we can license and it won't affect

us or is this something that is significant and will affect us. When it relates to in-door-ice and the patents that issued for that, I think it is a significant point that Whirlpool would look at the impact of their lost sales if they would license them. And they obviously were aware of the fact that LG was impacting their sales through the sales of in-door-ice.

[redacted]

Q. **Could you turn to DX-174, please?**

A. **Yes.**

Q. **That's tab 4.**

A. **Okay.**

[redacted]

[redacted]

Q. **I believe you mentioned Whirlpool documents. Could you turn to tab 10 in your binder? It's DX-700, please.**

A. **Okay. I have that.**

Q. **What is DX-700?**

A. **So this is called bottom-mount feature value workshop. Bottom-mount refers to the French-door market which has a bottom-mount to it. This was done in 2007. So this was**

several years after Whirlpool had already introduced in-door-ice. Now they were looking at French doors. Within this document there is various assessments that are made. And one of the things they looked at, if you go to --

Q. **It is 185116?**

A. **Yes. There is a chart. This again is a Whirlpool chart, taking a look at Whirlpool's share [redacted] One of the things they look at here is Home Depot. We talked about Sears previously. Let's look at what's happening at Home Depot. This is Whirlpool's market share at approximately [redacted] percent in [redacted] And it [redacted] So within the course of, you know, less than a year and a half, their market share had gone down considerably and LG's market share [redacted]**

What do you see happening here? [redacted] That is the impact I was talking about, after LG introduced in-door-ice starting in 2006.

Q. **Did you consider Whirlpool's profitability in connection with your analysis?**

A. **Yes. What that caused me to take a look at was, now, let me take a look at Whirlpool's profitability. If they**

were losing sales, what impact would that have on them? How much money would they have at risk if they had lost business? If they were going to look at it from a licensing standpoint, what sort of contribution margin would they have at risk?

So this summarizes the per-unit amounts that they would have at risk. In other words, what is their incremental profit for Sears, the French-door, and for Home Depot? What you will see is those profit rates -- again, these units are selling for more than [redacted] a couple [redacted] dollars. For Sears, their contribution market ranged from [redacted] per unit. And Home Depot, it ranged from [redacted]

Then side-by-sides, they considered that as well, and they are [redacted] on the side-by-sides. So at Sears, they make [redacted] per unit. And at Home Depot, a similar range, [redacted]

That is the type of information Whirlpool would consider in a license. Is that we potentially would be losing this amount of profit. So they would be much less willing to license someone for an insignificant amount. They would need a pretty substantial amount.

Q. And how has this evidence influenced your opinion as to the royalty rate?

A. This was an important consideration as well, that

amount of loss.

So what is summarized here is various data points that I have considered.

[redacted]



[redacted]

Q. **Could we turn back to your opinion on the '601 patent for a moment?**

A. **Yes.**

[redacted]



[redacted]

Q. **Mr. Nawrocki, have you also prepared an analysis with respect to LG's '121 patent?**

A. **Yes. Additionally, I was asked to analyze LG's claim for damages under their patent.**

Q. **Have you formed an opinion with respect to adequate damages for LG's '121 patent?**

A. **Yes, I have. I have a summary chart that I prepared for that as well, summary charts.**

Q. **What did you look at in forming your opinion for the '121 patent?**

A. **So somewhat similar information. I looked at the models that were specifically accused, so I was looking at Whirlpool's models that were accused. And I prepared this summary, which goes from April 2000 -- April 24th, 2008, through February 28th. So this represents the whole period through February 2010, similar to what I did for the other**

damages calculation that I made.

This chart shows that Whirlpool's total sales for this period were [redacted] total sales were [redacted] The average price is approximately a [redacted] a little bit more than a [redacted]

[redacted]

Q. **In using this information, have you calculated a royalty amount for the '121 patent?**

A. **Yes, I have. I have done a similar analysis as what I did for Whirlpool's patent.**

Q. **And is this a chart summarizing your opinion with respect to that?**

A. **Yes, it is.**

Q. **Could you explain it?**

A. **Yes. So what this chart summarizes is my calculation**

of what LG's reasonable royalty damage would be. And what this shows is that for the '121 patent, the spring-loaded spigot or spring-loaded faucet, that the total royalty base is the [redacted] units -- that's what I talked about in the prior chart -- times a royalty rate here, and I used here $5 -- I will talk about how I came up with that amount -- to arrive at total royalty damages of $262,260.

Q. **In connection with your analysis for the '121 patent, have you made certain assumptions with respect to validity and infringement?**

A. **Yes, I have. This damages calculation, it would only be appropriate if the patents were found valid and infringed. As with Whirlpool, if the patents are not valid and infringed, there would be no damages, the same here.**

Q. **What else did you take into consideration in forming your opinion for the '121 patent?**

A. **The other thing I made considerations for, certainly, the *Georgia-Pacific* factors I talked about previously would apply as well, and based upon looking at those factors and what was in issue, I took a look at the different features that were included within the Niagara dispenser.**

The subject matter within this patent is the spring-loaded extendable spigot that's been talked about. However, that was incorporated into the overall Niagara. When you look at the refrigerator, that whole area is

referred to as Niagara. The spigot represented one feature of that system.

So I considered the other features, such as the height and depth of the cavity, the fast-fill feature, measured fill, which has been identified, spring-loaded spigot, the pull-out tray, as well as various other features. There was electronics. There was that nightlight. There was a lock-out. There was various other features as well. These identify most of the major features that are included within the Niagara system.

Q. **And what evidence did you consider in evaluating these various features?**

A. **Various documents again that existed within Whirlpool and LG's own documents.**

In this instance I looked mostly at Whirlpool's documents to take a look at studies they did and how they assessed the different features. And so what you will see from that information is these types of things are talked about. It seems to be very much a consumer -- I don't want to be consumer finicky, but the importance of these features varies based upon the consumers. Some consumers might not like certain features. Some might not like other features. One of the things I found, I thought fairly evident, is the fast-fill, in other words, the ability to provide faster water was an important capability, as well as the size of

the cavity that allowed larger devices to fit within the dispensing unit.

Q. Could you turn to tab 10 in your binder? It's DX-700.

A. Yes, I have that.

Q. This is a document we looked at earlier.

A. Let me see. This is the same document. This is the 2007 assessment of French-door-mount, yes, that's correct.

Q. Could you turn to page 185144, please?

A. Yes, I have that.

Q. Is this a document we have looked at a little bit before in connection with this case?

A. Yes. I think one of the other witnesses, I think Mr. Langbo talked about this as well.

Q. Could you tell me what you considered in connection with this document?

A. So what this document shows is various ice and water features and different values and costs. On the left portion, if you blow up that, maybe the whole chart would be good -- yes, that is fine. What this shows, and it is hard to read the title, it says "Value Versus Cost For Specific Features." And it puts various average values for different capabilities.

On top is the in-door-ice. That's listed as the highest value. Then you will see several other things. We will identify a few of those. You see rotating faucet is

listed there. There is a value of [redacted] I think there is a slide-out tray which has been talked about here, that's [redacted]

You will see other features that are part of Niagara as well, the measure fill, the rotating faucet. That is part of Niagara, as I understand it. There is a water filter indicator identified, tall dispenser height at [redacted] Fill speed at [redacted] So various features with different rankings up and down. The highest ranking being in-door-ice and then rotating faucet and slide-out tray much lower in the list.

Q. **How did that inform your analysis?**

A. **This is confirmation, this provided confirmation of the fact that, though some people, you know, have some value for the rotating faucet and the slide-out tray, it was an indication of, it wasn't as significant as Dr. Rao had identified, where he said 75 percent of the value of Niagara was related to the spring-loaded faucet.**

I thought that was much too high of a valuation. I thought it was much less value that should be attributable to the spring-loaded rotating faucet.

Q. **Do you have --**

A. **I am sorry. This confirmed that.**

Q. **Do you have an understanding as to whether or not LG uses an extendable water spigot in its own LG-branded products?**

A. **LG, no. Surprisingly, or maybe not so surprisingly, LG in their own branded product, this is LG, they don't use the spring-loaded product, as I understand it, in their own branded products. So if it was that type of significant feature, one would expect -- it's surprising that they don't use it if they put that much value on it.**

Q. **Did you consider anything else in connection with this document?**

A. **Yes. Actually, if you look at the right side, there are several comments as well that are consistent with some of the comments that I made. This talks about some trade partner comments. They talk about aesthetics are important. But they also mention fast-fill is a highly important feature and supports Whirlpool's success. Fast-fill dispenser is critical for water. Whirlpool is on par until you get into the fast-fill mechanisms.**

Again, fast-fill is the speed of the water. You know, so you can use the -- as I understand it, you can use -- you can fill the glass with or without using that extended arm. So the water comes faster just by having the fast-fill capability.

I thought those were important considerations as well.

Q. **And were there other comments on DX-700 that you considered?**

A. **Yes. They talk about various other aspects. They talk about LG's capabilities here. And they talk about the aesthetics that I mentioned up above as well. If you look under the aesthetics, I am jumping around a little, I apologize, the aesthetics, they talk about those being important. I think that's been talked about.**

They mention, if you go down, the interaction of the dispenser, styling, and lighting are important. It says, "My sense is that the response to measured fill, slide-out tray, and rotating is not overwhelmingly great."

So measured fill, slide-out tray, and rotating faucet, I am not hearing consumers coming in and asking for it on the floor. I think there is mixed responses for this. Some people might like it. Some people might not.

Q. **Mr. Nawrocki, is this information consistent with what you saw at a time closer to Niagara's launch?**

A. **Yes.**

Q. **Could you turn to tab 11 in your binder? It's DX-701. Have you seen this document?**

A. **Yes, I have. This is a document that is in July 2004.**

Q. **And could you turn to page 565504, please?**

A. **Yes, I have that document.**

Q. **What did you consider in connection with this document?**

A. **So this is one of the documents that talks about**

fast-fill. Another document talking about the importance. It says, "Time savings is the most important benefit of fast-fill." It solves a problem they have with their current dispenser.

The next point, "Respondents like this feature. It allows them to do everyday tasks faster, like filling water glasses."

So again, talking about the importance of fast-fill. But again, there are various features within Niagara. Fast-fill, I think, shows it is a very, very important one.

Q. **Could you turn to tab 9? It's DX-699 in your binder, please. Have you looked at this document?**

A. **Yes, I have.**

Q. **Is this before or after Niagara launched?**

A. **This is afterwards. It was a fast-fill followup. So it was November 2005.**

Q. **Could you turn to page 565540, please? Did you consider this?**

A. **Yes. So this document relates to the slide-out tray. That is the tray that comes out the front bottom of the Niagara unit. It says, "This feature is utilized the least. Some consumers were unaware of the feature. Others questioned the functionality of the feature."**

Again, this talked about, as far as the trade

was concerned, that didn't seem to have a large impact. Again, some customers might like it, some wouldn't.

But this talks about, you know, some rather negative comments about the slide-out tray.

Q. Mr. Nawrocki, did you consider the profitability of the accused features in connection with your analysis for the '121 patent?

A. Yes. I took a look at a couple things, sales value and profitability information as well.

Q. And have you prepared a summary of that analysis?

A. Yes, I have. I have got a summary chart on that as well.

Q. And is this that chart?

A. Yes.

Q. Could you explain it, please?

A. Yes. So this talks about apportioning profit attributable to the '121. In this instance, what we are taking a look at is what is the sales value attributable. The first patent we looked at was IDI. We looked at a whole variety of things, profitability, sales, sales price, plaques, we looked at costs. This one we are looking at sales value. It does have something that is facing the consumer, so I am looking at what sort of value consumers might place on this feature.

In order to start, I took a look at what

consumers were willing to pay for the overall Niagara. There were some documents that talked about a range of [redacted] You will see here at the bottom. So I used the midpoint of that range, [redacted] saying that is an overall value that has been assigned to the overall Niagara. Some people might not assign that much. I think some documents I saw from LG said as low as [redacted] But I said, well, let's go with [redacted] It's conservative in terms of dollars to use a higher number. So I said, let's use the midpoint, [redacted]

I then took a look -- that is what consumers would pay. Then I had to arrive at what the revenue attributable to Niagara would be for Whirlpool or LG.

And then highlighted in blue is how much I attributed to the value. So what's the value attributable to the '121 patent? In other words, the spring-loaded spigot, as well as the tray. And I thought that [redacted] percent would be fair. I think that is reasonable, when you look at all the other features that are considered, not the 75 percent that Dr. Rao had assigned for just the spigot feature.

This is a big difference between us.

What I arrived at was, okay, what is the revenue attributable to that patent? That's the [redacted] applying these percentages out. Took Whirlpool's profit percentage, which ranged generally from [redacted] percent,

and said, well, here's the profits, approximately, it is an estimate, attributable to the '121 and the '980, assuming validity and infringement, and then I assumed a split of that, a 50/50 split, saying take half of that, that would be 1.80 to 4.90, would be the range of royalties that I would consider.

That is what this analysis is. Somewhat complicated, but generally, it's taking a look at the value of Niagara, trying to figure out what the profits associated with that are, and trying to apportion it to the spigot as opposed to the whole Niagara feature.

Q. **How did this influence your opinion with respect to the damages?**

A. **Well, the royalty rate that I then used was $5, I talked about. So I looked at this range and I said, well, it is a consumer-facing feature, some people do talk about it. So I thought $5 would be appropriate. I think that is a conservative estimate. You could come up with the middle of this range, come up with an amount in the $3 to 3.50 range. I felt to be conservative, $5 I think would be something, recognizing they are competitors and potentially negotiate for a higher range. So I included the rate of $5, which was above the range that I came up with here.**

[redacted]

[redacted]

MS. WOODALL: No further questions.

THE COURT: We will have cross-examination after our morning break.

(Jury leaves courtroom at 11:05 a.m.)

(Recess taken.)

THE COURT: Ms. Walker.

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

THE COURT: All right, ladies and gentlemen. Take your seats.

Mr. Coyne, cross-examine.

MR. COYNE: Thank you, Your Honor.

CROSS-EXAMINATION

BY MR. COYNE:

Q. Can you put that chart on the easel for my first set of questions?

Mr. Nawrocki, before I start into your qualifications, I wanted to look at the chart you had just put up, because I thought you just said that volumes was the most important factor. Right?

A. I said there was two factors. Volumes were the most significant difference, then the royalty rates based upon the different types of patents. So two factors.

