

UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE PATENT TRIAL AND APPEAL BOARD

SHENZHEN XINZEXING E-COMMERCE
CO., LTD.,

Petitioner,

vs.

SHENZHEN CAR KU TECHNOLOGY CO.,
LTD.,

Patent Owner.

CERTIFIED COPY

Case IPR2024-00222

Patent 9,643,506 B2

DEPOSITION OF

DAVID SHAWN RICKETTS, PH.D.

VIA ZOOM VIDEOCONFERENCE

JANUARY 16, 2025

Reported by:
COLLEEN M. PETERMAN
CSR 7882
Job No. 25-146590
FR Ref. 56964-0002IP1

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CO., LTD.,)

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8 LTD.,)
9)
Patent Owner.)
_____)

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15 DEPOSITION OF DAVID SHAWN RICKETTS,
16 PH.D., a witness herein, taken on
17 behalf of the petitioner via Zoom
18 videoconference at 9:11 a.m. on
19 Thursday, January 16, 2025, before
20 Colleen M. Peterman, CSR 7882.
21
22
23
24
25

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I N D E X

WITNESS: DAVID SHAWN RICKETTS, PH.D.

EXAMINATION BY	PAGE
MR. HAWKINS	5
MR. PATARIU	151
MR. HAWKINS	158

E X H I B I T S

EXHIBIT	DESCRIPTION	PAGE
(No Exhibits Marked)		

1 VIA ZOOM VIDEOCONFERENCE

2 JANUARY 16, 2025

3
4 THE REPORTER: My name is Colleen Peterman. I
5 am a Certified Shorthand Reporter in the state of
6 California. My license number is 7882.

7 Would the witness please raise your right
8 hand.

9
10 DAVID SHAWN RICKETTS, PH.D.,
11 HAVING BEEN DULY ADMINISTERED AN
12 OATH BY THE REPORTER, WAS EXAMINED
13 AND TESTIFIED AS FOLLOWS:

14
15 EXAMINATION

16
17 BY MR. HAWKINS:

18 Q. Hello. Thanks for being here today. Can you
19 please state your full name for the record.

20 A. David Shawn, S-H-A-W-N, Ricketts,
21 R-I-C-K-E-T-T-S.

22 Q. And I've been referring to you as
23 Dr. Ricketts.

24 Do you prefer Professor instead or --

25 A. Dr.'s fine.

1 Q. Great. Okay. In what city and state do you
2 live?

3 A. I live in Apex, A-P-E-X, North Carolina.

4 Q. And where do you currently work?

5 A. I'm a professor at North Carolina State
6 University.

7 Q. Great. Do you understand that you're under
8 oath today?

9 A. I do.

10 Q. And is there any reason you cannot give
11 truthful and accurate testimony today?

12 A. No.

13 Q. Okay. I'll be asking you some questions today
14 focusing on the declaration you submitted in
15 IPR2024-00222. We'll try to take breaks at regular
16 intervals. If you need a break, just let me know, and
17 I'll do my best to finish up that line of questioning so
18 we can get to the break.

19 Just so you know, during the breaks, please
20 note your conversations with opposing counsel here may
21 not be protected, according to the Patent Office Trial
22 Practice Guide. So try to avoid substantive
23 conversations.

24 There will be a time when we will say no
25 further questions, and at that point in time, the

1 cross-examination is over, and you could talk about
2 substance. But otherwise, during breaks, talk about the
3 weather or sports or something. But whatever you do say
4 about substance wouldn't be protected, and I just want
5 to make you aware of that.

6 So just to be clear, when I refer to the IPR
7 today, I mean IPR case No. 2024-00222.

8 Do you understand that?

9 A. I do.

10 Q. And is it okay that when I refer to what I'll
11 call the '506 patent, that I'm referring to the patent
12 challenge in this IPR proceeding? It's U.S. patent
13 No. 9,643,506.

14 Does that make sense to you?

15 A. I understand, yes.

16 Q. Great. So in this proceeding, you submitted a
17 declaration that's labeled as Exhibit 2001. I'm sharing
18 that on the screen now.

19 Is that correct?

20 A. That is correct.

21 Q. And did you draft the text of that
22 declaration?

23 A. I'm the author of the declaration. So I was
24 involved completely in the declaration, and it is
25 representative of my opinions in the case.

1 Q. And so this declaration was executed on
2 October 30th, 2024.

3 When were you first engaged by the patent
4 owner to provide your opinions in this matter?

5 A. I don't know the -- I don't know the date off
6 the top of my head.

7 Q. Was it later than September?

8 A. I would imagine it would be sometime after the
9 petition was filed and well before my declaration was
10 prepared.

11 Q. Okay. And do you recall if it was after this
12 IPR was instituted?

13 A. I don't recall, no.

14 Q. I understand. And can you please describe how
15 you prepared for today's deposition.

16 A. I reviewed my declaration and references
17 therein.

18 Q. Okay. And as part of your preparation, can
19 you please state the name of each person that you
20 communicated with during that preparation.

21 A. Yes. I had a meeting with counsel, Kevin
22 Patariu.

23 Q. Okay. And as part of your preparation for
24 today's deposition, did you conduct any independent
25 searches, such as searches on the internet?

1 A. Could you repeat your question.

2 Q. As part of your preparation for today's
3 deposition, did you conduct any independent searches,
4 such as searches on the internet?

5 A. My preparation was primarily with my
6 declaration and references. I don't recall anything
7 specific outside of that.

8 Q. Great. So I will turn now to paragraph 1 of
9 your declaration. I'm showing that on the screen.
10 Hopefully it's sizable enough for you. If you'd like to
11 refer independently to the similar PDF, please feel
12 free. It's Exhibit 2001.

