UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

----------X

AMERICAN NATIONAL MANUFACTURING INC.,

Petitioner,

v.

SLEEP NUMBER CORPORATION,
f/k/a SELECT COMFORT CORPORATION,

Patent Owner.

----------X

Cases

IPR2019-00497 (Patent 8,769,747 B2)

IPR2019-00500 (Patent 9,737,154 B2)

DEPOSITION of DR. JOSHUA PHINNEY

September 24, 2019

New York, New York

Reported by:

Joseph Danyo V

Job no: 26065

DEPOSITION of DR. JOSHUA PHINNEY, pursuant to Notice, held at the offices of Fox Rothschild, LLP, 101 Park Avenue, 17th Floor, New York, New York, on September 24, 2019, at 9:00 a.m., before Joseph Danyo V, a Shorthand Reporter and Notary Public for the State of New York.

APPEARANCES:

SPENCER FANE LLP
Attorneys for Petitioner
1000 Walnut Street, Suite 1400
Kansas City, Missouri 64106
BY: KYLE L. ELLIOTT, ESQ.
kelliott@spencerfane.com

KEVIN S. TUTTLE, ESQ.
ktuttle@spencerfane.com

PILLSBURY WINTHROP SHAW PITTMAN LLP
Attorneys for Patent Owner
501 West Broadway, Suite 1100
San Diego, California 92101
BY: STEVEN A. MOORE, JD, Ph.D.
steve.moore@pillsburylaw.com

-AND-

FOX ROTHSCHILD LLP
222 South Ninth Street, Suite 2000
Minneapolis, Minnesota 55402
BY: LUKE D. TOFT, ESQ.
ltoft@foxrothschild.com

* * *

J. PHINNEY

D R. J O S H U A P H I N N E Y,

the Witness herein, having first been duly sworn by the Notary Public, was examined and testified as follows:

MR. MOORE: Steve Moore for Sleep Number Corporation from Pillsbury Winthrop, and with me is Luke Toft from Fox Rothschild.

MR. TUTTLE: Kevin Tuttle from the law firm of Spencer Fane LLP in Kansas City, Missouri, for petitioners, American National Manufacturing, and I'm here with my colleague, Kyle Elliott, of Spencer Fane in Kansas City, Missouri.

EXAMINATION

BY MR. MOORE:

Q. Good morning, Dr. Phinney.

A. Good morning.

(Whereupon, Phinney Exhibit 1, declaration in support the party's review of U.S. Patent 9737154 was hereby marked for identification, as of this date.)

Q. Dr. Phinney, have you seen this document before?

J. PHINNEY

A. Yes.

Q. What is this document?

A. This is my declaration in support of the party's review of U.S. Patent 9737154.

Q. Did you prepare this document?

A. Yes.

Q. Just take a look at the introduction that begins on page 1 of this document.

A. I'm there.

Q. So you're here as an expert witness; are you not?

A. Yes.

Q. Paragraph 1 states you're a principal engineer at Exponent?

A. Yes.

Q. What is Exponent?

A. Exponent is a scientific and engineering consulting firm. We have approximately a thousand employees, but we assist clients with different kinds of technical problems that they have.

Q. What percentage of your work is legal?

A. I'd say about 50 percent.

J. PHINNEY

Q. 50?
A. Yes.
Q. And the other 50 percent is of what nature?
A. It's engineering work, particularly helping clients understand the cause of failure of their products or assisting them with calculating things like electromagnetic.
Q. What percentage of your current work is related to fluid dynamics?
A. I'd say just this litigation, so right now maybe 10 percent.
Q. Ten percent. About how many hours have you worked on this litigation?
A. I'm going to guess it was about 250.
Q. Was all that in 2019?
A. No.
Q. Which years did that work happen?
A. I recall -- I was definitely working on this or the related district court matter one year ago, approximately, so October 2018.
Q. Any other work that you're currently doing in pneumatic systems --
A. No.

J. PHINNEY

Q. -- or hydraulics?
A. No.
Q. Looking at your qualifications on page 2 of this document, it says you worked on the Laser Interferometric Gravitational Wave Observatory.

What specifically was your work related to in that experiment?

A. So I had worked on the hydraulic power supply for the experiment in order to handle the outer stage isolation of the experiment, which was itself in a vacuum.
Q. Outer stage isolation, could you explain that a little more?
A. Yes. This is an experiment that is designed to be in an inertial frame of reference, and that means it needs to reject movements of the earth with respect to an inertial frame.