[redacted]

Q. And the rate your using for the '121 patent is only $5 a unit. Right?

A. For the '121?

Q. Yes.

A. **That's for the spring-loaded spigot, $5, right.**

[redacted]

Q. **Thank you.**

Mr. Herrmann, you can take that down. Thank you.

Mr. Nawrocki, you have been engaged in over a hundred intellectual property matters as an expert witness. Isn't that right?

A. **Yeah. I would say more than a hundred. Since the early '80s, probably about, you know, five to ten cases a year, or engagements a year, depending upon the schedule and things such as that.**

Q. **Five to ten of actual testimony in court?**

A. **No, no. I would say five to ten different client matters. Sometimes it's more, sometimes it's less. But during the course of the year I would say five to ten different client engagements I have over the course of the**

last 20 years.
Q. You have been working during that time as an expert witness. Correct?
A. Yes. Well, I'd say as a financial consultant. If the case goes to trial, I would need to testify in trial. I have testified in trial certainly before.
Q. Would it be fair to say, sir, that you are a professional witness?
A. No. I would say I am a CPA and a financial consultant. I do analyze damages. And I am asked to testify, if, in fact, the parties don't work out their dispute. If they don't work out their dispute, then I am asked to testify in court based upon my analysis.
Q. None of those prior engagements have involved residential refrigerators of the type that are at issue in this case. Is that correct?
A. No, not that I recall. There might be some aspect of it, sometimes I am involved in cases that involve chips or motors, I think. But they may or may not be used in the refrigerator business. Not the refrigerator business in its entirety.
Q. You have a number of publications and presentations that you have made over the years. Correct?
A. Yes.
Q. And none of those involve residential refrigerators.

Correct?

A. **I have not done a presentation on the refrigerator business, that's correct.**

Q. **Sir, in terms of the material that you analyzed in reaching your opinions, you reviewed the information that Whirlpool's lawyers had sent you. Correct?**

A. **I would say we had access to various electronic data that was produced in the case. We obtained that through counsel, but we also did our own independent research on the Internet. So looking at models on the Internet, I actually went to stores to take a look at the products. So I obtained some information from the attorneys and some information we obtained ourselves.**

Q. **Did the attorneys provide you all of the information that was produced in the case or only a subset of it?**

A. **I wouldn't call it they produced a subset. It was extremely voluminous. Again, a lot of it was electronic. Significant volumes of electronic data in terms of sales, profitability. But I don't think they produced the entire set of documents in terms of the technical and the patent stuff. A good portion of the financial information.**

Q. **Sir, you don't read or speak Korean. Correct?**

A. **I don't, but I still have a bunch of Korean documents up here. But they were translated. I don't speak Korean, that's correct.**

Q. **The profit value that you were using in some of your calculations was an incremental profit. Correct?**

A. **There was a couple different profits. Generally, what I looked at was what was called contribution, marginal or incremental.**

That was pretty commonly referred to in some of the documents. There are some documents that talk about gross profits, some that talked about ordinary profit. We saw one chart that talked about ordinary. Candidly, I wasn't exactly sure what they meant by "ordinary profits." But there is different levels of profits certainly to look at. And I looked at what was contained in the documents, as well as the electronic data.

Q. **Sir, other measures of profits would vary. Correct? For example, operating profit for a corporation?**

A. **Operating profit would be different than gross profit and that would be different from contribution margin, that is correct.**

Q. **And the number of units that are accused of infringement in this case, LG's units, are a relatively small proportion of the total number of refrigerator units that Whirlpool sells each year. Correct?**

A. **Let me make sure I understand your question. You are talking about the number of LG's units?**

Q. **Yes, sir.**

A. **I don't know what they are relative. There is over a billion dollars of sales of one of the products at issue and half a billion. I would say those are rather significant. Proportionately to Whirlpool, I didn't make that comparison, but I saw that as a fairly large volume of sales.**

[redacted]

Q. **What is the total number of units Whirlpool sells a year?**

A. **I don't know what the total units are.**

Q. **A lot more than that, though. Right?**

A. **That Whirlpool sells or that LG sells?**

Q. **Whirlpool.**

A. **I don't know the total number of units they sell.**

Q. **Did you look at the 10-Ks of the companies with respect to the profit figures reported there?**

A. **Yes. As part of the analysis, we looked at various public filings they had as well. So to the extent it was available, we looked at that information.**

Q. **Mr. Brooks, can you bring up PDX-123?**

Sir, I would like to show you two charts. The first one is from Maytag. I will represent to you, this is

information that was reported out in the 10-K for Maytag for the years that are indicated. We have included the table, included the values from the various 10-Ks.

Were you aware that from approximately 2000 until 2005, prior to the time that it was acquired by Whirlpool, Maytag's profitability fell from about 30 to about 10 percent?

A. **I would have to take a look at the information. I can't verify the information. But I know their profitability various, certainly, cyclical. I think in recent years their profitability changes as well.**

I can't verify this. But these wouldn't be surprising numbers. But I can't verify that.

I see you have taken it from the 10-K, but I don't have it. If you have the 10-Ks, I will be happy to take a look at them.

Q. **I am happy to have you accept as a hypothetical that the values are correct.**

A. **Okay.**

Q. **This didn't have anything to do with the infringement that is accused in this case. Right?**

A. **I don't know exactly what you are showing here. I assume you're showing total Maytag?**

Q. **Total operating profits. Actually, for Maytag, Maytag reports it as gross profit.**

A. **Washers, dryers, refrigerators?**

Q. **Yes, sir.**

A. **I would say that is broad from a company standpoint. What I looked at was specifically product line information for the product at issue. That may be included in here, but candidly, this is for periods prior to the damages period. So I couldn't verify this.**

Q. **Let's go to the next one, PDX-124. Sir, the same type of analysis. This is the operating profit that is recorded in Whirlpool's 10-Ks for the years 2000 through 2008. I have the same question for you. Assuming these values -- I have accurately reported these values from the 10-K's, this trend that you see falling from only about 8 percent to about 3 percent, it's not caused by the alleged infringement in this case. Right?**

A. **I didn't say that it was. And I would say again, for Whirlpool it would be the same information. This would include a whole variety of products. So I wouldn't suggest that this has impacted their overall profitability except for the fact that if they have lost sales for refrigerators, they potentially make higher profitability. Because this is company-wide. I wouldn't say the losses here would have a significant change on the rates, however.**

Q. **Sir, I would like to change topics and go back to what I asked you about originally.**

A. **The chart?**

Q. **You don't need the chart. I will just ask you the question.**

A. **Sure.**

Q. **We were talking about the difference, the impact of the royalty rate per unit and what impact it has on these various calculations. Would you agree with me that the claimed features are a significant basis for consumer demand with respect to the '121 patent?**

A. **Again, you are talking about the '121 patent?**

Q. **Yes, sir.**

A. **So the rotating spigot -- I thought you were talking about the chart. The chart was on Whirlpool's damages. You are talking about LG's?**

Q. **Yes, sir.**

A. **Let me refer to them.**

Okay. What was your question?

Q. **Are the claimed features of the '121 patent a significant basis for consumer demand?**

A. **As I mentioned, I think for certain customers, they may have that. I haven't seen significant evidence of that. I have seen mixed evidence. Some people, apparently, like a rotating faucet, some don't. There are different types of faucets, be in manual faucets, which as I understand is not accused, versus spring-loaded.**

I haven't seen any demand issues that I have seen for a spring-loaded rotating faucet to be specific to what I understand is at issue here.

Though there are some documents that talk about people liking the faucet, some don't. Some might like the tray, some don't. I wouldn't say it was pervasive.

Q. **Let's go back to the document you had up, DX-700, please.**

A. **Sure. Is that in the binder that you provided?**

Q. **No, sir. It's in the direct binder.**

A. **Okay. Let me pull that up.**

Q. **Can we go back to the page 144 that Ms. Woodall had up on the value versus cost?**

Sir, on the first line --

A. **Just a second. Let me get to the document. This is on the French door document?**

Q. **It's entitled "Ice and Water Feature Values and Costs."**

A. **But the document is the bottom-mount feature document, Exhibit 700?**

Q. **It's at page 41 of DX-700.**

A. **I guess I can see it here.**

Q. **On the chart you had indicated to Ms. Woodall the in-door-ice line 66 -- Mr. Brooks, can you back it out a little bit so we can pick up the footnotes, too, please?**

The comparison that you were looking at here for in-door-ice is not based on an alleged infringing versus uninfringing ice and water dispenser. Is it?

A. **Did you say uninfringing?**

Q. **Yes, noninfringing.**

A. **Yes, this is -- this says in-door-ice. It is not making any comments about infringement or noninfringement. This is a document within Whirlpool taking a look at various features. And in-door-ice I understand is one of the things that is accused.**

Q. **What it is compared against is having no ice and water dispenser at all?**

A. **Right. I see that.**

Q. **In fact, a lot of units have an ice and water dispenser that don't have in-door-ice. Correct?**

A. **Yes. You can't have it in the door or the old-fashioned not within the door.**

Q. **So this valuation here is not comparing an in-door-ice in a system that has an ice and water system versus another refrigerator that has no in-door-ice but still has the ice and water system, is it?**

A. **I don't know if they are making that comparison of no ice whatsoever. Like any automated, I don't know exactly what that refers to. I see it says no ice. I don't know if that is referring to a model with no ice capability**

whatsoever or not.

Q. **But to be a fair comparison, it would still have to have the ice and water dispenser, wouldn't it?**

A. **That would be another comparison, comparing it to ice and water. I am not saying this does or doesn't. I don't know from that footnote.**

Q. **Could we go to DTX-121? Sir, this is a Boston Consulting outside report, right, that we just looked at, DX-700?**

A. **Are you talking about 121?**

Q. **I did go there. I want to figure out this Boston Consulting Group, that is not an internal Whirlpool memorandum, DX-700, is it?**

A. **That is a Whirlpool-produced document, as I understand it. It was done for them by Boston Consulting Group.**

Q. **By an outside vendor?**

A. **That is my understanding.**

Q. **Let's look at what Whirlpool itself puts on these things as a valuation, if we can. Can we go back to DX-121.**

A. **Just so I am with you, that is in the binder you produced. Right?**

Q. **Yes, sir. That should be DX-121.**

A. **I have that.**

Q. **Mr. Brooks, can we go to the page, the tag line at the bottom "consumers get it"?**

I am sorry, this should be PTX -- I am sorry, I said DX.

MR. COYNE: I misspoke, Your Honor, I apologize.

BY MR. COYNE:

Q. **For the record, it's PTX-121.**

A. **Sir, I am not following. I have PDX in here.**

Q. **PTX.**

A. **That's what I was on.**

Q. **It's the fifth tab of your binder.**

A. **I have PTX-121, yes.**

What page is this?

Q. **It's the page that ends with 678. Do you see that?**

A. **Yes, it's titled "Niagara Redesign," yes.**

Q. **Did you review this page in formulating your opinions in this case?**

A. **I can't recall. I have seen various information like this from the documents that talked about Niagara and the different features.**

Q. **This, sir, is an analysis that Whirlpool is comparing the accused Niagara features against the in-door-ice features of the '130 patent. Correct?**

A. **Say that again, I am sorry.**

Q. **This is a comparison between the Niagara features, some of which are accused of infringing the '121 patent, against the '130 patent features for the in-door-ice.**

Correct?

A. **I am not aware of it being comparisons of patent features. What it talks about are several things. It talks about Niagara. It talks about in-door-ice. So when you talk about the patent features, I am certainly not going to talk about the technology. In-door-ice is one of the things we have been talking about in the context of Whirlpool's patents, and Niagara we have been talking about generally. But there is different capabilities and different technologies, certainly.**

Q. **You understand that certain of the features of Niagara are accused of infringing the '121 patent. Correct?**

A. **Certain of the features. Not all the features. There are several features I identified that I understand are not at issue.**

Q. **In making this internal comparison, Whirlpool itself concluded consumers get it with [redacted] preferred over in-door-ice. Did I read that correctly?**

A. **Yes, you did. That [redacted] is what I referred to earlier. I used [redacted] what that document says.**

Q. **In terms of this document, there is a roughly comparable value being placed on those two suites of features by the consumers whose preference is reflected**

here. Correct?

A. **I wouldn't say comparable value. Keep in mind, we are talking about overall Niagara. And then they are mentioned in-door-ice. What is at issue I think is only one aspect of Niagara.**

Q. **Have you seen any documents, sir, that indicate that the Niagara feature is the most important feature?**

A. **I have seen documents that have, again, depending upon the studies, have assessed Niagara and in-door-ice differently. Some say in-door-ice is a big deal, some say Niagara. I think they both have significance. In-door-ice and Niagara were both important to consumer-facing capabilities.**

Q. **Sir, are you aware that there are Whirlpool internal documents that refer to the Niagara as their favorite feature?**

A. **I wouldn't be surprised. I would have to look at the documents. If you are talking about overall Niagara, yes. And some customers might even prefer one of the features.**

Q. **Would you look at PTX-693, please?**

A. **Okay. It's upside-down. Let me flip it around.**

Okay. This is the Smith-Dahmer study you are referring to?

Q. **Yes, sir. If you look at the bottom of the page that ends in 692, do you see the last bullet point on that chart,**

sir? "If the extendable water tray and extendable water arm are coupled, the majority of people across segments choose it as their favorite feature."

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

Q. **Did you consider that in reaching your opinions in this case?**

A. **Yes, I think some people like the tray and the arm. Some people don't, depending upon the different time periods.**

[redacted]

[redacted]

Q. **Just so we get the timing straight, what time did you consider this hypothetical negotiation to have occurred for the '121 patent?**

A. **Basically, taking a look at the first period of infringement. So the patent, as I understand, was issued in early '08. So I would say you take a look at the period of that time period, late '07-early '08, right before the first accused sale is made.**

Q. **What is the time frame when the hypothetical negotiation, in your view, occurred with respect to the '130 patent?**

A. **The '130 patent would be much earlier. It would be based upon the first infringement by LG.**

Q. **What time frame?**

A. **Let me take a look.**

When they first introduced the product, when LG first introduced the in-door-ice, which was in 2006.

Q. **Sir, you are aware also that Whirlpool didn't give LG notice of the infringement as you talked about with the '121 until 2008. Correct?**

A. **That's correct. My understanding is the hypothetical would take place at the time of first infringement even though I have calculated damages for a smaller basis, based upon being on notice.**

Q. **With respect to the '601 patent, when did the hypothetical negotiation occur, in your view?**

A. **That patent is a much older patent. So I believe that the first period of accused use -- let me just take a look back -- was 2003, I believe.**

Q. **Thank you, sir.**

Let's go to the '130 patent for a few minutes.