13 And in paragraph 1, you mention the patent
14 owner is Shenzhen Carku Technology Co., Ltd.

15 My question is, have you ever worked for this
16 entity prior to being retained in this matter?

17 A. I'm familiar with the name Carku, and I have
18 done previous cases with entities with the name Carku.
19 I don't know specifically Shenzhen Carku Technology,
20 whether that's the exact same entity precisely, no.

21 Q. And can you describe those cases that involved
22 an entity named Carku?

23 A. I believe there was several ITC cases. And
24 then I believe that was primarily the ones that involved
25 Carku.

1 Q. Do you have an ownership interest in any of
2 the Carku entities?

3 A. No, I do not.

4 Q. Paragraph 3 of your declaration, shown on the
5 screen here, mentions that you're being compensated for
6 your time spent here.

7 What's the hourly rate that you charge the
8 patent owner for your time in this proceeding?

9 A. \$650 per hour.

10 Q. And I'm going to skip down now to paragraph 31
11 of your declaration. So paragraph 31 mentions the
12 materials that you reviewed.

13 Did you, in addition to what's listed here,
14 review the IPR petition that was filed in this
15 proceeding when gathering your opinions for this
16 declaration?

17 A. I would have to check the references. But I
18 believe I probably cite the petition as references in my
19 declaration. So that would be something I'd reviewed.

20 Q. Oh. Yes, I see. And yes. You did cite to
21 the IPR petition. So I see what you mean in there by
22 the references in here.

23 Okay. So that would mean also then that you
24 reviewed the declaration of Dr. Woods, as Exhibit 1003.
25 That's cited in the petition. I believe that's also

1 cited in your declaration here.

2 A. Yes. I have reviewed that and, where
3 appropriate, referenced that in my declaration.

4 Q. And when you reviewed the testimony of
5 Dr. Woods, did you understand what he was saying in his
6 positions?

7 A. I don't recall any --

8 MR. PATARIU: Object to form.

9 THE WITNESS: I don't recall anything
10 specifically I did not understand.

11 BY MR. HAWKINS:

12 Q. So we'll keep proceeding down. Let's see. On
13 the next page, paragraphs 34 to 37, you're discussing
14 some legal principles that you were informed about. And
15 I have a question.

16 In paragraph 36, you mention "Under claim
17 differentiation, there is an especially strong
18 presumption that an independent claim does not require a
19 limitation that is the only meaningful difference
20 between that claim and its dependent claim."

21 Can you please explain your understanding of
22 what it means that the limitation in question is not
23 present in the independent claim.

24 A. I'm sorry. Could you repeat your question.

25 Q. Sure. So the first sentence of paragraph 36,

1 it mentions a presumption that the limitation in
2 question is not present in the independent claim.

3 Can you please explain your understanding of
4 what it means when the limitation in question is not
5 present in the independent claim.

6 A. So as I state in the paragraph 36, so "I
7 understand that the presence of a dependent claim," so
8 that there is a dependent claim, that adds a limitation.

9 So a dependent claim that's adding an
10 additional limitation gives rise to the presumption that
11 the limitation that it adds is not present in the
12 independent claim, meaning the limitation is put forth
13 in a dependent claim because it doesn't exist per se in
14 the original independent claim. It's a more limiting --
15 let me rephrase that. It is a -- adds a particular
16 limitation.

17 Q. And so just so I'm clear on what you said, the
18 independent claim should be understood to not have that
19 limitation; is that correct?

20 A. If there's a dependent claim that provides an
21 additional limitation, that should be an additional
22 limitation to the independent claim. Otherwise -- it
23 shouldn't be the same as the independent claim. It
24 should be a limitation from the independent claim.

25 Q. I think I understand what you're saying. So

1 maybe if we can just start with a really simplistic
2 example, and then that way we can actually put some
3 structure on this.

4 So let's say there's a claim that says a car
5 comprising headlights to illuminate a road. That's
6 claim 1. And then claim 2 says the car in claim 1
7 wherein the headlights are configured to output high
8 beams to illuminate the road.

9 Claim 1, when you're just looking at a car
10 comprising headlights to illuminate a road, does that
11 include cars that do not have headlights configured to
12 output high beams?

13 MR. PATARIU: Objection. Form.

14 THE WITNESS: So just to review, the
15 independent claim is a car that has lights to illuminate
16 the road?

17 BY MR. HAWKINS:

18 Q. Uh-huh.

19 A. And then the dependent claim is those lights
20 comprising, I guess -- what did you say, again?

21 Q. The headlights are configured to output high
22 beams to illuminate the road.

23 A. The lights are configured to output high
24 beams.

25 Q. My question is, now you have this -- there is

1 a car that has headlights but no high beams.

2 Does that fall within the scope of claim 1?

3 MR. PATARIU: Objection. Form.

4 THE WITNESS: Looking at claim 1 -- I'll pause
5 here. Using the hypothetical claim 1 you've presented
6 of a car with lights to illuminate the road, a car that
7 has lights to illuminate the road would meet that
8 limitation. If it had high beams or low beams, if those
9 lights illuminated the road, it would meet that
10 limitation in the example that you're giving.

11 BY MR. HAWKINS:

12 Q. That makes sense. I understand now. Thanks
13 for clarifying that.

14 Scroll down to paragraph 66 of your
15 declaration. This is on page 24 of Exhibit 2001. So
16 please refer to paragraph 66 of your declaration, where
17 you state, at the beginning, "A POSITA" -- that's
18 P-O-S-I-T-A -- "would understand that through these
19 disclosures."

20 Do you see that part of paragraph 66?

21 A. I do, yes.

22 Q. I'd like to clarify what you mean by the
23 phrase "these disclosures." So if you look immediately
24 above, for example, at paragraph 65, you cite to the
25 '506 patent. It's Exhibit 1001, at column 7, lines 30

1 to 39.