So, for instance, seismic, the motions of the earth need to be detected, and if they go left, the experiment needs to push right to counteract them and sort of remain in what I'm calling this inertial frame of reference. One will just be, you might say truly stellar.

J. PHINNEY

Q. Your work was related to the control of the pneumatic system?
A. It involved a pneumatic system and a hydraulic system. The main working fluid for the actuators, which are these actuators around the experiment that would move the experiment for -- the working fluids there was this mineral oil, so that was a hydraulic system, but it also included a pneumatic component, because one way I created a source of pressurized hydraulic fluid for the experiment was with a pneumatic control system and a pressurized volume of TRINYTE (phonetic).
Q. Did that have any relation to traffic safety?
A. That was not related to traffic safety.
Q. Did it have any relation to trucking, generally?
A. I wouldn't say that it had a general relationship to that, no.
Q. Did it have any relation to biomedical devices?
A. I'd say, no.
Q. Or measurement of blood pressure?

J. PHINNEY

A. No.
Q. Did it have any relation to inflatable beds?
A. I would say for all of these where I'm answering, no, this is a-- it's not a scientific experiment, so it's a physics experiment, ultimately.

So apart from the principles of the pneumatic and the hydraulic and fluid control systems, I don't think there is a relationship.

Q. Thank you. Dr. Phinney, in paragraph 11, you list a number of cases and legal matters in which you were involved. Is this a complete list of your engagements in the legal environment?
A. No. I think this would be the cases in which I offered testimony at the time when I submitted this report.
Q. Dr. Phinney, has a court ever found your testimony to be unreliable?
A. I don't believe so.
Q. Dr. Phinney, have you ever made a mistake in your analysis in your reports?
A. In my analysis, I'm not aware of

J. PHINNEY

that. You know, I have had typos, but I'm not aware of a mistake in any report.

Q. Were any of these cases related to pneumatic systems?

A. The -- number N there, the Westinghouse air brake case, that was related to air brakes for trains, which is a pneumatic system.

Q. Would you say that that's related to transportation safety?

A. Yes. I think that's a fair characterization, but that's --

Q. Thank you.

A. Not just that, but I think that's part of it that's related to.

Q. Is it related to trucking?

A. I give the same sort of answer that I gave previously. Not -- it's not really, apart from the principles of the operation in a pneumatic control system, for instance.

Q. Is it related to measurement of blood pressure?

A. Again, the same kind of answer, no, with that qualification.

J. PHINNEY

Q. Inflatable beds?

A. The same answer, no, with that qualification.

Q. Dr. Phinney, how many patents are you an inventor of?

A. I think the answer is two. It may be three. I don't see where I wrote that here.

Q. Are any of your patents related to pneumatics?

A. No.

Q. Are any of them related to hydraulics?

A. No.

Q. Back to paragraph 5, when you were working on the LIGO experiment, were you employed by MIT?

A. I think that's a fair way to say it. It's an assistantship, so you're paid through a laboratory, which in this case was a collaborative endeavor between Cal Tech, MIT, Stanford.

Q. Were you a student at MIT at the time?

A. Yes.

J. PHINNEY

Q. Was this during your PhD?

A. Yes. That's fair. It was after I got my master's, but before I got my PhD.

Q. Dr. Phinney, what was your dissertation topic?

A. It was-- for the PhD?

Q. Um-hum.

A. It related to power electronics.

Q. So your work in the LIGO experiment didn't relate to your research at MIT for your PhD?

A. That is correct. One thing, I'm sorry, if I can clarify, you asked what my PhD was about. My PhD also included some aspects of electric mechanical conversion.

Q. Thank you. While you were working on the LIGO experiment, how much of your time was spent in your research at MIT versus how much of your time was spent working on the hydraulics and pneumatics of the LIGO experiment?

A. It was all LIGO. For that time, I was working on that constantly, apart from taking classes.

Q. What percentage of your time did your

J. PHINNEY

classwork take?

A. In the summer, it took no time, and during the school year, I'd say about 50 percent.

Q. How long did you work on the LIGO experiment in terms of months?

A. I think about 12 months.

Q. Okay, so you would say out of that 12 months, three quarters of it was 50 percent time, and the other quarter was a hundred percent; is that a reasonable estimate?

MR. TUTTLE: Objection to form.

A. That -- it's -- that seems reasonable, yes. It was for that time I spent a -- I'd say the majority of my time on LIGO.