A. **I am sorry. Let me make sure. You are talking about the in-door-ice patent, yes.**

Q. **Did you want to correct your prior answer?**

A. **No, I wanted to make sure we were on the right page. You are shifting over to Whirlpool's patents now?**

Q. **Yes, I am.**

A. **Thank you.**

Q. **If the French-door does not infringe because the jury ultimately finds that the features are such that it doesn't meet the claims of the patent, then it would be not appropriate to include the French-door model in the damages calculation. Correct?**

A. **You would only apply damages to those products found to be infringing. So the number of units that I calculated include both side-by-side and French-door. You would apply the royalty rate to those units that are found to be infringing. If side-by-side and French-door are both found to be infringing, then that information was provided. If just one of them is, that information was provided.**

[redacted]

Q. **By 2006 LG had a lot better information about what their profitability improvement actually was than their projections from 2002 or 2003. Correct?**

A. **Yes. As you get further along, there is different profitability expectations. We talked about the other documents, recall the charts that talked about the profitability improvement as well. So they would have various considerations over a period of time as they embarked upon the project.**

[redacted]

Q. **Let me try to clarify my question, then.**

In terms of the actual profitability, you were basing it, at least for the 2008 and 2009 models, on side-by-side comparisons of units that had Space Plus and did not have Space Plus. Correct?

A. **That's correct.**

Q. **You made, I think, four comparisons?**

A. **Actually, we talked about just a comparison of two models, basically, for 2009.**

Q. **Then the two comparisons. So two refrigerators and then two other refrigerators were compared. Right?**

A. **I looked at a variety of refrigerators. I looked at the price difference in LG's models. I also looked at Whirlpool's as well. I believe you are referring to the ones that we showed on direct, which was comparing two models of LG for 2009.**

[redacted]

Q. **For purposes of my question, it is going to be directed at the refrigerator as opposed to the profit center. Will this suffice for that purpose?**

A. **This is one piece of their profitability, yes.**

Q. **And these features have other differences than just the Space Plus. Correct?**

A. **There are some differences in terms of bins and ratings and things such as that.**

Q. **And the tall dispenser is a difference between them. Correct?**

A. **Yes. If you look at the picture there is a tall dispenser, a slightly smaller one on the right. I would have to take a look at the actual data sheet to see if that is identified as such.**

Q. **And you mentioned during your direct, I believe, that this calculation is going to produce different results, depending on the two models you pick, right?**

A. **Yes, they have different sales prices and different costs relating to them. So different models would show different profitability. As I looked at a variety of them, you will see different levels of profitability, higher and lower.**

Q. **How many comparisons did you make in doing this analysis?**

A. **For LG I looked at these models, as well as several other models they had. These two were the most representative in terms of being sold for a period of time, having no in-door-ice and then having in-door-ice.**

There were a variety of other models. Sometimes

they were sold in only limited periods and they were discontinued. So I tried to find some that had relatively significant sales. I think both of these models had tens of thousands of units of sales in each year, millions of dollars. So I looked at these and presented these, but there is a whole variety of models I looked at as well, for LG and Whirlpool.

Q. There is a lot of other models, some of which may actually show a negative difference, correct?

A. It would depend upon the comparison. You have to take a look at the features and see if there is a difference. But I would caution because some of the information relating to that shows unusual things.

One of the models that I think Dr. Rao used as an example showed a negative price as an example. That didn't make any sense. And they showed negative costs. I looked at that and tried to use the models that I thought were most representative.

Q. Actually, sir, what he showed was that the profitability for the unit with the Space Plus was actually lower than the profitability without Space Plus. That's what he showed, isn't it?

A. He showed some of that. I will let Dr. Rao talk for himself. But when you look at the specific information, it is very inconsistent with looking at information on a

specific year period. I looked at it in a period where he was looking at multiple years and costs for a certain year. If you looked at the specific information consistent with this, you would find much different results than he found.

Q. **In fact, what he did is look at a group of units, not just one-to-one comparisons, he took a group of units and compared them and derived what he felt was the incremental profitability. Correct?**

A. **He looked at various units, and I looked at various units as well, for purposes of court. We showed these as examples of what are representatives of the differences in price.**

He looked at a variety, for multiple years, but had some issues in terms of what his profitability information was based upon. He was not consistent with the years and the data that he was showing for sales.

Q. **I am sorry, sir. Maybe it was the way I asked the question. I was simply asking: Did he compare a number of units, as opposed to making a one-by-one comparison as you did? Correct?**

A. **You will have to ask Dr. Rao. He looked at a variety of models, as did I.**

[redacted]

[redacted]

Q. **I am just going to ask you -- let me do this, then, first and then let's talk about the split.**

One of the things that, for example, the article that you showed from the table that you displayed in your slides, was that you would have rules of thumb that you use in licensing. Correct?

A. **No, I didn't say rules of thumb. If you are talking about the chart that had the different lines on it?**

THE COURT: Counsel, is there a reason you are standing?

MS. WOODALL: We have an objection to the hypothetical. Could we approach?

THE COURT: Yes.

(The following took place at sidebar.)

[redacted]

[redacted]

MS. WOODALL: I am not sure which defendant he is referring to.

MR. COYNE: Dr. Rao's prior testimony in the proceeding.

MS. WOODALL: He had not testified on the '130 patent's value. He has not yet come up on rebuttal for that. He was talking to you about the '121.

[redacted]

THE COURT: She is saying he perhaps should not be able to testify about it now because it may never come in evidence.

MS. WOODALL: That is mostly my concern, Your Honor. We need to address that at the time of Dr. Rao's testimony. In his report he has expressed --

THE COURT: Let me interrupt. Not that he shouldn't be able to testify, but based on the hypothetical you posed.

MS. WOODALL: If he wanted to use any other number and say other than what Dr. Rao has calculated, because Dr. Rao has calculated in another specific context.

MR. COYNE: Why don't I not reference Dr. Rao and it be a high hypothetical question, and he can say yes or no, not referring to Dr. Rao.

[redacted]

[redacted]

MS. WOODALL: I think the cat is out of the bag. He said Dr. Rao proposes this number. I am not opposed to a hypothetical to my expert. But I don't think it would be fair to get this far, where there has been a representation to the jury that that is Dr. Rao's number.

[redacted]

[redacted]

[redacted]

THE COURT: I think that would suffice.

(End of sidebar conference.)

BY MR. COYNE:

Q. **Mr. Nawrocki, I am going to ask you a hypothetical. But first I want to talk about the split between -- when you are doing a hypothetical negotiation, frequently you figure out the incremental profit or if it's an incremental cost basis, whatever basis you are using, you would apply a split between the licensor and licensee about how they would divide that incremental profit.**

A. **You could split or apportion the benefits. It would be those profits or whatever the benefits might be. You could split or apportion those, that is one consideration, yes.**

Q. **Among the factors you might consider in making that apportionment or split is the relative size and bargaining strength of the two companies. Correct?**

A. **That's one consideration, yes. The competitive relationship that we talked about earlier, yes.**

Q. **Well, in this particular market, we have seen a lot of evidence in this case about the competitive relationship, and you have been in court for much of that, haven't you?**

A. **Not only in court, but I have seen the documents as well.**

Q. **And we are dealing with companies that are both very large, correct?**

A. **Very large, global companies, more than a billion dollars in sales, certainly.**

Q. **I am going to ask you for this hypothetical to assume that in the hypothetical negotiation that took place over the '130 patent, they are going to agree on a 50-50 split. Okay?**

A. **For the '130 patent?**

Q. **Yes, sir.**

A. **That's one way of looking at it, yes.**

[redacted]

Q. **Yes, sir.**

A. **I will assume that.**

[redacted]

[redacted]

THE COURT: It's just a hypothetical.

THE WITNESS: I understand.

So I would say that that would be one way of looking at the split, is 50-50.

BY MR. COYNE:

[redacted]

[redacted]

Q. **Thank you, sir.**

Sir, I am going to ask one further clarification on this hypothetical. I am going to also ask you to assume that the jury decides in this case that the French-door units do not infringe. Okay?

A. **Okay.**

Q. **Applying those three assumptions -- could we have PDX-10, please, Mr. Brooks? So these are the calculations and the values that you put up on the board earlier. Correct?**

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

[redacted]

Q. **And there would be no incremental units that were being sold that would be infringing for the French-door units under the hypothetical I have given you. Correct?**

A. **I am sorry. You said there would be no incremental units?**

Q. **You would not include in the royalty base any of the French-door units, if we are assuming that the jury finds**

that the French-door units do not infringe?

A. **If the French-doors do not infringe, they shouldn't be included in the calculation.**

[redacted]

[redacted]

Q. **Can we go to the '601 patent, sir?**

A. **Yes.**

Q. **You indicated that the inclusion of this technology decreased consumer warranty claims?**

A. **Yes, it can have an effect--- yes, I did.**

Q. **Did you do an analysis of all of Whirlpool's warranty claims for a period before and after this technology was**

implemented?

A. I didn't analyze their warranty claims as over this period of time. They already used plaque liners. So they didn't have any that related to not using them. They were using the plaque liners throughout this. It would be years before that they hadn't used this, which would have been many years ago. They had been using the plaque liners for several years.

Q. Did you do any analysis of warranty claims with and without the plaques?

A. Not by dollar amount. My understanding is without them, they were concerned about having that as an issue, and that is one of the benefits that they had experienced years before they developed the plaque liners.

Q. My question, sir, is whether you have conducted any analysis of the warranty claims in the period when the unplaqued liners were used compared to when plaque liners were used.

A. No, I didn't.

Q. Instead, you relied on statements by Mr. Whah during conversations you had with him. Correct?

A. That's correct. He informed me that they provided new refrigerators at the time to people who were having problems in that area.

Q. You didn't see any evidence in the materials you

reviewed of drop in warranty claims before and after the '601 patent was implemented, correct?

A. **That's correct.**

Q. **Sir, are you assuming for purposes of your analysis that plaques do not actually prevent bowing?**

A. **I am assuming that they assist or they prevent bowing. I understand that they are used on the side, but I am not a technical expert. I think you have to talk with the technical experts of that. My understanding is they assist in that process of either cracking or bowing.**

Q. **That's specifically my question. Are you assuming for purposes of your analysis that the plaques prevent bowing or rather that they simply help reduce bowing?**

A. **I don't recall making a distinction. I recall that they either assist or prevent bowing.**

Q. **And you mentioned, now, a couple of times that cracking is one of the factors that was considered, as well as warranty claims. Right?**

A. **I remember there were some issues on cracking. If things would bow, I guess potentially they could crack. Again, I would defer to the technical experts' analysis of those claims.**

Q. **Have you reviewed Whirlpool's internal documents about whether the plaques really do eliminate these problems associated with bowing?**

A. **I have seen some documents. It depends on the documents. Some of that was more of a technical nature. I would have to take a look at the document and see which one you are referring to.**

Q. **Can we go to PTX-400, Mr. Brooks?**

THE COURT: Does it really matter?

MR. COYNE: That is fine, Your Honor. I am prepared to move on.

BY MR. COYNE:

[redacted]

Q. **You considered that there was no noninfringing alternative. Correct?**

A. **As I mentioned on that chart, I was not aware of any alternatives that LG had available during the infringement period that were commercialized.**

Q. **Can we bring up PTX-403, please?**

A. **The exhibit number, I am sorry?**

Q. **PTX-403.**

A. **Okay.**

Q. **Sir, this is a catalog from 1988-1989, for a Gold Star refrigerator. Do you see that?**

A. **Yes. I think I have got it here. Yes, I have that.**

Q. **403.**

A. **Okay.**

Q. **This is a catalog from 1988-1989 for a Gold Star refrigerator that was actually sold. Do you understand that?**

A. **I don't think I have seen this before. This is a Gold Star one?**

Q. **Yes, sir.**

A. **I don't recall seeing this before, but okay.**

Q. **So you did not consider this in your analysis. Correct?**

A. **I don't think I have seen this. This is Gold Star, in '88.**

Q. **You recognize that as an LG brand, correct?**

A. **I think Gold Star was part of the LG before it became LG, Gold Star and Lucky. I heard what was talked about before, and that is generally what I understand, is that they were eventually folded into LG.**

Q. **For this hypothetical I am going to ask you to assume that this refrigerator that is shown in this catalog was actually commercialized. Okay?**

A. **Okay.**

Q. **That it was sold in a number of markets, not the U.S. necessarily but a number of markets around the world.**

A. **Okay.**

Q. **And that the unit and the features in it were**

commercially acceptable in those markets. Okay?

A. **Okay.**

Q. **Could we go, Mr. Brooks, to the page that shows the interior of the refrigerator? I think it's GR-602.**

On the right-hand side, sir, in the middle of the page, there is an image of the interior of the refrigerator. Do you see that?

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

Q. **Do you see on the left -- I am sorry, the contrast is not high -- but you see on the left-hand side of that refrigerator wall, the refrigerator has these indentations or plaques formed in it?**

A. **I couldn't say those are plaques or not. I will defer to the technical experts. I see different lines in there. I don't know if they are considered plaques or not.**

Q. **I will ask you to assume for purposes of this hypothetical that they are, in fact, indentations in the liner. Okay?**

A. **They are indentations, okay, I will assume they are indentations.**

Q. **I will ask you to further assume that those are indentations that satisfy all the other limitations of the claims of the '601 patent. Can you make that assumption for me, as well, please?**

A. **Okay.**

[redacted]

Q. **I am sorry, sir. Yes. My mistake. I see that now.**

Sir, the difference in cost, you based your estimate, your analysis on difference in cost, or it would be the cost analysis for the royalty calculation based on the cost of the liner plus the foam. Correct?

A. **Based on the cost of the plastic liner, as well as the foam that is adhered to the plastic liner.**

Q. **You would still have plastic foam adhered to the plastic liner even if the foam was unplaqued. Correct?**

A. **I don't know from a technical manufacturing standpoint whether or not it would be able to be used without the plaques. You might be able to physically put foam there, but whether or not you would be able to use that configuration with plastic, foam, and metal without plaques, I don't know from a manufacturing or technology standpoint.**

Q. **Let's assume that for purposes of this hypothetical as well --**

A. **Just a blank wall?**

Q. **Yes, sir.**

A. **Okay. I am not a technical expert, but I will assume it's a flat wall.**

Q. **Sir, LG would have had to have had dies and tooling to make that liner that is shown in PTX-403. Correct?**

A. **Are you talking about the Gold Star model?**

Q. **Yes, sir.**

A. **Either they had them or their subcontractors would have some type of molds.**

Q. **I am going to ask you to assume that the only difference between a plaqued liner and an unplaqued liner would be the cost of doing the molds to remove the indentations. Will you make that assumption for me?**

A. **It is inconsistent with what I would expect, but I can make that assumption.**

[redacted]

Q. **Yes, sir.**

A. **Okay. That would be one cost. I will make that assumption. I don't know if it is accurate or not. But I will assume that.**

[redacted]



MR. COYNE: No further questions, Your Honor.