2 Is that "these disclosures" that is then
3 talked about in paragraph 66?

4 A. So I believe paragraph 66 is in the
5 Section VI A, which is an overview of the technology.
6 Section A is of the '506 patent. So I discuss broadly
7 the disclosures of the patent. I have multiple
8 citations of the different parts of the patent there.

9 And so in 66, a POSITA would understand that
10 through these disclosures, he's referring to the
11 disclosures that I just had prior in that Section VI A,
12 in paragraphs 60 to 65.

13 Q. So it's not the disclosure in column 7,
14 lines 30 to 39, alone. Rather, it's multiple citations
15 to other parts of disclosures, in addition, in
16 paragraphs 60 to 65. That is how you're reaching the
17 conclusion in paragraph 66 based upon these disclosures.

18 MR. PATARIU: Objection. Form.

19 BY MR. HAWKINS:

20 Q. I'll rephrase that. That's a long question.

21 It's not the disclosure in column 7, lines 30
22 to 39, alone. Rather, it's the other disclosures cited
23 above it.

24 MR. PATARIU: Objection. Form.

25 THE WITNESS: As I said before, paragraphs 60

1 to 65 represent the overview. It's a multiple citation.
2 And so from these disclosures described in those
3 paragraphs, which would include column 7, 30 to 39, but
4 is the other citations above it, that is how I come to
5 the understanding of what a POSITA would understand.

6 BY MR. HAWKINS:

7 Q. So if someone considered column 7, lines 30 to
8 39, and Figure 3 alone, in isolation, none of the other
9 disclosures, would they still reach the same conclusion
10 you reach in paragraph 66?

11 MR. PATARIU: Objection to form.

12 THE WITNESS: So the citation in paragraph 65,
13 which is citing column 7, 30 to 39, cites that the '506
14 discloses at the direction of the user, the
15 microcontroller can selectively enable 19, 12, and 5
16 outputs to supply a first current for a particular
17 instrument connected to the charger. And so that
18 citation is a citation in the '506 for that
19 functionality.

20 As I said before, in paragraph 66, my
21 reference to disclosures is the disclosures in
22 paragraphs 60 through 65.

23 BY MR. HAWKINS:

24 Q. Yes. I understand that part. Now I want to
25 ask specifically what if you didn't have all of those

1 disclosures. So here's the question.

2 If you considered only column 7, lines 30 to
3 39, and its Figure 3, those two things in isolation
4 alone, nothing else, would you still reach the same
5 conclusion about the four operating modes in
6 paragraph 66?

7 A. I don't believe I've really thought about that
8 citation exclusively, separate from the rest. I've
9 considered the patent as a whole and the disclosures in
10 the patent. So I haven't really considered that.

11 Q. I'll briefly refer to paragraph 101 real quick
12 just because I want to -- I believe perhaps this might
13 have been considered. And maybe you can correct me
14 where I'm wrong here.

15 So in paragraph 101, you're referring to the
16 elements of claim 1, and on the right side is text that
17 is from a Chinese patent application number. And in
18 particular, if you get to the row that is related to
19 element 1.2, you cite to -- it's on page 44 of your
20 declaration.

21 There's a paragraph where, admittedly, it's
22 not the identical text, but it does have the same
23 description of a user and flexibly select the desired
24 voltage.

25 A. Just a moment.

1 Q. So I just want to make sure we're on -- this
2 Chinese application does not include the text you cited
3 in paragraphs 60 through 64; right?

4 So things in column 4 and column 5, they're
5 not here. So in a way, I -- that's what I'm trying to
6 get at, is the text in column 7 of the '506 patent,
7 lines 30 to 39, it appears you did compare it to claim 1
8 alone, in isolation.

9 And so that's where I would like to -- that's
10 what this exercise was, was text that did not include
11 anything in column 4 or column 5 and saying yes, I
12 consider this in isolation, and I can still get to this
13 conclusion.

14 Is that correct; that you can reach that same
15 conclusion without any of that text in columns 4 and 5?

16 MR. PATARIU: Objection. Form.

17 THE WITNESS: Could you -- there was a lot in
18 that. Could you maybe break it down into a shorter
19 question that I could answer first and then follow
20 along?

21 BY MR. HAWKINS:

22 Q. Yes. I understand. I apologize.

23 So in paragraphs -- let's take paragraphs 62
24 and 63. They're on your screen here.

25 A. Yeah.

1 Q. So there's the parts that are cited. For
2 example, there's column 1, lines 52 to 57. There's no
3 corresponding text in the Chinese application for that.
4 There's text in column 5 and in column 6. This is cited
5 at paragraph 62 of your declaration. That is not in the
6 corresponding Chinese application.

7 There's text at column 5, on line 63. That is
8 not in the corresponding Chinese application. There's
9 text in your paragraph 64. It's at column 6. Two
10 different instances in column 6. That is not in the
11 Chinese application.

12 So what I'm trying to ask is, you reach a
13 conclusion based upon these disclosures in paragraph 66,
14 and what I want to know is, can you reach that same
15 conclusion if you ignore all of the cited disclosures
16 that were in column 1 and column 4 and column 5 and
17 column 6?

18 MR. PATARIU: Objection. Form. Objection.
19 Foundation.

20 THE WITNESS: So maybe I can answer this in
21 pieces as I understood the question.

22 The first piece was in paragraph 101, I'm
23 comparing the text limitation to see if there's support
24 in the original specification in the China patent
25 application number ending in 190.9.

1 And so you pointed to a description at the
2 bottom of page 44 that describes a 19-volt boost output
3 circuit 4, 12-volt output circuit 5, and a DC-to-DC
4 5-volt buck output circuit 6, each of these connected to
5 an MCU.

6 Through the MCU, the microcomputer can
7 control -- by the way, MCU is microcontroller or
8 computer, I think, here -- can flexibly select the
9 desired voltage output to meet the outdoor power supply
10 requirements.

