IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

THE GILLETTE COMPANY,
Petitioner,
v.
ZOND, INC.,
Patent Owner.

Cases: IPR2014-00477
IPR2014-00479
Patent 8,125,155 B2

VIDEOTAPED DEPOSITION of RICHARD DeVITO

Boston, Massachusetts

November 20, 2014

Reported by:
Dana Welch, CSR, RPR, CRR, CBC, CCP
Job #87397

Page 2

November 20, 2014
9:40 a.m.

Videotaped deposition of RICHARD DeVITO, held at the offices of WilmerHale, 60 State Street, Boston, Massachusetts, before Dana Welch, Certified Shorthand Reporter, Registered Professional Reporter, Certified Realtime Reporter and Notary Public of the Commonwealth of Massachusetts.

Page 3

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- AND -

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Page 4

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--- appearances continue ---

Page 5

APPEARANCES (continued)
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BY: GREGORY HUH, ESQ.

Also Present: David Woodford, Videographer
Joann Pappas, The Gillette Company

DeVITO

P R O C E E D I N G S

THE VIDEOGRAPHER: This is tape number one to the videotaped deposition of Richard DeVito. This is in the matter of The Gillette Company, petitioner, versus Zond LLC, patent owner, Case IPR2014-00479 and also Case IPR2014-00477 for Patent 8,125,155 B2. This is in the U.S. Patent and Trademark Office before the Patent and Trial Appeal Board.

This deposition is being held at the firm of WilmerHale at 60 State Street, Boston, Massachusetts on November 20th, 2014 beginning at 9:40 a.m.

My name is David Woodford. I am the legal video specialist from TSG Reporting, Inc., headquartered at 747 Third Avenue, New York, New York. The court reporter is Dana Welch, in association with TSG Reporting.

Will counsel present please introduce yourselves and the witness will be sworn.

MR. LAHAV: Etai Lahav of Radulescu LLP representing patent owner Zond.

MR. BARKER: This is Bruce Barker from Chao Hadidi Stark & Barker also for Zond.

DeVITO

MR. CAVANAUGH: David Cavanaugh of WilmerHale representing Gillette.

MS. PARK: Larissa Park of WilmerHale representing Gillette.

MS. PAPPAS: Joann Pappas, from Gillette.

MR. HUH: Gregory Huh of Haynes and Boone, representing TSMC.

MR. JACKSON: Don Jackson, representing TSMC.

MR. McCOMBS: David McCombs, representing TSMC.

RICHARD DeVITO, sworn

MR. LAHAV: And before we begin with the testimony, I note that counsel for TSMC is here and we don't have any objection to your presence, but we do object to you speaking on the record since it's Gillette's petition. Hopefully that won't be an issue, but if it does, I guess we can talk about it later.

EXAMINATION

BY MR. LAHAV:

Q. Good morning, Mr. DeVito.

A. Good morning.

Q. Will you please state your full name and

DeVITO

address for the record.

A. Richard DeVito, 11 Parkside Drive, Jamaica Plain, Massachusetts.

Q. Have you ever given a deposition before?

A. In a divorce case years ago.

Q. Apart from the divorce case years ago, have you ever given a deposition?

A. No.

Q. So before we begin in earnest, I'll go over some rules of deposition; is that all right?

A. (Nodding head up and down.)

Q. Do you understand that I'm going to be asking you questions?

A. Yes.

Q. And do you understand you have an obligation to answer my questions?

A. I do.

Q. Do you understand that from time to time your attorney my object to my questions?

A. I do.

Q. Do you understand that nevertheless you have an obligation to answer those questions?

A. I do.

Q. The only instance where you do not have to

DeVITO

answer my question is if the attorney objects for attorney/client privilege or work product. Do you understand that?

A. I do.

Q. If you need a break at any time, please let me know and we'll be happy to go on a break.

A. Okay. Thank you.

Q. One exception to that is if there is a question pending, then I'll insist on an answer before we take a break. Is that okay?

A. Understood.

Q. If I ask you a question that you don't understand, can you please let me know and I'll rephrase.

A. Okay. Great.

Q. If you answer a question, I'm going to assume you understood it; is that all right?

A. Okay.

Q. You understand you just took an oath to tell the truth?

A. I do.

Q. You will tell the truth today?

A. I will.

Q. Are you taking any medication today that

would impair your ability to testify truthfully?
A. I am not.
Q. Is there any other reason why you are not able to testify truthfully today?
A. There is not.
Q. Please describe your post high school education.
A. I have a degree in physics from Suffolk University and a master's degree in physics -- experimental solid state physics from Syracuse University.
Q. In your bachelor's degree, did you ever take any classes in plasma physics?
A. Not plasma physics, per se, no.
Q. And in your graduate work, did you take any plasma physics classes?
A. Not plasma physics, per se, no.
Q. Did you take any classes in either bachelor's or master's relating to sputter deposition?
A. I did not, no.
Q. Any classes on any PVD process?
A. No.
Q. In the CV that you submitted along with