THE COURT: Ms. Woodall, redirect?

MS. WOODALL: Yes, Your Honor.

Could I have PTX-403, please?

BY MS. WOODALL:

Q. **Mr. Nawrocki, when is this catalog from?**

A. **Where was it from? From Gold Star.**

Q. **What year?**

A. **It says '88 and '89 on top. It says '88 and '89. I don't know. I don't recall seeing this. That's what it says on top.**

Q. **How does the size of a United States refrigerator compare to that of one sold outside of the United States?**

A. **My understanding is the refrigerators here are larger.**

Q. **Did you hear testimony from certain LG witnesses during the course of this trial, indicating that they had to change the size of their refrigerators for the U.S. market?**

A. **I recall that being discussed.**

Q. **So could you relate for us what would be necessary for the liner that is depicted in PTX-403, what steps would be necessary for that to be a viable noninfringing alternative?**

A. **Well, I believe there was some discussion about molding costs. If you could -- you would have to first come up with a mold design that would be noninfringing. And that would take some time. If it's viewed that these molds**

are -- these indentations, these plaques are appropriate, you would have to redesign it for the molds for the U.S. market. And there would be a whole series of models. If you go to the store, you will see various models, there might be 10, 15 models, but there would be a whole series of models, not only for those, but French-doors, side-by-side, and that changes year by year. So there would be a lot of additional mold costs. There would be time to implement them.

Then there would be the issue to decide what you do with each one of these, in terms of the inventory and things such as that. So there would be time as well as costs associated with it if you tried to implement something there into another product. That would be from a manufacturing standpoint something to consider.

Q. **During that time would LG be able to sell any of the refrigerators with the accused plaque?**

A. **If they sold an accused product, my understanding is they would have to pay something on that. It would be up to the Court whether or not they could sell it or not.**

Q. **But if LG were not selling any refrigerators during the time of design-around and implementation, what would happen?**

A. **If they weren't able to sell the product that was accused of infringement, that would be a significant impact**

for LG, having these products that you couldn't sell and you would have to either disassemble them, put in new walls, or start from scratch. There would be a cost for that.

Q. **Are you aware of the legal proposition that legal damages should be capped at a design-around cost?**

A. **No. It's a consideration of what the design-around costs are, but it's not necessarily a cap. It depends upon overall *Georgia-Pacific* factors and taking a look at all of them in their entirety.**

Q. **Could we turn to DX-70, please? It's page 1885144, please.**

Earlier, LG's counsel asked you about footnote 1 and the value of IDI. Do you recall that?

A. **Yes.**

Q. **Does LG sell any French-door bottom-mount refrigerators with ice and water through the door that do not have IDI?**

A. **Not to my knowledge.**

Q. **So would this comparison, in your mind, still be a valid one?**

A. **Yes. Taking a look at the in-door-ice and the value that is placed on in-door-ice, I still think it's appropriate in terms of the relative value.**

Q. **Can we have PTX-121, please?**

What is the date on this document?

A. **September 2004.**

Q. **Is that before or after Niagara launched?**

A. **That was before.**

Q. **Could we have PTX-693, please?**

What is the date of this document?

A. **2003.**

Q. **Is that also before Niagara launched?**

A. **Yes.**

Q. **What information did Whirlpool have after the launch of Niagara that may or may not be different from these two documents that you have just seen?**

A. **I think what happened, and you see it in the documents, as well as I think Mr. Langbo testified to it, is they put a lot of features in things and they sometimes aren't always met with what they thought they were going to be. They thought this would be great. People would like it. Sometimes there is mixed reaction in the marketplace. I think sometimes there is expectation and then sometimes what actually happens is there is not as much when they introduce the product.**

Q. **And when did LG's '121 patent issue?**

A. **LG's '121, January, I believe January of '08.**

Q. **And at the time of the hypothetical negotiation for the '130 patent -- what is that date?**

A. **For the '130?**

Q. **Yes.**

A. **Now we are coming to in-door-ice. That is 2006.**

Q. **At that time had Niagara already launched?**

A. **Yes.**

Q. **And did Whirlpool already know about the performance of Niagara?**

A. **Yes.**

Q. **Could we have slide 36, please?**

Mr. Nawrocki, have you attributed all of LG's incremental profit to IDI?

A. **No, I have not.**

[redacted]

[redacted]

Q. **Do you know what level of margin Whirlpool uses in making its business decisions?**

A. **They will use either a product margin or an incremental margin as well, which I talked about as well. A**

product margin, how much you make on a refrigerator before all your corporate allocations.

[redacted]

MS. WOODALL: No further questions. Thank you.

THE COURT: Thank you, Mr. Nawrocki.

(Witness excused.)

THE COURT: It's been a long morning, leading into an early afternoon. I think we will take our lunch a little earlier today. Let's come back at 1:30.

(Jury leaves courtroom at 12:25 p.m.

(Luncheon recess taken.)

THE COURT: Okay, Ms. Walker.

MR. COYNE: Your Honor, just before the jury comes in, we have been discussing kind of the schedule for the rest of the day. It appears that Whirlpool is going to be resting soon.

How do you want us to handle the 50(a) motions that we would be proposing?

THE COURT: You can Bench-file it if you would like. If you prepared writings?

MR. COYNE: We could file them at the end of the

day, if that's Your Honor's pleasure.

THE COURT: You can do that. If you have something that you really think in earnest you should prevail upon, Mr. Coyne, I will listen briefly. But it really needs to be good.

MR. COYNE: I do. But they are relatively limited issues and they won't terminate the proceedings. So why don't I just Bench-file --

THE COURT: There's no point in taking my time.

MR. PARTRIDGE: I hadn't planned on Bench-filing. I will give you something at the end of the day that renews our motion and protects our record.

THE COURT: The ones that I denied already?

MR. PARTRIDGE: Only for the purposes of the appellate record, and the way the rules are read, sometimes strangely, you can simply deny them again, Your Honor, when we are done. As to the proofs that we made, we will give you a short Bench memo on this. It is to preserve our appellate record.

THE COURT: Unless there is something new that you want to say, let the record be clear, those will be denied.

MR. PARTRIDGE: Very well, Your Honor. Thank you.

THE COURT: Mr. Partridge, for your edification,

if I thought it was even close...

MR. PARTRIDGE: I understand, Your Honor. It's only an appellate record issue.

THE COURT: I am not sure I read the rules exactly the same that that is required. Even in the Federal Circuit. I don't mean that disparagingly. The regional circuits, quite frankly, interfere a lot more with trial judges' prerogatives than the Federal Circuit. I don't appreciate that about my colleagues in D.C. It is Markman that I don't appreciate. But don't let me get started on that. That is not their fault at this point. Maybe it is.

MR. PARTRIDGE: Like many lawyers, I get nervous about any of these variations.

THE COURT: You don't want to waive something. I understand.

(Jury enters courtroom at 1:35 p.m.)

THE COURT: All right, members of the jury. We will proceed.

MR. PARTRIDGE: Your Honor, a brief statement, if I may.

We have three witnesses left in our case-in-chief. The first will be by video. His name is Sung W. Kim. He is a research engineer with LG. He talks about what in this case is Defendants' Exhibit 769, which is the document that talks about strengths, opportunities,

weaknesses and threats.

(Deposition played as follows)

"Question: Mr. Kim, I'm going to hand you what's been marked as Kim No. 2. If you'd just take a minute to look at the document, my question is, do you recognize the document?

"Answer: Yes, I've seen this.

"Question: What is the document?

"Answer: Well, it's a master plan and, well, if you will understand it to be a master plan, sir.

"Question: What is it a master plan for.

"Answer: It's a master plan for the ice and water -- for ice and water.

"Question: Do you know who prepared the document?

"Answer: Now, that I am not entirely certain about, but I think in terms of the putting together of the document, assembling -- assembly of the document as such, I think that may have been either Mr. Si Yun Kim -- I'm sorry, Si Yun An or Il Shin Kim.

"Question: Did Mr. An or Mr. Kim have a better sense of the technical expertise of the ice and water group than you did in 2003?

"Answer: Yes, indeed. As far as I would be concerned, I think they were a little more enlightened on

the overall thing, state of things within ice and water than I.

"Question: Mr. Kim, could I turn your attention to page -- it's 3 of 9 in the middle.

"Answer: All right.

"Question: Do you recognize what's shown on page 3 of 9?

"Answer: Yes.

"Question: And what is it?

"Answer: It's a SWOT analysis as part of an environmental analysis.

"Question: What is your understanding of what SWOT means?

"Answer: It's basically sort of a pros and cons type analysis.

"Question: Do you see how there are four boxes on the left side of the page and each box has an S, W, O, and T in it?

"Answer: Yes.

"Question: Do you know what the box is with S -- excuse me. Do you know what the S means?

"Answer: Strength.

"Question: Do you know what the W means?

"Answer: Weakness.

"Question: Could you take a look at the words

inside the box labeled with the W?

"Answer: All right.

"Question: Can you tell me what the top bullet point says?

"Answer: Lack of accumulated technical experience.

"Question: And beneath what you've just read, could you tell me what that says?

"Answer: Lack of technical manpower with expertise.

"Question: And does that refresh your memory whether the ice and water group lacked technical manpower with expertise in 2003?

"Answer: Well, in the former case, I don't know that I would know the exact meaning here, but I believe the reason why they wrote this down at the time is because each of our personnel is charged with lots of tasks, so in that regard we were lacking.

"Question: So you didn't have enough technical specialists in the ice and water group?

"Answer: Well, so what this is when they say they lack in terms of the manpower for technical matters, they are talking about not having enough people.

"Question: In the third item in the W box, can you tell me what that says?

"Answer: Acquisition of IP rights, goals wanting.

"Question: And what does the last item say in the W box?

"Answer: Weak as to fundamental source technology.

"Question: Well, the ice and water group currently is 13 people?

"Answer: Yes, that's right.

"Question: How big was the ice and water group in 2003?

"Answer: Seven."

MR. PARTRIDGE: For our last two witnesses, because of the time that is consumed by the translation that you have been observing, we will read these last two depositions to you to shorten the amount of time it takes for you to listen to the testimony.

The first of the two witnesses is Mr. Il Shin Kim, who is a chief research engineer with LG. And we will have two of our lawyers, Mr. Tom Rooney will play the role of the witness and will take the witness stand, and Ms. Liz Durham will ask the questions.

They will also do the second deposition of Dr. Lee. And both of these deposition transcripts deal with the Bics project that you have heard about thus far in the case.

THE COURT: All right.

MR. PARTRIDGE: One thing I might add is just that we will be identifying a number of exhibits through these depositions. They are not particularly exciting. And I apologize for that. It turns out it's something we need to do in order to make our record.

(Deposition read as follows.)

"Question: Are you familiar with a project called BICS, B-I-C-S?

"Answer: Yes, I am.

"Question: And what does BICS project relate to?

"Answer: That relates to installation project for overall ice and water system mounted on the door of a refrigerator.

"MR. MORICO: Can you please mark these as DX-156 and DX-162, in that order, please.

"Question: Okay. What is the Bravo two project?

"Answer: That includes the ice and water system for the door and the three door button."

MR. ROONEY: At this point the check interpreter McDonald replied and he says, "It's bottom." Interpreter Kim replied and said, "oh, bottom freezer."

"Question: Okay. Referring to DX-162, which is

the drawing, does DX-162 refer to the ice bin, which is used in DPX 12? And for the record, I am going to go ahead and mark the ice bin that came out of DPX 12 with DPX 13?

"Answer: Yes, I believe so.

"Question: I've handed you what's been marked as DX-163. Does DX-163 contain sketches of the Bravo ice and water dispensing system?

"Answer: Yes, it does.

"Question: I just want to direct you to -- I want to just highlight it, so it's easy to read, can you read what I just highlighted, there? For the record, I've highlighted some Korean characters in yellow.

"Answer: It is a freezer room."

MR. ROONEY: Check Interpreter McDonald interjects and says, "Oh, no, he didn't say 'freezer.' The answer continues: "Refrigerator room."

"Question: What does the pink say?

"Answer: Freezer room.

"Question: I stand corrected. Mr. Kim, I've handed you what's been marked as DX-164. Do you recognize this document? And, for the record, DX-164 contains Bates documents LGKR 0051697 through 51730?

"Answer: Yes, I do.

"Question: Okay. And I'm just going to identify all these documents, for the record, for a moment.

"Mr. Kim, you've been handed Exhibits DX-16, DX-157, DX-212, DX-196, DX-158, DX-165, DX-155, DX-152, DX-159, DX-166, and DX-167. For the record, DX-16 bears Bates range LGKR 778 through LGKR 786. DX-157 bears Bates Nos. LGKR 757 through LGKR 759. DX-212 bears Bates document Nos. LGKR 20765 through 20769. DX-196 bears document Nos. LGKR 48415 through Bates range LGKR 48417. DX-158" --

THE COURT: Let me see lead counsel.

(The following took place at sidebar.)

THE COURT: You are going to have to figure out another way to adduce, another way to protect your appellate record. We are not doing this. Don't put this jury through this. I don't want to sit here.

MR. PARTRIDGE: I would be amenable to simply agreeing that the set of exhibits in both of these depositions are received in evidence, in the record, without having to read these deposition transcripts in.

THE COURT: Mr. Coyne?

MR. COYNE: I am happy to agree, Your Honor. But I don't have a clear view in my mind exactly what is in this whole list. I would have to check it. The other thing is, the witness is right down the hall. He is here.

MR. PARTRIDGE: It would take longer, as you can appreciate, in Korean --

THE COURT: I am not going to micromanage to

that point. But I am going to insist that something better be done than what was witnessed. I was going to let it go on, but I didn't realize it was this extensive.

MR. PARTRIDGE: I understand, Your Honor. I don't like it either. We did make the offer as to the group of exhibits that are in these deposition transcripts to simply have them admitted in the record. They are discussed by other witnesses.