11 And I present that citation from the Chinese
12 specification as support for limitation 1.2, which is
13 "at least one output port coupled to the battery pack,
14 wherein the battery pack is configured to output a first
15 current through one or more output ports of the at least
16 one output port in a first operating mode." So the text
17 in paragraph 101 is presented to show a support between
18 the application and 1.2.

19 And then I think you returned back to
20 paragraph 60 through 65. And specifically -- so first
21 off, 60 through 65 is presenting text from the current
22 specification of the '506. Second, paragraph 66 is
23 saying from the disclosures in paragraphs 60 through 65,
24 one would understand the following.

25 So 60 through 65 is an overview of the '506.

1 Paragraph 101 is comparing the claims to the Chinese
2 patent application ending in 190.9. So that's what's
3 being covered in my declaration in those two sections.

4 BY MR. HAWKINS:

5 Q. Yes. And now my question is, if a person of
6 skill reads only column 7, lines 30 to 39, and looks
7 only at Figure 3 and no other part of the '506 patent,
8 will they reach the same conclusion that there are four
9 operating modes?

10 MR. PATARIU: Objection. Form.

11 THE WITNESS: So once again, paragraph 66 is
12 saying a POSITA would understand through these
13 disclosures, and there's multiple disclosures in this
14 section. Of the output circuits, there's multiple
15 output circuits in the specification that the following
16 configurations or operating modes are possible.

17 BY MR. HAWKINS:

18 Q. So all of these disclosures are needed in
19 order to understand the four operating modes.

20 MR. PATARIU: Objection. Form.

21 THE WITNESS: Well, one reads the
22 specification as a whole to understand what it means.
23 And I believe I've cited, through 60 and 65, several
24 areas that are part of the overview of the '506. And
25 through those, I think a POSITA would understand the

1 following four operating modes are possible.

2 BY MR. HAWKINS:

3 Q. Maybe it's easier just to take it one
4 paragraph at a time. So let's refer to paragraph 61 of
5 your declaration. There you cite to -- well, you cite
6 to a lengthy part of the specification. I'll make it
7 simpler so we don't have to have you read four columns
8 of text.

9 Let's move to paragraph 62. There in
10 paragraph 62, you cite to column 1, lines 52 to 57. You
11 also cite to column 5, lines 1 to 3; column 6, lines 7
12 to 21; and column 6, lines 38 to 52.

13 Is that text important to reaching your
14 conclusion that there are four operating modes in
15 paragraph 66?

16 A. So the citations in column 1, 3, 5, and 6
17 describe first and second operating modes and also
18 protection circuits and overcurrent circuits for first
19 and second operating modes, which is relevant to my
20 analysis in that section.

21 Q. And I'll repeat my question.

22 Is the text in columns 1, 5, and 6 important
23 to reach the conclusion that you reached in
24 paragraph 66?

25 MR. PATARIU: Objection. Form.

1 THE WITNESS: So my citation in paragraph 62
2 is to cite the charger uses the first and second
3 protection circuits, as shown in Figure 1. And so these
4 citations are to areas in the specification that discuss
5 more fully those protection circuits.

6 BY MR. HAWKINS:

7 Q. Now I'm going to actually show Exhibit 1001.
8 This is the '506 patent. I'm going to zoom in on
9 column 7, line 30 to 39, so it's easier to see. So here
10 it is, on this part of the screen. And it starts off
11 with as shown in Figure 3.

12 My question is, if a person of skill in the
13 art read this text alone while looking at Figure 3,
14 would they know there are four operating modes?

15 MR. PATARIU: Objection. Form.

16 THE WITNESS: So the text in column 7, 30
17 to -- I believe it was 39, if I have that number
18 right -- yeah, 39 -- this is describing the multiple
19 DC-to-DC voltage output circuits, and these are part of
20 the first operating mode.

21 And once again, you know, a POSITA would
22 understand from reading the document and the citations I
23 have in 60 through 65 the other parts that are required
24 to -- or that I use; that I think a POSITA would come to
25 make the conclusion in paragraph 66.

1 BY MR. HAWKINS:

2 Q. So that would be this text along with other
3 text helps you to reach the conclusion that there are
4 four operating modes in paragraph 66.

5 MR. PATARIU: Objection. Form.

6 THE WITNESS: As I stated in paragraph 66 and
7 my citations in 60 through 65, there are more citations
8 than just column 7, 30 through 39.

9 BY MR. HAWKINS:

10 Q. And I will return to Exhibit 2001, your
11 declaration. I'm moving on to paragraph 67. Here you
12 describe the additional text of the first operating
13 mode, the second operating mode, and the third operating
14 mode.

15 Regarding the first operating mode, you're
16 relying upon the text cited in column 4 to reach your
17 understanding of what the first operating mode is;
18 correct?

19 MR. PATARIU: Objection. Form.

20 THE WITNESS: I'm sorry. Can you reask the
21 question to make sure I'm responding to the right
22 citation you may have said.

23 BY MR. HAWKINS:

24 Q. Correct. Regarding the first operating mode,
25 the text you cited in column 4 is used to reach your

1 understanding of the first operating mode; correct?

2 MR. PATARIU: Objection. Form.

3 THE WITNESS: So the text in column 4
4 describes working in the first operating mode, and it
5 describes a charger capable of outputting current to one
6 or more ports. Generally column 5. 5, 12, and 19 are
7 listed.

8 And then it says when the portable battery
9 charger 100 is working in the first operating mode, it
10 can output one or more currents. And so that is the
11 text from the column that I've quoted there, and it
12 says, in the text, the first operating mode.

13 BY MR. HAWKINS:

14 Q. My question is, that text is used to reach
15 your understanding of the first operating mode; right?

16 MR. PATARIU: Objection. Form.

17 THE WITNESS: That text describes the first
18 operating mode as an example in the patent.

19 BY MR. HAWKINS:

20 Q. Yes. But do you use it to reach your
21 understanding of the first operating mode?

22 MR. PATARIU: Objection. Form.

23 THE WITNESS: 67 is describing additional text
24 descriptions of modes. And so each one of these bullets
25 is a description of the modes as I believe a POSITA

1 would understand.