your declaration, you begin your experience in -- your commercial experience in 1987; is that fair?
A. Sounds about right.
At Litton?
Q. Yeah.
And so from 1987 to 1994 you were employed by Litton?
A. I'd have to see, but it sounds about right.
Q. Okay. And what were your responsibilities at Litton?
A. Well, they were varied.
Do you just want to know about the thin-film stuff or PVD stuff?
Q. Why don't you tell me about the PVD stuff.
A. Okay. So PVD, I was involved in ion beam deposition, ion beam etching; PVD, I was involved in some sputtering as well, as well as plasma CVD, plasma enhanced CVD.
Q. And what do you mean involved with?
A. I was the lead researcher on those programs.
Q. What did those programs relate to?
A. So in the plasma CVD work we were

making -- and also there was sputtering work, we're making infrared transmitting windows that were resistant to scratching in planes basically, fighter jets.
Q. And what specifically was the focus of your research with respect to the plasma CVD?
A. So there was sputtering and plasma CVD. So in both work, we were trying to come up with compounds that were transmitting in the infrared and also were very robust and tough in terms of the environment, because they were being used mainly in the desert. So for example, germanium carbide, silicon carbide, these are the types of materials we were trying to deposit using RF and DC sputtering and also plasma enhanced CVD.
Q. So you were investigating target materials?
A. Well, we would use different targets to get the films.
Q. And did you do any research into appropriate pressures or power to be used for the deposition?
A. We investigated the entire space using design of experiments.

Q. And in your specific role in that research, did that relate to the investigation of the pressures and other operating conditions of the deposition chamber?
A. I designed the experiments and I actually ran the machine. At first I didn't have a technician; later on I did have a technician. But I was very hands-on. I'm always hands-on.
Q. What do you mean by "designed the experiments"?
A. So if someone wants to figure out, for example, what -- you look at the pressure, you look at the power, you look at the energetics, and you design experiments around those variables to get a range of experiments that you can test.
Q. What do you mean by "energetics"?
A. So in the plasma, whether it's PECVD or whether it's sputtering, you have a range of energetics, so the incoming energy of the atoms or the ions.
Q. So by "energetics," you mean the energy of atoms or ions?
A. Correct.
Q. And you said you did some work in ion beam

deposition?
A. Correct.
Q. And what was that?
A. One second.
So one of the ways to increase the density of the film is to apply an ion beam directly to the substrate while the film is growing on it, so we call that ion beam-assisted deposition.
Q. And what was the application you were researching?
A. So all these -- my entire thin-film focus from the company was to enhance the hardness, enhance the durability of these films that were transmitting in the infrared, for example, as I said, silicon carbide, germanium carbide, and diamond-like carbon.
Q. So all of your thin-film work related to that application, correct?
A. At Itek, yes -- or Litton, sorry.
Q. And so what's the relationship between Litton and Itek?
A. So Litton Industries was the conglomerate that owned Itek.
Q. So you had always worked for Itek or did

Litton acquire Itek while you were employed there?
A. I believe several months before I joined they had purchased Itek Optical Systems.
Q. Did any of your work at Litton-Itek involve magnetron sputtering?
A. Yes.
Q. And what we just discussed, was that magnetron sputtering?
A. Yes. For example, the silicon carbide and germanium carbide were magnetron sputtering.
Q. Any other magnetron sputtering experience at Litton-Itek?
A. Just that.
Q. Do you remember the chamber that you used?
A. Yes. I designed the chamber.
Q. Okay. So it was -- it wasn't a commercial chamber, it's one you designed from the ground up?
A. We worked with a company that's no longer in existence to design that chamber, yes. It was designed to my specifications.
Q. What was the name of the company?
A. It's been so long ago.
Is it in the -- can I check my CV to see if it's in there?

Q. You may. That means I have to now go searching for an exhibit.
A. I'm hoping it's in back of one of the depositions.
Q. I just want to make sure I'm seeking out the right declaration. I may have to mark several of them.
I'm handing you what already bears an Exhibit Number 1005 in the '477 proceeding.
A. Okay. Great.
Q. Before we go to the pending question, can you please confirm that Exhibit 1005 is a declaration that you signed in connection with the '477 petition?
A. Yes.
Q. And so back to the question, we're looking for the name of the company that you worked with to design the chamber when you were working at Litton-Itek
A. I'm sorry. I don't see it here.
Q. Okay. Did you design the magnet for the chamber?
A. The magnetron? No.
Q. Who designed the magnetron?

A. It was a company called S/Gun out in Stanford, California.
Q. Did you design the power supply for the chamber?
A. I did not.
Q. Do you know what power supply you used?
A. I believe it was ENI.
Q. Is that E and I or ENI?
A. Capital E capital N capital I.
Q. Do you remember the operating characteristics of that power supply?
A. Oh, gosh, all I can tell you, it was an RF supply, that's all I remember. I don't know the maximum power.
Q. Were there any other power supplies used for that chamber?
A. We did have a DC power supply as well.
Q. Did you design the DC power supply?
A. No.
Q. And who provided that?
A. Advanced Energy.
Q. AE?
A. AE, yes.
Q. Yeah.

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