THE COURT: I will accept that. If it should come to pass, because you have indicated you are not exactly sure what's on the list, if you should have an issue later on, we can revisit it.

MR. COYNE: I expect I will not. I appreciate the latitude. Thank you.

THE COURT: This is nuts.

(End of sidebar conference.)

THE COURT: Ladies and gentlemen, we are going to try to rescue you a little bit from what you have heard.

MR. PARTRIDGE: We are going to refrain from putting you through hearing about a list of exhibits from both Mr. Kim and Dr. Lee. What we will instead do is work out an agreement with each other that these exhibits will all be admitted for your consideration. They are exhibits that will -- in fact, many of them have been referenced thus far in the proceeding. But they need to be officially part

of the record. And this was the procedure by which we were going to do that.

Now we have agreed to do that, so that we will enter into a stipulation so that you will officially have the exhibits to consider and you will hear more about them as the case proceeds.

With that, Your Honor, we have completed our case-in-chief and will rest, subject to the completion of this agreement and subject to the completion of the agreement with respect to the Voglewede exhibits that we talked about I guess it was yesterday, I am losing track of time, both of those agreements are in the works and hopefully will be to the Court and available to the jury very shortly.

With that exception, those exceptions, we rest.

THE COURT: Thank you, Mr. Partridge. You have the floor, Mr. Coyne.

MR. COYNE: Thank you, Your Honor. We are collecting the witness from the lounge right now. I will do a brief transition statement while he is coming.

Ladies and gentlemen, we are about to start our stage of the case responding to the evidence Whirlpool has put in. We will present as our first witness Mr. Il Shin Kim. LG calls Il Shin Kim, Your Honor.

Your Honor, it appears we are without an

interpreter.

THE COURT: He probably wasn't expecting to be here at this particular moment.

MR. PARTRIDGE: He anticipated this would take 30 minutes or so. My guess is he is probably on the floor somewhere.

THE COURT: Maybe out at the front of the building?

MR. SPEARS: Your Honor, he is not outside.

MR. PARTRIDGE: May I confer with Mr. Coyne?

THE COURT: Yes, please.

(Counsel confer.)

MR. PARTRIDGE: We are going to try to work out an alternative, because I am amenable to have a substitute until the official interpreter can get here.

THE COURT: All right.

MR. PARTRIDGE: We had a backup interpreter. And I understand she is with him, wherever he is.

MR. HERRMANN: Your Honor, they have located him. He is on his way from the Sheraton.

THE COURT: Okay. Let's take a short recess while Mr. Kim arrives.

In fact, maybe I will talk with counsel for a few moments.

Ladies and gentlemen, you can return with Ms.

Walker to the jury room.

(Jury leaves courtroom at 1:55 p.m.)

THE COURT: Counsel, you may sit down. Those in the well, you can relax, whatever you choose to do.

So I wanted to report back to you on the deposition designations controversy and how I see it and how I am going to resolve it, counsel. I just had a couple of quick questions.

We are talking about designations and counter-designations with regard to Gregory Hortin, David Schwartz, Daryl Harmon, and Todd Kniffen, K-n-i-f-f-e-n.

Do I understand correctly, gentlemen, that these are all fact witnesses?

MR. PARTRIDGE: That's correct, Your Honor.

THE COURT: This won't be all that articulate or erudite -- one other question. The yellow highlights -- perhaps I should be a little more specific in the record. I have in front of me Mr. Schwartz's pages.

Mr. Partridge, is it the case that the yellow highlights are the portions that are objected to by Whirlpool?

MR. PARTRIDGE: Correct, Your Honor.

THE COURT: Do you understand that to be the case, Mr. Coyne?

MR. COYNE: Your Honor, I do not have a copy of

what he has handed you.

THE COURT: You need a copy. Here is what I will do --

MR. PARTRIDGE: I gave it to him this morning.

THE COURT: I am going to identify the pages and the line numbers for the record, Mr. Coyne. Maybe you can follow along. That way, if you can't, let me know and we will have to make sure you get highlighted copies.

MR. PARTRIDGE: He will come share with me.

THE COURT: Okay. I am now looking at the deposition of David Schwartz, and the particular testimony that is objected to is at two pages, 598 and 599, beginning at line 4 -- it's actually line 5 on 598 through line 2 on 599. Agreed?

MR. PARTRIDGE: Yes, Your Honor.

THE COURT: Then as to Mr. Harmon, this is the next one I happen to have in my file, it's page 63 of his deposition, lines 9 through 13, page 168, lines 6 through 13. Are you with me?

MR. PARTRIDGE: Yes, Your Honor.

THE COURT: 169, lines 15 through 22. At page 170, lines 1 through 8. 171, lines 5 through 15. Are we agreed on that?

MR. PARTRIDGE: Correct, Your Honor.

THE COURT: As to Todd Kniffen, page 85, lines 4

through 7, and 98, lines 1 through 3, as I see it.

Finally, Mr. Hortin at page 51, lines 7 through 16.

MR. PARTRIDGE: Correct, Your Honor.

THE COURT: Mr. Coyne, when you discussed this matter with me earlier, are these the sections you had in mind?

MR. COYNE: Yes, Your Honor. I believe they are. I would be willing, however, to try to short-circuit this a little bit. One of them, he was specifically asked, was it obvious.

I think that was Mr. Kniffen at 85, 4 to 7.

THE COURT: Yes.

"Question: Can you think of any reason why it wouldn't have been obvious to make a door ice bin removable?

"Answer: No, I can't."

Are you willing to agree that is a legal conclusion to which he is not qualified to testify?

MR. COYNE: Your Honor, I am willing to withdraw that.

THE COURT: All right. Doesn't Mr. Harmon -- I believe he also discusses obviousness as well.

MR. PARTRIDGE: Yes, Your Honor. If you look at page 169, the portion at line 15 there, through the designated portions on pages 170 and 171, all have to do

with the concluding question about obviousness.

THE COURT: Right. Where that concluding question is at line 10 at 171:

"Do you believe it was obvious to use an automatic ice maker in the system of this application?

"Objection.

"Answer: If I was doing it, I would have used an automatic ice maker, yes."

I think that falls prey to the same --

MR. COYNE: We are happy to withdraw 10 to 15, with the question that was objected to. Would that be objectionable?

MR. PARTRIDGE: I think the whole section is a lead up to that. And it concerns a document that he indicates he hasn't seen before. So we are trying to get him to opine about it.

THE COURT: Do you two want to confer, make sure you are talking about the same thing?

MR. COYNE: I am trying to find the portions in my own copy.

THE COURT: Take your time. Go ahead. Mr. Kim is not here yet.

MR. COYNE: Your Honor, the questions at 171 from 5 to 9 are not related to the document. I would be happy to withdraw the rest of it. We would like to --

THE COURT: You would like to use, "Were automatic ice makers in existence from the IDI project?

"Answer: Yes"?

MR. PARTRIDGE: 5 to 7 is acceptable if the rest goes, Your Honor.

THE COURT: That is fine with the Court.

Mr. Partridge, I think that leaves, then, does it not, page 63 of that same section?

MR. PARTRIDGE: Yes, Your Honor.

MR. COYNE: Your Honor, we would like to retain that. That is a fact.

MR. PARTRIDGE: Your Honor, we will withdraw our objection to that.

THE COURT: Okay. So I think that completes the consideration of Mr. Harmon's designations.

MR. PARTRIDGE: A little piece of this, I think we neglected the part at the top of page 168 where that exhibit is introduced, the Japanese application. I think that comes out as well.

MR. COYNE: We withdraw that.

THE COURT: Lines 6 through 13?

MR. COYNE: We will withdraw that, Your Honor.

THE COURT: All right. Then I think that completes Mr. Kniffen and Mr. Harmon. Right?

MR. PARTRIDGE: I think that's correct.

THE COURT: The next one I have in my pile is Mr. Schwartz.

MR. PARTRIDGE: Your Honor, we missed one with Mr. Kniffen. At the top of page 98.

THE COURT: Yes. This, Mr. Coyne, is going to run into the problem that I have with Mr. Schwartz's, the objected-to portions of Mr. Schwartz's deposition that we have already identified. And I am constrained to agree with Whirlpool that this risk of potential confusion with this jury that I, frankly, do not believe can be remedied sufficiently by an instruction.

So I am going to agree with Whirlpool and sustain the objections to these designations that were identified. Again, specifically for the record, as to Mr. Kniffen, at 98, 1 through 3, and as to Schwartz, page 598, lines 5 through 21, actually, 22. And it continues on to the next page, 599, lines 1 and 2. Those designations shall not be displayed to the jury.

This, also, Mr. Coyne, runs into a concern that I have, spills over a little bit, about a line of inquiry that you made with one of the witnesses where you talked about pizza going into a freezer. As a child, where would you expect that child to put that pizza. I am not going to let you do that anymore.

I thought it was problematic at the time. It

also implies, I think, frankly, some, albeit -- I know you don't intend to be disrespectful or openly hostile to the Court's claim construction, but it at least has that potential to have that impact. I am not going to permit it, in the designations or in any further examination or any argument to the jury. Are we clear on that?

MR. COYNE: Yes, Your Honor.

THE COURT: Then, finally, that leaves Mr. Hortin. Again, that is the same issue. Page 51, 7 through 16, those lines, I am going to sustain Whirlpool's objection.

Mr. Kim is still not here, okay.

Do we know if he was driving himself?

MR. SPEARS: I think he is walking, Your Honor.

THE COURT: Okay. We will take a recess, then.

Mr. Herrmann, I did have one question. I got another verdict form from LG. It's another iteration. I have confused them, quite frankly, in the paper that I have. I don't even know what I did with it. Would you take a look at this one and see if this is the one I am supposed to have?

MR. SPEARS: Mr. Kim is here, Your Honor.

INTERPRETER KIM: Good afternoon, Your Honor.

THE COURT: Welcome, Mr. Kim.

MR. HERRMANN: Your Honor, I don't know whether

there were any changes made after Mr. Partridge sent you our verdict form.

THE COURT: They are both pretty different. Why don't --

MR. HERRMANN: Let me investigate, Your Honor.

THE COURT: Make sure you have the one you want me to have.

MR. HERRMANN: Thank you, Your Honor.

MR. COYNE: Your Honor, I just wanted to make a proffer on these issues. Not with respect to the Court's claim construction ruling. Obviously, Your Honor, we accept it. We respect the Court's position on this.

As I mentioned this morning, our inventors, our people who worked on our part of the project had the same view as some of the inventors --

THE COURT: But they didn't have the benefit, I think has been pointed out, at the time that they were making these statements, or they testified. I am not going to rehash them, Mr. Coyne.

MR. COYNE: I am not trying to rehash it. I am just asking that we be permitted to file a proffer on it. That's all. So we have a record.

THE COURT: I see no reason for it. No. You have made your argument. We know the evidence that you are referencing that is in the record or been ruled out. So you

have preserved your appellate rights, I think.

MR. HERRMANN: Your Honor, there are some notes on this form. I don't know whether they are Your Honor's notes or not.

THE COURT: They are, yes. Thank you, Mr. Herrmann. I appreciate that. Because I had a question about that.

MR. HERRMANN: I will investigate, Your Honor.

THE COURT: Here is the question, just for your benefit, both sides, Mr. Herrmann has correctly and thankfully -- I don't know if you can read my chicken scratch anyway.

MR. HERRMANN: I did not even try to.

MR. PARTRIDGE: Your Honor, they have further insight than we do.

THE COURT: A little bit. I don't know that it's real helpful.

LG, at least the iteration I have, it's the verdict form under obviousness, it has a paragraph 3(a). It has what purports to be, and at least by word, two different definitions of the person of ordinary skill. Quite frankly, I have two questions about that.

The overriding question is, really can't the parties agree upon what the proposal is in this case? Because as I read these two definitions, there is not much

difference.

MR. PARTRIDGE: We had a conversation about that over lunch today about the difference, and it not being much, and I said to Mr. Coyne at that time, I did not realize until reading the verdict form how close they were. Maybe we should just agree.

He was concerned that the jury had already heard some slight variations. I just as soon agree on something.

MR. HERRMANN: Your Honor, the last proposal we made that I thought we had an agreement to is we would draft an instruction for Your Honor to read indicating that during the trial there was testimony, but there is no significant difference.

THE COURT: That would be helpful. That's better than this. But I think would be --

MR. HERRMANN: Then it would be out of that form, Your Honor.

THE COURT: It seems to me that it should not be an issue that the jury has to wrestle with at all.

MR. HERRMANN: That's correct.

MR. PARTRIDGE: That's what I think, Your Honor. I think the odds that someone is going to remember that there is a variation, when, in fact, we simply agreed on what the level of skill is is so small that I just as soon agree on it.

MR. HERRMANN: We would agree, it should be out of the jury verdict form, Your Honor.

THE COURT: That is fine. That will be an issue that won't take up deliberating time.

MR. HERRMANN: I will investigate further, Your Honor.

THE COURT: Thank you, Mr. Herrmann.

I think we can bring the jury back.

(Jury enters courtroom at 2:11 p.m.)

THE COURT: All right, ladies and gentlemen. We are ready for you.

Mr. Coyne.

MR. COYNE: Thank you, Your Honor. LG will be calling its next witness, Mr. Il Shin Kim, who will talk about some of the development work that led to the BICS project.

... Il Shin Kim, having been duly sworn as a witness, was examined and testified through the interpreter as follows ...

MR. PARTRIDGE: Your Honor, if I may, Mr. Robinson Vu will be handling this witness. And I wanted to introduce him before Mr. Coyne began.

THE COURT: That is fine.

Mr. Kim, that microphone is pretty sensitive. So if you are more comfortable to sit back, that chair

doesn't move.

DIRECT EXAMINATION

BY MR. COYNE:

Q. Good afternoon, Mr. Kim.

A. Nice to meet you.

Q. Would you tell the jury where you work, please?

A. I currently work for LG Electronics, located in Changwon, Korea.

Q. Where is Changwon?

A. That's in the southern part of South Korea, in the countryside.

Q. How long have you worked at LG?

A. This would be my 20th year.

Q. When did you start?

A. I came on board in 1991.

Q. And what have you been doing for the company since then?

A. I have mostly been charged with the development of refrigerators.

Q. And any particular portion of the refrigerator?

A. As for me, I have been developing the ice and water system, starting in 1996 through the end of 2004.

Q. And, sir, what is the highest level of education you have achieved?

A. I have obtained up to a Master's degree in mechanical

engineering.