2 And the first bullet point, which is citing
3 column 4, is describing a first operating mode. And so
4 that's what that paragraph is doing, is it's describing
5 a first operating mode, and it's citing to the
6 specification that discusses the first operating mode.

7 BY MR. HAWKINS:

8 Q. But you did not use this text at column 4 to
9 reach your understanding of first operating mode?

10 A. This is a first operating mode as disclosed in
11 the specification. So when looking at the
12 specification, this is a first operating mode.

13 Q. I think we're two ships passing in the night.
14 I'm not asking what does it describe. I'm asking -- so
15 you reached a conclusion, and I think the board would be
16 very interested in knowing, well, what did you rely upon
17 to reach that conclusion? Rather than just pulling it
18 out of thin air, we assume you relied upon something.

19 And so my question specifically about
20 paragraph 67 is, the text you cited in column 4 is
21 relied upon to reach your understanding of first
22 operating mode; correct?

23 MR. PATARIU: Objection to form.

24 THE WITNESS: The text in the first bullet, in
25 citation to column 4, is describing a first operating

1 mode, and it is describing a first operating mode in how
2 I think a POSITA would understand a first operating
3 mode. And this is just citing the text to say, you
4 know, here's the disclosure of a first operating mode.
5 The first operating mode outputs power. And so this is
6 describing that piece of the first operating mode.

7 And then the second paragraph describes more
8 disclosure in the second operating mode. And the third
9 paragraph bullet point describes the third operating
10 mode.

11 And my conclusion for what a POSITA would come
12 from was -- is from each one's describing the three
13 modes and the understanding they come from from those
14 disclosures of the three modes.

15 BY MR. HAWKINS:

16 Q. Is there a fourth bullet point in paragraph 67
17 that describes the fourth operating mode?

18 A. There's only three bullet points in 67,
19 describing the first, the second, and the third. In my
20 table previously, the fourth is just a logical
21 completion of the Boolean possibilities of the different
22 outputs.

23 Q. So referring back to paragraph 66, you listed
24 a third operating mode, labeled as 3 in the table.

25 Do you see that?

1 A. I do.

2 Q. In this third operating mode, neither the
3 first current, the 5-volt output, nor the second current
4 for jump-starting the car is inhibited; right?

5 A. The table shows that both 5 volts and the high
6 current are enabled, and I would consider being enabled
7 as not being inhibited.

8 Q. If you have a device that is operating in this
9 third operating mode, does it fall within the scope of
10 claim 1?

11 MR. PATARIU: Objection. Form.

12 THE WITNESS: If you look at the three modes
13 that I described in paragraph 67, the specification
14 describes a first mode, second mode, and a third mode.
15 And because they're described separately, I'm to
16 understand that they are three different modes.

17 And so a POSITA would look at understanding a
18 first mode, a second mode, and a third mode and look to
19 understand what they mean in the context that there are
20 three modes and what each of the modes are described as.

21 Now, I don't believe I specifically answered
22 your question. So maybe you can reask so that I can
23 complete the answer more thoroughly.

24 BY MR. HAWKINS:

25 Q. Sure. If you have a charger that's operating

1 in this third mode, does it fall within the scope of
2 claim 1?

3 MR. PATARIU: Objection to form.

4 THE WITNESS: Looking at the claims as a
5 whole, claim 3 describes this third mode that has both
6 currents flowing. In the specification, it describes
7 three modes. One mode has current flowing in one. The
8 second mode has current flowing in the other. And the
9 third mode has the currents flowing together.

10 So likewise, in claim 1, I would understand
11 the first mode to be allowing current to flow in the
12 first mode devices and not the second, the second mode
13 to allow current to be flowing in the second mode and
14 not the first. Otherwise, the claims would be
15 inconsistent with one another.

16 BY MR. HAWKINS:

17 Q. So if you have a charger that's operating in
18 the third mode, it falls within the scope of claim 3 but
19 not claim 1; is that correct?

20 MR. PATARIU: Objection to form.

21 THE WITNESS: Claim 3 is dependent upon 1. So
22 claim 3 is claim 1 with claim 3 appended onto it. So
23 I'm not sure I understand that piece 'cause claim 3
24 would include claim 1 because it's dependent upon it.
25

1 BY MR. HAWKINS:

2 Q. Sure. I'll repeat it again.

3 If you have a charger device operating in the
4 third mode, does it fall within the scope of claim 1?

5 MR. PATARIU: Objection to form.

6 BY MR. HAWKINS:

7 Q. You know what? I'll strike the question.

8 Maybe I'll make this -- we'll start smaller.

9 If you have a charger that's operating in the
10 third mode, does it fall within the scope of dependent
11 claim 3?

12 MR. PATARIU: Objection to form.

13 THE WITNESS: I think I understand your
14 question, but just to be more precise, if you have a
15 device that's operating in a third mode, outputting a
16 first and a second current simultaneously, and also a
17 first and second protection circuit are active, as well
18 as the other limitations that are in claim 1, then you
19 would practice claim 3.

20 BY MR. HAWKINS:

21 Q. Would that same device practice claim 1?

22 MR. PATARIU: Objection to form.

23 THE WITNESS: I think what you're asking is,
24 if a device is outputting current to the first operating
25 mode devices while simultaneously delivering current to

1 the second operating mode outputs, would that meet
2 claim 1 alone? Is that a correct understanding of your
3 question?

4 BY MR. HAWKINS:

5 Q. Yes.

6 MR. PATARIU: Objection to form.

7 THE WITNESS: It would not, in that claim 3
8 describes the third mode as a limitation or a
9 difference, and so if -- it is describing a device
10 that's different than in the first and second mode -- or
11 I'm sorry -- than is described in claim 1, which is just
12 a first mode or a second mode.