Q. Okay. Then, Dr. Phinney, is it your opinion that you have at least one year experience with hydraulics, fluid control and pneumatic air bed controllers?

A. I think I have that or the equivalent, yes.

Q. Didn't you just testify that it was substantially less than a year, and your only experience with pneumatics was the LIGO experiment?

J. PHINNEY

A. I think the experience I had is, you know, I think is equivalent to that amount of experience.

Q. Thank you. So starting at paragraph 19 in your declaration, you have a number of claim terms that have been offered here for construction. Do you see those?

A. Yes.

Q. Do you know if the board adopted any of those?

A. I don't believe the board did is my recollection.

Q. Your opinions in your declaration are based on the claim constructions that you've offered here; are they not?

A. I would say that they are, but that my opinions wouldn't change with other claim constructions that have been offered in this case.

Q. Specifically, paragraph 20, the first sentence, doesn't it say that you've applied the constructions below?

A. Yes.

Q. That means the constructions in

J. PHINNEY

paragraphs 21 through 26; does it not?

A. Yes, but as I --

Q. Thank you. Okay, let's take a look at -- I'm going to be handing you another document.

(Whereupon, Phinney Exhibit 2, petition for interparty's review of patent 9737154 was hereby marked for identification, as of this date.)

Q. Dr. Phinney, have you seen this document before?

A. Yes.

Q. What is this document?

A. This is the petition for interparty's review of patent 9737154.

Q. Did you draft this document?

A. No.

Q. Were you involved in drafting this document?

A. No.

Q. Are you aware that this document cites Exhibit 1, your declaration?

A. Yes. That's my understanding.

Q. Do you agree with this document?

J. PHINNEY

MR. TUTTLE: Objection, form.

A. Yes. I believe so.

Q. Take a look at page 4. Under D1, first sentence, do you see where it says, "Mahoney is directed to a system and method for adjusting the pressure in an inflatable object such as an air bed"?

Do you see that?

A. Yes.

Q. Is that how you characterized Mahoney?

A. I can check.

Q. Would you, please.

A. I'll look at Exhibit 1, so, for instance, in my paragraph 70, I have a similar sentence, but I say that the '154 patent is directed to a method for adjusting air pressure within an air bed.

Q. Thank you. Do you agree that the patent is directed to air beds and not generally inflatable objects?

A. It seems to be what I'm saying here, that the '154 patent is directed to adjusting air pressure within an air bed.

J. PHINNEY

Q. Thank you. So let's go back to your background for just a moment. That will be back in Exhibit 1.

Any of your time in your professional career other than this casework related to inflatable beds?

MR. TUTTLE: Objection to form.

A. I have experience related to different types of blowers and flow control systems that I think would be applicable to inflatable beds.

Q. Have you worked with inflatable beds before?

A. Without -- not working with inflatable beds, but I think related to, because it's a similar type of application.

Q. What application is that?

A. Related to CPAP systems, for instance.

Q. Do the CPAP systems show up in your CV here somewhere?

A. No. I don't believe I've testified about them.

Q. What is your knowledge of CPAP

DOCKET ALARM

Explore Litigation Insights

Docket Alarm provides insights to develop a more informed litigation strategy and the peace of mind of knowing you're on top of things.

Real-Time Litigation Alerts

Keep your litigation team up-to-date with **real-time alerts** and advanced team management tools built for the enterprise, all while greatly reducing PACER spend.

Our comprehensive service means we can handle Federal, State, and Administrative courts across the country.

Advanced Docket Research

With over 230 million records, Docket Alarm's cloud-native docket research platform finds what other services can't. Coverage includes Federal, State, plus PTAB, TTAB, ITC and NLRB decisions, all in one place.

Identify arguments that have been successful in the past with full text, pinpoint searching. Link to case law cited within any court document via Fastcase.

Analytics At Your Fingertips

Learn what happened the last time a particular judge, opposing counsel or company faced cases similar to yours.

Advanced out-of-the-box PTAB and TTAB analytics are always at your fingertips.

API

Docket Alarm offers a powerful API (application programming interface) to developers that want to integrate case filings into their apps.

LAW FIRMS
Build custom dashboards for your attorneys and clients with live data direct from the court.

Automate many repetitive legal tasks like conflict checks, document management, and marketing.

FINANCIAL INSTITUTIONS
Litigation and bankruptcy checks for companies and debtors.

E-DISCOVERY AND LEGAL VENDORS
Sync your system to PACER to automate legal marketing.