Q. **Let's go back to '96, then, when you started working in the ice and water group. What were you doing at that time?**

A. **I worked for a GE little place, a GE facility for a period of four months, starting in November of 1996 through September of '97.**

Q. **What were you doing there?**

A. **At the time, the company had plans to enter into a joint venture agreement with GE, and as such, I was dispatched to GE and I learned things as to the ice and water system.**

Q. **What did you learn about the ice and water system during the time you were at GE?**

A. **Well, I essentially learned the ropes as to everything, all the components that comprise an ice and water system, for instance, the ice maker, water valves, water filter, the water-dispensing system.**

Q. **And when you came back to Changwon after you finished your time at GE, what were you doing?**

A. **I then began working on the development of a Korean-oriented side-by-side refrigerator's ice and water system.**

Q. **Were you working alone or as part of a team at that time?**

A. **I did so as a member of a team.**
Q. **Do you know a Mr. Jung 0. Yoon, Y-o-o-n?**
A. **Now, that individual, I have only heard as to his name. I don't really know the gentleman.**
Q. **Have you ever worked with him?**
A. **No, sir.**
Q. **In what context have you heard of him?**
A. **Well, in terms of my hearing his name, I have simply heard as to how the said individual had briefly come on board with the company and then left soon thereafter. That's about it.**
Q. **What was he doing while he was on board with the company?**
A. **I don't exactly happen to know as to what he may have done.**
Q. **Was he in your group or a different group?**
A. **My understanding is that he was with a different group.**
Q. **Sir, I would like to take you to 2000, just skip ahead a few years. What were you doing in 2000 at your work?**
A. **I was in charge of LG Electronics' ice and water group.**
Q. **And what did that involve at that time?**
A. **Essentially, I was in a position of having to design and develop the entire ice and water system, if you will, as**

would comprise LG Electronics' ice and water system.

Q. What were you working on specifically say in about July of 2000?

A. What I began working on starting in the July time frame of 2000 was to develop a North American-oriented premium ice and water system. And, further, I then also embarked upon a global worldwide search and investigation into ice-and-water-related patents.

Q. Let me back up a second. What do you mean by a "premium ice and water system"?

A. The North American market is a market in which there is a lot of ice. The overall volume of ice requirement happens to be on the high side. So by that I am referring to coming up with an ice maker that could provide a lot of ice.

Q. Just so the jury understands, what do you mean by that? Do people in other parts of the world use more or less ice than we do here?

A. Well, for instance, the country in which I reside, Korea, people don't use a whole lot of ice there. So it's not necessary that you have an ice maker that can crunch out a lot of ice.

Similarly, Japan, the rest of Asia, indeed, Europe, at least in comparison to North America per se, folks there don't really require a whole lot of ice. So in

this regard, I needed to come up with an ice maker that was especially dedicated towards the North American market.

Q. **How did you go about doing that?**

A. **I personally took it upon myself to basically contemplate and come up with an appropriate structure and design for an ice maker, and in addition to that, when you nearly going about doing something, you want to keep the competition in mind, specifically trying not to infringe any patents of theirs, for such must be respected. So I further looked, I undertook some investigations in that regard.**

Q. **A few minutes ago you mentioned looking at patents. What did you do specifically?**

A. **The patents that I looked into were those from, say, GE, Hitachi, Mitsubishi, Sanyo, Sharp, Whirlpool, LG, Samsung, Daewoo, Bosch, et cetera, et cetera. Basically, all the worldwide refrigerator makers' patents and patent applications concerning ice and water systems.**

Q. **What did you learn as a result of this investigation?**

A. **What I was able to see was that, whereas a lot of companies and engineers out there, especially ice and water engineers, made a lot of efforts in order to somehow place the ice and water system towards the door side, basically, I saw that in spite of all those efforts, especially when it came to the placement of the ice maker, essentially, I saw that no products had been released in that, nobody really**

succeeded in commercializing these systems.

Q. And what did you do with that information?

A. And as a result of that, I was able to set up a certain vision of my own, as far as this is concerned. By "vision," I am talking about how if we were to, per chance, be successful in the placement of an ice and water system on the door side, then this might possibly lead to our company to become a global No. 1. That was my vision.

Q. How did you proceed going forward?

A. And as such, I came to share my vision as such with my group members.

Q. How did you do that?

A. We basically altogether participated in a workshop. I from the start kind of anticipated that this was going to be a pretty difficult sort of journey. As such, we went off on a hike together to conduct this workshop and ended up sharing in my vision together.

Q. How did the members of your team receive this vision?

A. As in the case of a lot of other engineers out there, their reaction was that this was going to be impossible.

Q. Why?

A. I believe that even general lay folks would easily be able to understand this, in that if you place the ice maker on the door, then it's going to result in a spillage of water; that is, when you open and close the door, basically,

the fact that there is going to be water spilling over. This is easily understood. And as such, our team members' initial reaction was that this was going to be impossible because, by virtue of that, you are going to end up defeating the purpose as to an ice and water maker. That was their initial reaction.

Q. **Why did you think it was possible?**

A. **Well, I guess I, for one thing, did not believe this to be impossible. In fact, I was quite certain that this was a problem that we must overcome no matter what, and that we ought to achieve our vision and thus make it become a global No. 1 leader. As such, I strongly pushed this upon our members.**

Q. **Well, at that time how did you think you were going to achieve this vision?**

A. **This is what I said to our team members at that time. I said, there is nothing that an engineer, or that engineers cannot achieve. I said the only thing is that we must line out each and every step that we must now undertake, and explain as to what those were.**

Q. **Can we come back for a second to this patent investigation you did? Were any of the companies that you found that had a position in the ice and water area particularly strong or particularly weak? What were your views on that at the time?**

A. **Well, in terms of the results of my patent investigation, I could tell that in such companies as Hitachi of Japan had applied for a lot of patents out there. Hitachi, Matsushita, Toshiba, et cetera, et cetera. Of course, in the U.S. we would be talking in terms of GE and Whirlpool who had applied for a lot of patents.**

Q. **What kind of technologies did you find from GE and Whirlpool?**

A. **I was able to, for instance, with respect to GE and Whirlpool, that they had applied for a lot of patents in the area of ice makers, especially in terms of dispensing systems.**

Q. **How about the Japanese manufacturers, what kind of positions did they have?**

A. **As I explained at the outset of my testimony, in the Asian countries, such as Japan and Korea and what have you, you can get by with relatively smaller ice-making capacities in terms of those countries. And there, they use what's called a twisting-type ice maker as an auto, say, twisting-type ice maker.**

In terms of the supply of water, it's not directly connected to the pipe. Rather, within the refrigerator compartment, there is a water tank that has a pump unto itself. And that's how the provision of water is achieved for ice-making purposes. That is in terms of Asia.

Again, when it comes back to North America, here you need a lot of ice-making capacity. There, they typically use aluminum die cast. This is basically what we call a heating-type ice maker. As such, I was able to see that depending on the countries involved, there happen to be different types of patents involved.

MR. COYNE: Your Honor, if I might just go to the refrigerator for a second, just to show the jury what we are talking about.

THE COURT: That is fine.

MR. COYNE: I am opening up the door to DPX-22. Mr. Brooks, can I get the Elmo on?

BY MR. COYNE:

Q. **Sir, in terms of the ice maker, what style, among the styles that you just mentioned, what style is the one I am pointing to here, the metal piece inside DPX-22?**

A. **Right. That would be a North American-type heating-type ice maker.**

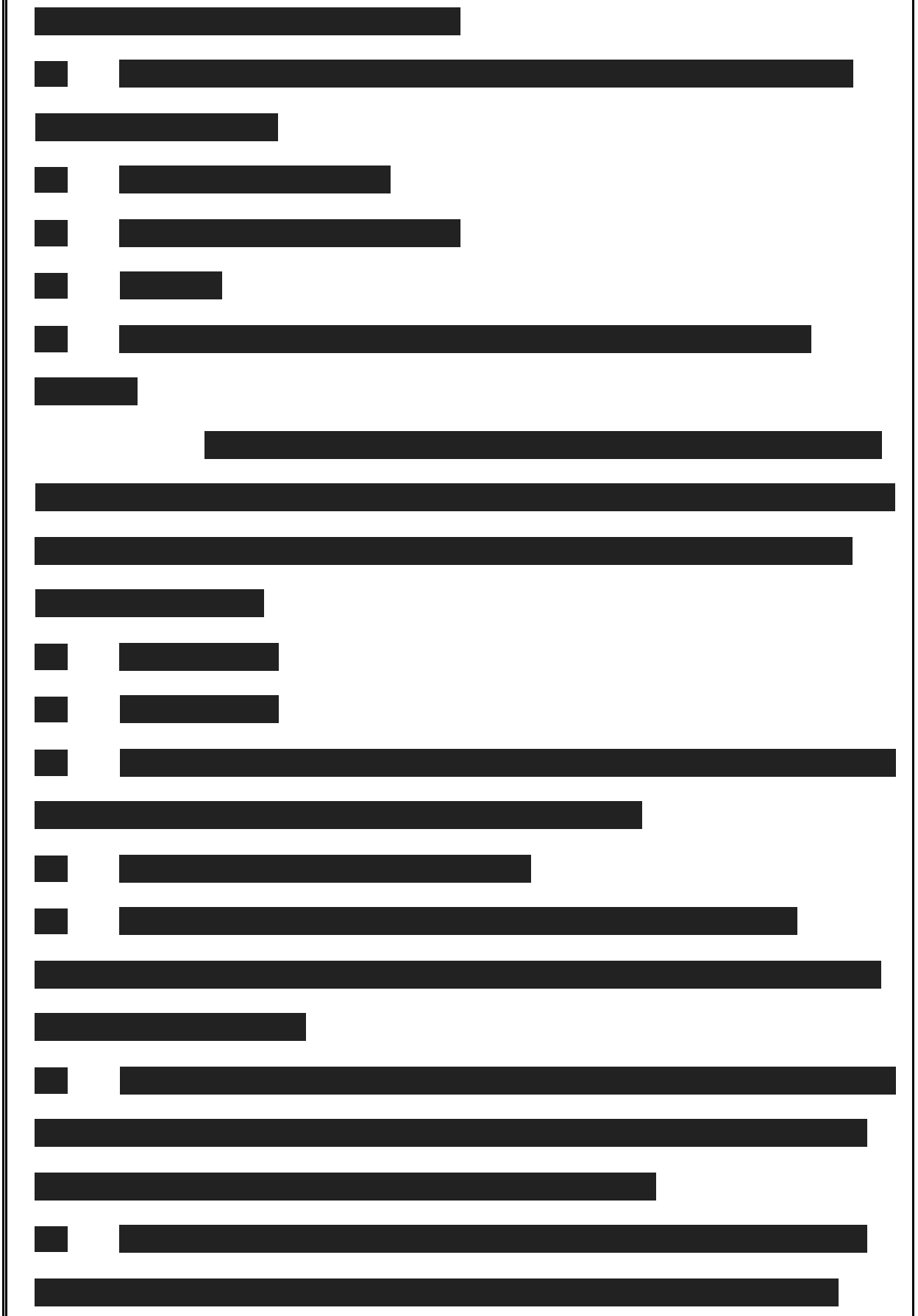
Q. **Let me come back to this workshop you mentioned. When exactly did this workshop occur?**

A. **That would be in February of 2001.**

Q. **Mr. Brooks, could we please bring up DX-795, please?**

Sir, what is this document?

A. **Now, this would be that which I related to you earlier in terms of organizing, sorting out my vision, the things I**





[redacted]

[redacted]

Brooks, can you please bring up PX-5727?

Sir, what is this?

A. **This would be my invention, as I had applied for a patent on.**

Q. **Mr. Brooks, can you please bring up PTX-9 and put Figure 3 of the two exhibits side-by-side? Can we put any marking on which one is which, please?**

Do you recognize which one is which?

A. **The one on the left side would be mine.**

Q. **How can you tell?**

A. **Well, you, yourself, should be readily able to tell in terms of how on the outside of the door there is an ice maker that is attached.**

Q. **This area (indicating)?**

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

Q. **What other differences?**

A. **In order to provide water vis-à-vis the ice maker, you need to have on the inside portion of the door the water conduit.**

Q. **That is this item?**

A. **Yes, that is right.**

Q. **What else, is there anything else?**

A. **And if you will further go down towards the lower portion, say around the middle, you will see that there is a water filter attached.**

Q. **This item 70?**

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

Q. **And, is there anything else?**

A. **Basically -- and you can't quite see this from a side cross-section, but towards the inside portions, you will also see that there is provided a water valve, as well as a water tank.**

Q. **Is there a number for those?**

A. **I am enable to tell exactly at the present moment. Again, you can't quite see these things from a side view, but you can see this from a frontal cross-section.**

Q. **Sir, are you copying the '130 patent?**

A. **Not at all.**

Q. **Why do you say that?**

A. **For my patent is far more advanced than that of Whirlpool's. It is, indeed, newer. And basically, for the benefit of our customers, I have provided more room within the freezer compartment.**

Q. **Can we go to Column 1 of the '701 patent? PTX-527, Mr. Brooks, please.**

Sir, if we go to a description of the prior art. Can you see that portion, that first paragraph?

You see the portion you are referring -- can you read English?

A. **Well, when it comes to English, I may not be able to**

exactly, say, understand things. But I am able to read numbers, certainly.

Q. You can at least see the '130 patent reference there, can't you?

A. Yes, that's right.

Q. What is the relationship between your invention and the '701 patent and the '130 patent?

A. When I was applying for my patent, I referenced the so-called '130 patent as being one of the prior art, and disclosed that to the U.S. Patent and Trademark Office.

Q. What is the relationship between your '701 invention and the '130 invention?

A. When it comes to my patent, I believe I was issued the said patent by the U.S. PTO because mine essentially is something that surpasses the '130 patent, that it represents a step further compared to the '130 patent. I believe that is the reason.

MR. COYNE: Thank you, sir. No further questions for the witness at this time.

THE COURT: Counsel, you may cross-examine.

CROSS-EXAMINATION

BY MR. VU:

Q. Mr. Kim, could I direct your attention to tab 11 in the binder that was just handed to you? For the record, this is DX-173. Earlier, your counsel asked you about

patent searches that you had done in 2001. Based on those patent searches, you believed Whirlpool's '130 patent to be known technology. Do you recall that testimony?

A. **What I said was that my personal thought on that was, the '130 patent, as far as I was concerned, constituted previously known technology, given the existence of a certain Hitachi patent.**

Q. **Could I turn your attention to page 305 of tab 11. This is, again, DX-173. Mr. Kim, do you see on the bottom, on the left, the very bottom, in the left box, it says, "Identify idea through patent research"?**

Do you see that?