13 BY MR. HAWKINS:

14 Q. So that device would practice claim 3 but not
15 claim 1.

16 MR. PATARIU: Objection. Form.

17 THE WITNESS: I think we need to be clear. I
18 understand you're simplifying the example.

19 But if you had a device that practiced all of
20 3, so simultaneous output of the first current to the
21 first and second operating modes, and both protection
22 circuits working, does that meet claim 1? It meets
23 claim 1 as it's with claim 3, but the first mode and the
24 second mode would not have simultaneous current because
25 that's required in claim 3.

1 BY MR. HAWKINS:

2 Q. Would that same device meet claim 1 alone?

3 MR. PATARIU: Objection to form.

4 THE WITNESS: From the specification in the
5 claims, if a device outputted current simultaneously,
6 the first outputs in a first output mode, operating
7 mode, and second operating mode simultaneously, that
8 would not meet claim 1. Otherwise, claim 3 would not
9 have any relevance as a dependent claim.

10 BY MR. HAWKINS:

11 Q. Please refer to paragraph 74 of your
12 declaration. Here we're describing a claim construction
13 for the first operating mode. The end of your claim
14 construction in paragraph 74 requires that the output of
15 the second current must be inhibited.

16 What do you mean by "inhibited"?

17 A. As there's -- there's three operating modes:
18 The first, the second, and the third. In the second
19 operating mode, the second current -- the battery pack
20 is configured to output a second current capable of
21 starting a vehicle engine.

22 When I describe a first operating mode, it is
23 requiring that the battery pack is configured to output
24 a first current through one or more of the outputs and
25 is not -- "inhibited" is it's not configured to output a

1 second current for starting a vehicle.

2 Q. So in an example mentioned in the '506 patent,
3 the second current can be inhibited when the fuse is
4 blown; is that correct?

5 A. That is correct. If the fuse is blown, the
6 current is inhibited from the high-current, 12-volt
7 output 9.

8 Q. And during this configuration, when the fuse
9 is blown, that means that the second charger no longer
10 has the second current path to output the jump starter
11 current; right?

12 MR. PATARIU: Objection to form.

13 THE WITNESS: I'm sorry. Could I ask you to
14 rephrase? You used the word "charger," and I wasn't
15 sure --

16 BY MR. HAWKINS:

17 Q. Oh. I'm sorry. The preamble of claim 1 says
18 a charger. So that's why I'm just using the word
19 "charger." So I will rephrase.

20 During this configuration, when the fuse is
21 blown, that means that the claim charger no longer has
22 the second current path to output the jump starter
23 current; correct?

24 MR. PATARIU: Objection to form.

25 THE WITNESS: I apologize. Could you just

1 repeat the last part of your question.

2 BY MR. HAWKINS:

3 Q. Sure. During this configuration, when the
4 fuse is blown, that means that the claim charger no
5 longer has the second current path to output the jump
6 starter current; correct?

7 MR. PATARIU: Objection to form.

8 THE WITNESS: When the second protection
9 circuit fuse is blown for an overcurrent condition,
10 current cannot flow out of that second output.

11 BY MR. HAWKINS:

12 Q. And I just want to be clear here.

13 That means that there is no second current
14 path; correct?

15 MR. PATARIU: Objection. Form.

16 THE WITNESS: After the second protection
17 circuit has an overcurrent and the fuse is blown,
18 there's not a path for current to flow out of the device
19 on the second output. The second operating mode output.
20 Sorry.

21 BY MR. HAWKINS:

22 Q. So according to this claim construction that
23 we're looking at in paragraph 74 and the preferred
24 embodiment about the fuse blowing that we're talking
25 about, my question is this.

1 Is the fuse configured to control the
2 operating mode of the battery pack?

3 MR. PATARIU: Objection. Form.

4 THE WITNESS: Sorry. I was just thinking
5 about your specific words. Could you repeat the last
6 part of your question.

7 BY MR. HAWKINS:

8 Q. Sure. Is the fuse in this preferred
9 embodiment of the '506 patent configured to control the
10 operating mode of the battery pack?

11 MR. PATARIU: Objection. Form.

12 THE WITNESS: The fuse controls the current
13 flow out of the high-current output.

14 BY MR. HAWKINS:

15 Q. So the fuse is either intact or the fuse is
16 blown. There's two states for the fuse. And my
17 question relates to that. You know, depending upon the
18 state of the fuse, some things appear to be controlled.
19 And so that's where my question is.

20 Is the fuse in the '506 patent configured to
21 control the operating mode of the battery pack?

22 MR. PATARIU: Objection. Form.

23 THE WITNESS: So the fuse is placed in series
24 or before the high-current output. So it's placed
25 before. So the circuit hardware is configured so that

1 the fuse is placed between the batteries and the
2 high-current output. And that will allow current to
3 flow or not allow current to flow.

4 BY MR. HAWKINS:

5 Q. What is dictating whether or not you are
6 switching to the first operating mode?

7 MR. PATARIU: Objection. Form.

8 THE WITNESS: So you used the word
9 "switching," and I don't see "switching" in the claim
10 language. I don't know if you could --

11 BY MR. HAWKINS:

12 Q. Sure. I'll rephrase.

13 What structure dictates whether or not you are
14 in the first operating mode?

15 MR. PATARIU: Objection. Form.

16 THE WITNESS: The first operating mode, the
17 battery pack is configured to output a first current
18 through one or more output ports. And my previous
19 citations, I believe in section 60 through -- actually,
20 I think it might be -- I apologize. I don't know the
21 exact citation. Let me just check quickly so I can
22 describe that.