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

Q. **One of those ideas that you found or identified was Whirlpool's '130 patent. Is that correct?**

A. **There wasn't just the Whirlpool patents or there were other companies' patents such as Hitachi and others as well.**

Q. **Mr. Kim, turn to page 308. Do you see a figure from Whirlpool's '130 patent on the left side of the document under the heading "Technology/Market/Advanced Maker Trends"? Do you see that?**

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

Q. **And on the left side, I think are these the other Hitachi references you were discussing?**

A. **Yes, that is right.**

Q. **And if you turn to page 306, I want to direct your attention to the bottom left corner. It says, "Trend of Technology/Market/Advanced Makers." Do you see underneath that, the first bullet, before anything else, "In door ice Bank of Whirlpool"?**

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

Q. **I want to direct you to one more document, Mr. Kim, with respect to these questions. Could you pull up DX-335?**

Mr. Kim, do you see this document is related to your Bics project? And it's dated December 16, 2003?

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

Q. **This is about two years after you did your patent searches and concluded that Whirlpool's was known, old technology?**

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

Q. **Let's turn to page 774, please. I want to direct your attention to the center of the page on the right, Mr. Kim. Do you see that it says, "Since Whirlpool has the uniquely advanced technology and rights in this area, a dispute is expected when product is developed."**

INTERPRETER KIM: Does counsel have the Korean underlying pictures?

MR. VU: I don't, actually.

INTERPRETER KIM: The interpreter understands that this is an agreed-upon translation between the parties?

MR. VU: Correct.

INTERPRETER KIM: So the interpreter will rely on that.

THE WITNESS: Yes, I see that.

BY MR. VU:

Q. **Mr. Coyne asked you a couple of questions about this. I wanted to ask you a couple of bullet points on 780 he did not ask you about. We talked about the W indicating witnesses. Correct?**

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

Q. **What your counsel didn't identify to the Court was the last bullet point, which says, "fragile in a base/foundation technique."**

THE COURT: Is that a question, counsel, or is that your testimony?

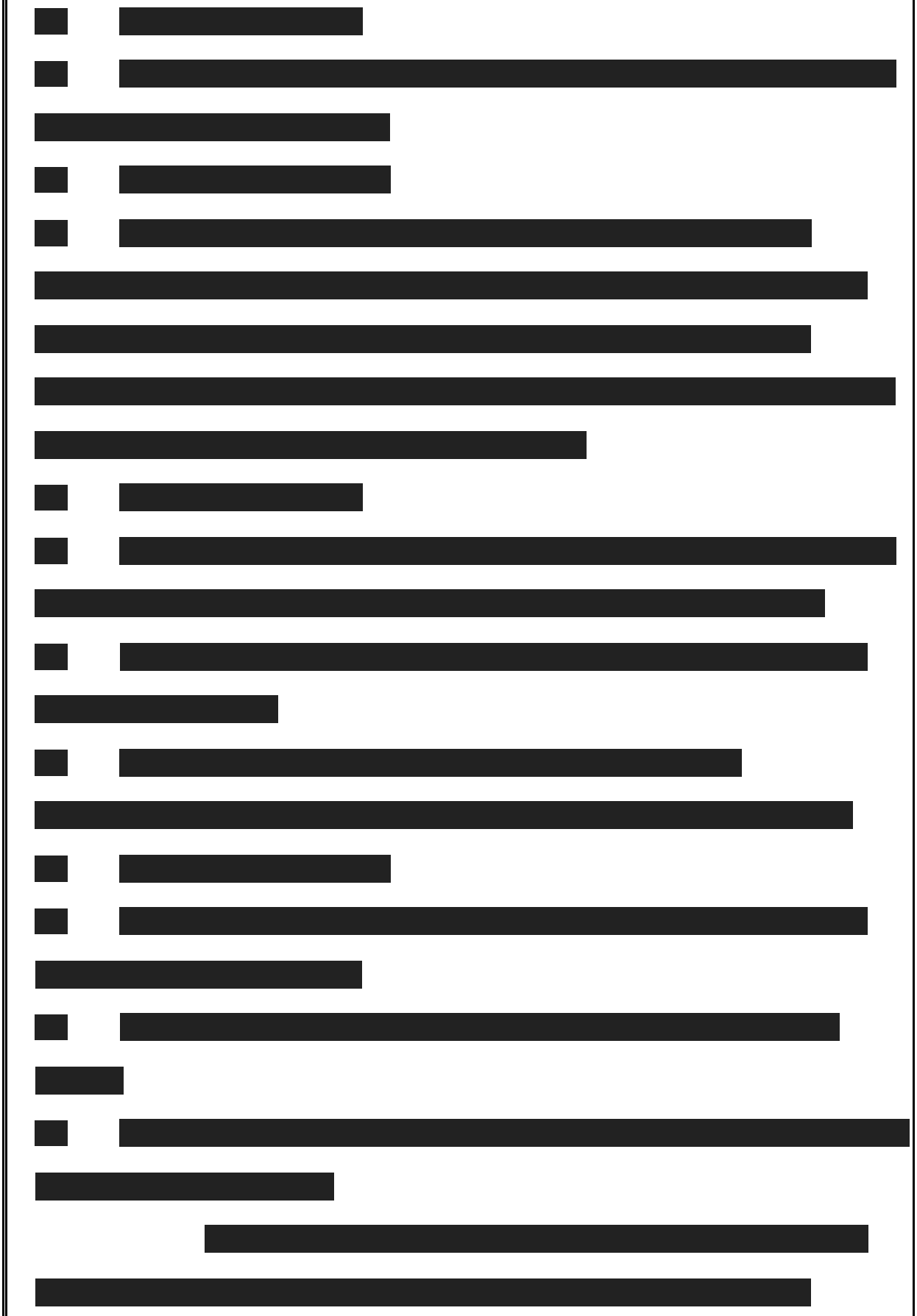
MR. VU: Pardon me, Your Honor.

BY MR. VU:

Q. **Did your counsel identify "foundation in a base/foundation technique"?**

A. **No, he did not.**

Q. **This document was in May 2001. I want to direct your attention to the same analysis I have seen in December of 2003, DX-164. This would be tab 5 of your binder. Mr. Kim, do you see that the date of this document is December 8, 2003?**



[redacted]

[redacted]

MR. VU: Your Honor, may I approach the refrigerator?

THE COURT: Yes.

BY MR. VU:

[redacted]

[redacted]

MR. VU: No other questions, thank you.

THE COURT: Mr. Coyne, you may redirect.

MR. COYNE: Thank you.

REDIRECT EXAMINATION

BY MR. COYNE:

Q. **Sir, you are familiar with the Hitachi design. Correct?**

A. **Yes, I mean, indeed.**

Q. **And did that have an auger inside the bin?**

A. **Yes, it goes without saying.**

Q. **Did that have an ice maker above the bin?**

A. **There was no indication there on top or above the ice maker, though.**

Q. **Were the other sides, except for the top, closed?**

A. **Now, when it comes to that, those amount to just general sorts of patent figures. So it's not something that I can really know about.**

Q. **How about, was there a motor in the door?**

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

Q. **Did the motor turn the auger to dispense the ice?**

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

Q. **What use, if any, did you make of those concepts in**

your vision in implementing your design?
A. Based upon our prior art search, our patent search, I was able to tell that Hitachi's technology constituted previously known technology, which meant that we could utilize this, you know, as much as we wanted to. So we used that, took that into reference quite a bit.
Q. Did you use it?
THE COURT: Yes?
MR. VU: Improper foundation, Your Honor.
THE COURT: Do you have an objection?
MR. VU: Yes, Your Honor.
THE COURT: We will talk.
(The following took place at sidebar.)
THE COURT: What is your objection?
MR. VU: He is getting into a practicing prior art defense, Your Honor.
THE COURT: I don't know what you mean.
MR. VU: He asked him -- the witness answered if he thought he was practicing and if he was free to use it. Mr. Coyne, asked, were you practicing Hitachi. I think it is going to confuse the jury that if you practice a prior art patent you don't infringe another patent.
MR. COYNE: It expired at this point. That is what he was saying. He was using concepts out of this other design that was public domain information. That is all I am

asking him.

THE COURT: Therefore, not copying Whirlpool's patents?

MR. COYNE: Yes, Your Honor.

MR. VU: That is fine. If it gets to infringement...

THE COURT: I don't think there is anything improper with Mr. Coyne's questions. I overrule the objection.

(End of sidebar conference.)

BY MR. COYNE:

Q. **Did you use Hitachi?**

A. **We carved out our own niche area. And, further, we did utilize Hitachi.**

Q. **Mr. Vu asked you a couple times about your Bics project. Were you one of the members on the team Bics project?**

A. **Well, when it comes to the Bics project itself per se, that was spearheaded by the Seoul-based R&D center. As for me, I would joined them maybe once or twice a month and review things.**

Q. **But it wasn't your Bics project. Right?**

A. **Yeah. But because this was based upon my vision, you could say that it was my project.**

Q. **Could we go back to DX-16, please? Mr. Brooks, would**

[redacted]

[redacted]

Was that patent still in existence at the time you were still doing this work?

A. **The Hitachi patent, by the time I was working on this, was already known, publicly known technology.**

[redacted]

Q. **Did you think you would be infringing Whirlpool's patent by using the ideas out of the Hitachi patent?**

MR. VU: Objection. The same objection as before.

THE COURT: That we had at sidebar? Overruled.

THE WITNESS: No, that is not at all the case.

MR. COYNE: Thank you, Your Honor. No further questions.

THE COURT: Thank you. Sir. You are excused. .

(Witness excused.)

THE COURT: Ladies and gentlemen, let's take our afternoon break.

(Jury leaves the courtroom at 3:30.)

(The following took place at sidebar.)

MR. VU: Just because they are practicing the invention doesn't mean you don't infringe.

THE COURT: I agree. It goes to the question of willfulness, doesn't it?

MR. VU: It does. But it's a difficult question. They should have been.

THE COURT: We don't have to do this on the record.

(Sidebar conference not reported.)

THE COURT: Ms. Walker.

(Jury enters courtroom at 3:55 p.m.)

THE COURT: Okay, ladies and gentlemen.

Mr. Coyne.

MR. COYNE: Thank you, Your Honor. LG calls Dr. Manny Lee back to the stand.

Your Honor, we have new direct binders for this portion of the testimony.

Ladies and gentlemen, at this point the Doctor will be coming back to testify about the Bics project.

(Myung Ryul Lee having been previously sworn as a witness, was examined and testified further as follows ...

DIRECT EXAMINATION

BY MR. COYNE:

Q. **Good afternoon, Dr. Lee.**

A. **Good afternoon.**

Q. **Do you understand you are still under oath?**

A. **Yes.**

Q. **What were you doing in early 2002?**

A. **Early 2001?**

Q. **2002. Let's say 2001-2002. What were you doing with your time in those days?**

A. **At that time, early 2002, I do the new project related to the energy saving.**

Q. **You talked the other day about your doctoral work. When did you finish your doctoral work?**

A. **I finished my Ph.D. in 2001.**

Q. **What did you do after you finished your doctoral work?**

A. **I came back to the LG Laboratories.**

Q. **What did you do when you came back to LG?**

A. **First I did an energy save project of the refrigerator.**

Q. **Had you had any contact with Mr. Il Shin Kim prior to the time that you came back to LG after your doctoral work?**

A. **No. I don't have any contact with him.**

Q. **After you came back. After you finished your Ph.D., did you have any contact with him?**

A. **Yes.**

Q. **How did that happen?**

A. **The first time we met around May 2002, he suggested to us to make a new ice and water system, means to put the old component of the ice and water to the door.**

Q. **And what did he explain to you about that idea?**

A. **He has -- what I mentioned before, he has an idea of the device and system, indoor-ice system. It is a very great idea, I think, and then, though, it costs a lot. And he want us to develop that idea.**

Q. **When you said it was a great idea, are you saying what he thought or what you thought?**

A. **I think it is very wonderful idea here. And I loved that idea very much.**

So I was willing to do that.

Q. **What did you do to take that idea forward?**

A. **(After consulting with interpreter) After that, I**

really liked to do that project. And I have some funds, I needed some funds. So I talked with my lab director; told him what I needed. I needed some engineers and funds and some facilities to develop that project.

Q. **And did you get the funding and the engineers that you needed?**

A. **Yes.**

Q. **How did you go about getting the engineers and the funding?**

I will rephrase it.

What did you do when you started working on this project?

A. **First time we had to study on that project, the project was great, but we have to know, really, we can make it or not. So we discussed with many engineers about that, and we made some feasibility study for that.**

Q. **Are you saying "feasibility study"?**

A. **Yes. Feasibility study.**

Q. **Okay. How did that feasibility study progress? What did you do first when you started that?**

A. **You make some idea of how we make an in-door-ice system. Then we saw the issues, such as the water spilling over of the ice maker. Let me explain that there is so many technical issues. The first and most important issue is the water spill over from the ice maker.**

When you -- in the ice maker, the ice maker located in the door. So the customer will always open and close the door of the refrigerator.

So that ice maker located in door, when you open the door, it's moving with the door. And you close the door, it closes, would follow with the door.

So when you open the door and close the door, then at that time the water supplied to the ice maker, but it is not freezing yet, but the customer opens the door and closes the door, then the water is spilled over. And it is spilled over to any of the freezer door, and the freezer compartment.

So it is one of the most important technologies to develop. So we had -- tried to make some idea of that first.

Q. **At the time you were trying to make these ideas, were you aware of the '130 patent?**

A. **Pardon me?**

Q. **Did you know about the '130 patent when you started doing this feasibility study?**

A. **At that time I didn't know the patent of the '130. But I realized the '130 patent, just after we started -- or around just the start of the project at the facility.**

Q. **When did you find out about the '130 patent?**

A. **As long as -- I believe it was just studying the**

project, it was around October 2002.
Q. How long did the feasibility study last?
A. It takes about three or four months.
Q. What months was the feasibility work being done?
A. After that, though, we decided to start the project, and then we go forward with the activity of to make some samples to prove our feasibility would work.
Q. When did you make those samples?
A. From around January of 2003.
Q. Can you tell me what months the feasibility study work was being done?
A. It takes about six months, from the start of the project, I am from October of 2002.
Q. So it was six months before the start of the project?
A. Pardon me?
THE WITNESS: (After consulting with interpreter) No. I mean, the feasibility is just the study, just before the process start. And then we made some Bench tests. And then we -- to prove our concept will work or not, it takes about six months, the kind of concept building.
BY MR. COYNE:
Q. When you did this feasibility study, what did you conclude at the end of the feasibility study?
A. You mean the feasibility study ended just the

beginning -- the feasibility takes next to six months. So which point are you asking?

MR. COYNE: Your Honor, I just want to get these dates out. Would it be permissible if I just ask the three questions to get this in context for the jury?

BY MR. COYNE:

Q. You did the feasibility work what, from about May to October?

A. (After consulting with interpreter) Yes, correct.

Q. And then you started with the concept building when you began the project in October?

A. (After consulting with interpreter) Yes.

Q. And then when did the Bics project end?

A. The Bics project ended December 2003.

Q. Was it completed on schedule?

A. Yes.

Q. Would you please pull up DX-700 again, please, Mr. Brooks? I am sorry, it is DX-770. Excuse me.

A. Yes.

Q. Sir, have you seen this document before?

A. Yes.

Q. What is it?

A. This is a project completion report of the Bics project.

Q. Is this the final report or a draft report? What is

it exactly?
A. This is the final report.
Q. Were there other versions of this, other drafts of this?
A. Yes. We have another person with the draft.
Q. Do you see that in your binder?
A. Yes. DX-772 is the rest of our final report, the draft of our final report.
Q. How do you know which one is the draft and which one is the final?
A. The draft has not been finished yet, so we don't have enough amount of the documents. So the draft is little bit short and the final report is all files, all contents. So it is thick, more pages.
Q. Mr. Brooks, can we get DX-770 and DX-772, the first pages of each, side-by-side?
Dr. Lee, the dates on both of them are December 16, 2003. Correct?
A. Yes.
Q. Okay. Were they both written the same day?
A. No, because this is a final due date of the report. So we prepared this document before the -- about one month before we prepared it.
Q. Thank you.
MR. COYNE: With respect to the final report,

Your Honor, I would like permission to publish it to the jury for their books.

MR. PARTRIDGE: We would object, Your Honor. They have singled out one exhibit to publish for the jury's books. There could be any number --

THE COURT: Fair enough. No.

MR. COYNE: Thank you, Your Honor.

BY MR. COYNE:

Q. **Let's go back, then, to the Bics project, sir. Mr. Brooks, can we bring up DX-0165?**

When you started the project in October, what did you do as you began working on it?

A. **You have a meeting in our lab, how we can make this project.**

Q. **And what did you discuss at that meeting?**

A. **Just a second. I have to see that.**

Initially, at the time, we made two products for the Bics in-door-ice system. The first one is the system development, beginning development things. And the other one is central and functional development. So we separated that project at that time. But finally, we didn't do the sensor and control development. We just do the system and the mechanical development of the in-door system.

Q. **Could we go to page 3 of 4 of the document, Mr. Brooks?**

Doctor, here we have one of the pages of the report we were just looking at.

What information is on this page?

A. **This says how long we are going to do this project, or what time we want to make, view the product and how much money you have to spend or how many people involved in this project.**

So this is a brief outline of our project.

Q. **So at this time in September, how much were you estimating the project was going to cost?**

A. **At that time, we think about 500 million -- $5 million.**

Q. **Five million U.S. dollars?**

A. **Yes, for just ours.**

Q. **Mr. Brooks, can you get the cost of development box? Can you highlight the development costs? You can leave it small.**

A. **At the time, our currency is higher than that one. So it costs us more than that one.**

Q. **Sir, in terms of the objective, what were you trying to do? Can you explain to us what your objectives were for this project?**

A. **It says one better than ice maker attached to the door. And then we want to ensure the integrity of the ice-making system with the door, then we want to get the**

highest speed of the ice-making system.

Q. Why did you need to increase the speed of the ice-making system?

A. Because the customer want more ice than the small one.

Q. Sir, why would you need to make ice faster to get the same amount of ice?

A. The fast time is we want to make more ice capacity. So we want to give more ice to the customer.

Q. Then on the upper right-hand side you have an indication under "Advanced Trend USA," "Attachment of a Whirlpool's door bank side-by-side refrigerator." What do you mean by that?

A. At the time Whirlpool has the in-door-ice bank on the side-by-side refrigerator.

Q. And what was your intent with respect to this project?

A. (After consulting with interpreter) My proposal of this project is to develop, well, the first device in making the system. As I mentioned before, in-door-ice-making system is really difficult to us. Nobody done it before.

So we want to make it, because it is the most intelligible to me. And I loved the kind of product are have very much. So I would like to do this project. I ideally want to do this project.

So my proposal of this project is, I mentioned before, well, the first in-door-ice system.

Q. **Who was in charge of this project?**

A. **I was the leader of this project. And we had three more engineers.**

Q. **Now, when you discover, right-hand corner, "Attachment of a Whirlpool ice bank," were you trying to copy Whirpool's ice bank?**

A. **No, definitely not. We want to really make something different and something new, ice and water system.**

Q. **Wouldn't it just have been easier to copy somebody else's?**

THE INTERPRETER: Repeat the question, please.

BY MR. COYNE:

Q. **Would it have been easier to copy somebody else?**

A. **(After consulting with counsel) It is the easiest way. But we don't want to never do that, because, as I said before, we really want to make a wonderful and good technology. I am interested in that. I don't want to never about someone else's technology.**

Q. **Could we go to DX-332, please, Mr. Brooks -- I am sorry, DX-333, I misspoke.**

Sir, what is this document?

A. **This is our project, the project of our in-door-ice make system project.**

Q. **Do you see the term "door icing" on the first page?**

A. **Yes. It was the usually name of our project.**

Q. **Was that changed to something else at some time?**

A. **Yes. I changed this name, because the door icing means some technical pump. So from this project, the customer gets more space. And then I want to change the name, as the customer's value. So Bics means the Bics piece. So really we want the big space. Really we want to give the customer big space.**

Q. **Does Whirlpool's '130 patent give the customer big space?**

A. **Yes. Even Whirlpool gives more space than most people, but we gave 90 percent of the space we were able to give.**

Q. **Can we go to the next page, Mr. Brooks? I think 678 are the last three digits. What is this page showing? If we look over on the right-hand side, there is a paragraph, "Develop Whirpool ice bank patent avoiding technology."**

What does that mean?

A. **At the time we learn about the Whirlpool technology and Whirlpool '130 patent. So we want to try to design around the Whirlpool ice storage bin.**

Q. **Okay. And if you look down in the middle of the document, if you pull back out, Mr. Brooks, down in here, what is this portion of the document indicating? Door-attached ice bank, ice maker is located in the freezer part, has been launched by Whirlpool only?**

A. **Yes, at that time, right.**

Q. **What does that mean? Can you tell us what that means? Are you talking about a product?**

A. **Yes. At that time, the ice maker is located -- Whirlpool has the product that the ice maker is located in the freezer compartment, and the ice storage bin is located in the door. They have a different product.**

Q. **Can we go down two more pages to the section that is on page 680?**

A. **Yes.**

Q. **This is DX-333.**

If we go down to the next document, 332, sir, the next document is dated November 19, 2002. What are you doing between those two reports?

A. **Yes. We made for the first time the people planning, and then this is the final report, planning report for the approval, our top management.**

Q. **So on November 19, 2002, report is going up to management?**

A. **Yes.**

Q. **What are you proposing at this time?**

A. **We propose to develop the new technology, including in-door-ice system, having the old components -- actually, the ice and water system needed -- the ice-making system needed seven components. First, the water supply, and then**

the water prepared, and the water tank, to keep the water cold. And the ice maker, and the ice storage bin, and open water to feed the ice to the dispenser. And we need to suck it. We need seven components to make ice-making system.

We want to put the old components to the door. But Whirlpool has only two components in the door. The ice storage bin and the open water.

So we wanted to develop the new technology, any other one have done. So I suggested how management will -- this is really fantastic project. So I asked for their help.

Q. **Mr. Brooks, could we bring up a split screen with DX-165? The page ends in 7821 on one side. Then can we go to the November 19 report and bring up the page that ends in 2308?**

Sir, the report on the right is the earlier report that we looked at a few minutes ago, with this design that I am highlighting with the laser pointer. Do you see that?

A. **Yes.**

Q. **Okay. And in the November report, you have included the page that has the picture of the Hitachi door ice bank, Whirlpool door ice bank, and Hitachi door ice maker. Do you see that?**

A. **Yes.**

Q. **Which of these concepts were you proposing to management in November of 2002? What were you asking management for approval to start working on?**

A. **At that time we suggested to our top management, on the right side of the picture shown there. And we want to make a whole system into the door, ice system, we want to develop it.**

Q. **So which of these concepts, the Hitachi, the Whirlpool door ice bank, or the Hitachi refrigerator, the ice maker, what exactly were you proposing to management that you would continue working on?**

A. **We wanted to use the Hitachi type of ice bank, because that invented in 1976. So it passed the 20 years, it passed all of the 20 years.**

So the patent right expired. So we -- as I mentioned in front of the report, we want to design-around from Whirlpool. So we want to use that technology because they expired their rights. We used the Hitachi concept.

Q. **After the date of this report in November, do you continue working on a design of this type of configuration that is shown on the right, the vertical design?**

A. **No. We never used that Whirlpool-type ice storage bin after that date.**

Q. **Did you ever make a prototype or a product with that Whirlpool-style design?**

A. **No, never. We didn't consider, never considered that.**

Q. **Sir, if we go back. Mr. Brooks, can we go back to Exhibit 332? And pick up page 42306.**

Sir, we are at this page labeled "Project Plan Summary." What is this portion of the document?

A. **This is the project plan of the in-door-ice system.**

Q. **Okay.**

A. **This is a summary of the whole project.**

Q. **If we go down to the lower left-hand corner, there is a box entitled, "Trend of Technology/Market/Advanced Makers." Do you see that?**

A. **Yes, I see.**

Q. **Then it says below it, "In-door ice bank of Whirlpool." And below that, "Development of the technology for manufacturing the ice maker installed on a door of Hitachi."**

Do you see that portion?

A. **Yes.**

Q. **What does that mean?**

A. **This means we showed the two technologies exist. One is the Whirlpool ice storage bin in the door, and the other one is the Hitachi door with the ice maker.**

Q. **Mr. Brooks, can we go back out again?**

In the center portion of the document there is a box that's labeled "Differentiation Point." Do you see

that?

A. **Yes.**

Q. **Underneath that, are "Strengthen the competitiveness of our product by maximizing the space using capacity of a big freezer." And "The capacity of the freezer is expected to be increased by more than 20 liters." Then finally below that, "Reduce the refrigerator manufacturing cost by simplifying its manufacturing process."**

What does all that mean?

A. **It means, as we want to give more space to the customer. The first sentence means that.**

The next one is how much you can give the customer after this product is done.

And the last one is, when we built the whole ice and water system into the door, it is very simple to make into mass production, because we made a whole cabinet and we put the whole system into the door, then we made a door, then we attached those two. Then we can make mass production simple. So we can save the money in the mass production.

So this is the cost of reduction of the manufacturing.

MR. COYNE: Your Honor, may I approach the units for just a second?

THE COURT: Yes.

BY MR. COYNE:

Q. **Sir, in making this unit, it seems like it's a lot more complicated than a regular refrigerator and freezer system. How can you make it cheaper when you have got all these extra components?**

A. **(Speaking Korean.)**

THE COURT: We are going to save that response for another day, Monday. I am going to let you leave. Remember my earlier instructions to you, remember them for the weekend. Should there be anything written for the weekend, I don't know that there will be, don't discuss it, watch TV or go on the Internet or anything, please avoid that. Stay out of Home Depot, the appliance section. It is a temptation. I understand that. It is really vital that you do that, and not discuss the case with anyone.

We will see you back here at 9:00 on Monday.

(Jury leaves courtroom at 4:35 p.m.)

THE COURT: My only question is, Mr. Herrmann, have you reached that verdict form?

MR. HERRMANN: I don't have an answer for you yet. I can tell you that we are going to take out and agree on a jury verdict form section that relates to the issue of schooled in the art.

And if there are any differences, and I hope there are not, if there are any differences between

Whirlpool ---our version of the jury verdict form that Whirlpool sent to the Court and ours, we will alert the Court. We will also alert the Court that there was no difference, tonight.

I will tell Your Honor --

THE COURT: Why don't you just send me over a fresh copy when you are ready.

MR. HERRMANN: That is fine.

THE COURT: As for Whirlpool's form, I do have a concern about the manner in which you have treated the questions on obviousness. They give jury instructions. I am not going to let you do that. I am going to instruct the jury. Not through the verdict form.

MR. PARTRIDGE: Yes, Your Honor. By way of a brief clarification as to why I did that. I fully understand your choice in that regard. Again, it goes back to this evolving standard. There was a committee put together by Chief Judge Michel last year that came up with new jury instructions.

THE COURT: We know about those.

MR. PARTRIDGE: My concern was the evolution of the case law. I wanted to preserve again an issue. If we weren't on this record and we were talking privately, I might have a different position than the one I need to take officially in terms of that verdict form.

Given that direction, that helps, Your Honor. I now know how you have instructed us and I now know how to further simplify our version of the verdict form.

THE COURT: Good. I have sort of skimmed through them and I have identified a couple of issues. I am not sure that I feel that one approach has, necessarily, any benefit over the other. Mr. Coyne's burden of proof approach, your patent approach. I am not certain one way or the other at this point.

What I was more concerned with trying to do was identify where I thought I might see substantive differences between the parties as opposed to form differences. Perhaps over the weekend you will actually be able to agree as to form. I don't know. There don't seem to me to be too many substantive differences.

MR. PARTRIDGE: I think we are actually fairly close, Your Honor. There are some things, now that we have some direction from you, maybe we can narrow this further. I would note in terms of burden of proof in the middle of the infringement section is the willful infringement instruction, which, of course, the willful infringement interrogatory has a different burden of proof. So there is that confusion built into the proposal that LG has made.

THE COURT: If I were to make the call today, and I am not saying that I am, at this point, having only

skimmed, my leaning is toward the patent-by-patent approach, because it calls out the burdens. I think it does.

MR. PARTRIDGE: It does, Your Honor. And it's consistent with your preliminary instructions in that format.

THE COURT: I don't know if that helps. At least that's my inclination at this point.

Is there anything you need from me?

MR. PARTRIDGE: I don't think so, Your Honor.

THE COURT: Have a good weekend.

(Court recessed.)