23 BY MR. HAWKINS:

24 Q. Yes. I believe --

25 A. Paragraph 67. Sorry. Paragraph 67.

1 So an example of the embodiment in the patent
2 is the 5, the 12, and the 19, and so a device that's
3 configured to output a first current through these. So
4 the device should be configured to be able to output in
5 the first operating mode, the example, the 5, the 12, or
6 the 19.

7 Q. But in those examples, the fuse is not
8 necessarily blown; correct?

9 A. So this is describing being configured to
10 being able to output these currents. And as I said
11 before, because there's three modes, the third mode
12 describes simultaneous. So the first mode says it's
13 capable of outputting to the one set of output ports.
14 So my understanding is that it's not configured to
15 output to both in the first operating mode.

16 Q. So returning to paragraph 74, when I look at
17 your construction of first operating mode, that only
18 exists in a scenario where the second current has been
19 somehow switched or triggered or controlled to be
20 inhibited.

21 And my question is, is the fuse configured to
22 control this first operating mode?

23 MR. PATARIU: Objection to form.

24 THE WITNESS: So the claim limitation
25 describing a battery pack is configured to output a

1 first current through one or more outputs of at least
2 one of the output ports in the first operating mode, and
3 is it configured to do that when there is no current
4 capable of flowing in the second mode. So that's my
5 understanding of what's required.

6 BY MR. HAWKINS:

7 Q. But paragraph 74 tells us exactly what's
8 required; correct?

9 MR. PATARIU: Objection. Form.

10 THE WITNESS: Maybe it's in the specific
11 words. I'm not -- I'm not seeing a difference in what
12 you're asking about and what I've --

13 BY MR. HAWKINS:

14 Q. Sure. I asked specifically about your
15 construction at paragraph 74, and you turned to the text
16 of claim 1 to answer the question. I am focusing on the
17 text that is in paragraph 74, which does not appear in
18 the claim.

19 So referring to the text in paragraph 74, is
20 the fuse configured to control whether or not the
21 battery is in the first operating mode?

22 MR. PATARIU: Objection. Form.

23 THE WITNESS: Paragraph 74, I'm describing my
24 construction of a first operating mode. It's where
25 the -- portable backup charger wherein the battery pack

1 is configured to output a first current through one or
2 more outputs of at least one or more output ports. It's
3 configured to output power there. And in this first
4 mode, the second current is not allowed to flow. I used
5 the word "inhibited" there in the paragraph.

6 BY MR. HAWKINS:

7 Q. And what controlled that last part of the
8 paragraph?

9 MR. PATARIU: Objection. Form.

10 THE WITNESS: I think I understand the
11 question. So maybe I'll just -- I'll restate that.

12 In the first operating mode, the battery pack
13 is configured to output a first current through one or
14 more output ports of at least one output port, and the
15 output of the second current capable of starting a
16 vehicle engine isn't able to flow.

17 BY MR. HAWKINS:

18 Q. And in the preferred embodiment of the '506
19 patent, what structure dictates that it isn't able to
20 flow?

21 MR. PATARIU: Objection. Form.

22 THE WITNESS: A first operating mode would be,
23 as an example, in Figure 3, the embodiment, when the
24 fuse is blown, current to the high-current output cannot
25 flow, and the charger is configured to output a first

1 current through one or more outputs of at least one
2 output port. In that state, the charger is operating in
3 the first operating mode.

4 BY MR. HAWKINS:

5 Q. In that state, the fuse is blown.

6 A. Just to be clear about the state, we have the
7 charger in the embodiment. The fuse is blown. It is
8 configured to provide power from the battery pack to the
9 output of the first current through one or more output
10 ports of at least the one output port. When that's
11 happening, the charger is operating in the first mode.

12 Q. And in that same exact scenario you just said
13 except the fuse is not blown, rather it's intact, is the
14 battery no longer in the first operating mode?

15 A. The embodiment in the disclosure describes
16 disabling the path that we just described as the first
17 operating mode. So if the fuse is intact and the
18 current outputs to the outputs that were part of the
19 first operating mode are inhibited and current is
20 flowing to only the high-current output, then it would
21 be operating in the second mode.

22 Q. So if the fuse is intact, the first operating
23 mode is not possible, but if the fuse is blown, the
24 first operating mode is possible.

25 MR. PATARIU: Objection to form.

1 THE WITNESS: If the fuse is not blown, the
2 charger can be in the third operating mode and the
3 second operating mode. I believe that's correct, yes.

4 BY MR. HAWKINS:

5 Q. And then, conversely, if the fuse is blown, it
6 can only be in the first operating mode.

7 A. It can be in the first operating mode. It
8 can't be in the second operating mode or the third
9 operating mode.

10 Q. I'd like to refer to paragraph 79 of your
11 declaration here. You're referring to your first
12 operating mode construction and citing to portions of
13 the specification. These bullet points may seem
14 familiar to you. I believe you're citing to portions of
15 column 4, portions of column 5 for your support by the
16 specification.

17 My question is, is the text that you cited in
18 column 4 and column 5 needed to have specification
19 support for your claim construction?

20 A. Sorry. I was just referring -- referencing
21 what you -- the citations you made. Could you repeat
22 the question.

23 Q. Sure. Paragraph 79 says the construction is
24 also supported by the specification.

25 My question is, are the portions of column 4

1 and column 5 that you cited in paragraph 79 needed to
2 have support of your construction by the specification?

3 A. They support the construction by describing
4 the first operating mode, the second operating mode, and
5 the third operating mode. And I think that's what I
6 state in 79, is they're supported by the specification
7 with those cites.

8 Q. Does paragraph 79 cite to column 2 of the
9 '506 patent?

10 A. Paragraph 79 does not have a column 2 citation
11 in it.

12 Q. And does paragraph 79 cite to column 7 of the
13 '506 patent?

14 A. Paragraph 79 does not have a citation to
15 column 7.

16 Q. I'd like to refer to paragraph 77 and 78. And
17 I believe we covered this previously, where you were
18 helping me to gather some clarity on your understanding
19 of the "simultaneously" feature.

20 So on paragraph 78, in the final sentence, you
21 say, in other words, by claiming the third operating
22 mode for the first current and the second current
23 simultaneously. And I believe it should say in the
24 third operating mode -- you have a typo there -- instead
25 of first operating mode. Or no. Maybe -- I'm sorry. I

1 see now. It's a confusing sentence because there's a
2 few commas in there.

3 In other words, by claiming the third
4 operating mode for outputting the first current and the
5 second current simultaneously in claim 3. In the first
6 operating mode of claim 1, the first current can be
7 output, and the outputting of a second current is
8 inhibited. So I think I see.

9 You're trying to say because something's
10 happening in claim 3, that is why the first operating
11 mode requires the second current to be inhibited; is
12 that correct?

13 MR. PATARIU: Objection to form.

14 THE WITNESS: We previously discussed the
15 specification support. Paragraph 77 discusses the
16 claim 3 and the fact that it discloses simultaneous,
17 which would -- a POSITA then would understand if claim 3
18 is current through both, then the first mode is current
19 through one and not the other, and the second mode,
20 operating mode, is current through the second but not
21 the first. Otherwise, claim 1 and 3 would be the same.

22 BY MR. HAWKINS:

23 Q. Correct. And that's the scenario where we
24 discuss that in this simultaneously outputting the first
25 and second currents, having all the other limitations of

1 the charger being in the claim, that falls within the
2 scope of claim 3, but that is different from claim 1;
3 correct?

4 MR. PATARIU: Objection. Form.

5 THE WITNESS: If the device that meets all of
6 the requirements of claim 1 and claim 3 and that is
7 operating with simultaneous current meets 3, if it is
8 operating with simultaneous current and has the first
9 and second protection circuit, I think your question is,
10 does it meet 1 alone. And I think we discussed that
11 earlier; that it would not because it's not operating in
12 a first or a second mode.

13 BY MR. HAWKINS:

14 Q. Yes. We did discuss it previously. Thanks.

15 Paragraph 83. Turn to the second operating
16 mode. This is your construction of second operating
17 mode. Now, here you're saying something quite similar,
18 just flipping first and second operating mode.

19 So I just want to make sure I'm gathering what
20 you mean by "inhibited" here, because in paragraph 83,
21 the requirement for second operating mode under your
22 construction is that the first current must be
23 inhibited.

24 And what do you mean by inhibiting that first
25 current?

1 A. That current is not configured to flow out of
2 the first operating mode output.

3 Q. So in an example where, in the '506 patent, my
4 MCU is set to deliver, I'm going to activate and select
5 my 5-volt USB output and it is ready, it's enabled, but
6 I don't have anything plugged into it, is it inhibited,
7 or is it enabled?

8 MR. PATARIU: Objection. Form.

9 THE WITNESS: Can you ask your question once
10 again.

11 BY MR. HAWKINS:

12 Q. Sure. In the example of the '506 patent, my
13 MCU, the user has selected the 5-volt output to my USB,
14 apparently, and it is enabled and ready, and I just have
15 not plugged anything to that USB connection.

16 In that scenario, is the first current
17 inhibited?

18 MR. PATARIU: Objection. Form.

19 THE WITNESS: The first current is configured
20 to output -- in the example that you used, my USB output
21 is turned on, then that USB output is configured to
22 output a first current through one or more output ports
23 of the at least one output port.

24 So it's configured to output a first current
25 when that's -- I think you used the word "enabled." And

1 so I didn't use the word "enabled," but I think,
2 hopefully, that answered it's configured to.

3 BY MR. HAWKINS:

4 Q. Yes, I understand. I think what you're saying
5 is whether or not the accessory is attached to your 5-,
6 12-, or 19-volt output doesn't dictate whether it's
7 inhibited or not.

8 MR. PATARIU: Objection. Form.

9 THE WITNESS: The statement "inhibited" -- and
10 I believe this is consistent with what we discussed
11 earlier -- is it is not configured. So if all of the DC
12 output ports are not configured to output a current,
13 that's what I mean by "inhibited" in my description of
14 the claim construction for the second operating mode.

15 BY MR. HAWKINS:

16 Q. I understand. So I would like to turn to --

17 MR. PATARIU: If you're switching sections,
18 Counsel, we've been on a record for a bit over an hour.
19 I wonder if we can take our first break.

20 MR. HAWKINS: You know, I'm not, but it's
21 okay. This is a great time to take a break. I agree.
22 So can we take a 10-minute break here to give everybody
23 a chance to get some water. Thank you.

24 MR. PATARIU: Great. Thank you.

25 (Recess)

1 BY MR. HAWKINS:

2 Q. So I want to follow up with our previous
3 conversation after you clarified "inhibited" in terms of
4 it being meant all three of the 5 volt, 19 volt, and
5 12 volt were disabled. And my question there relates
6 to, I believe, your paragraph -- it was actually up
7 above, in the context of paragraph 65. You cited to
8 column 7, where it was talking about the user being able
9 to flexibly select one of those three items.

10 Is that what you mean by an example of the
11 first current being inhibited, is that a user would
12 select an option to disable all three of those?

13 MR. PATARIU: Object to form.

14 THE WITNESS: So I think in paragraph 66, I
15 show the example of operating mode 2, where the user has
16 disabled the 5-volt output.

17 BY MR. HAWKINS:

18 Q. My question is a bit more narrowly tailored
19 than that.

20 Let's say that the user has activated the
21 12-volt output.

22 Is the first current inhibited?

23 MR. PATARIU: Objection to form.

24 THE WITNESS: I'm going to ask for a little
25 bit of a clarification in your question.

1 Is your question the user has disabled the
2 5 volts but has not disabled the 12 volt?

3 BY MR. HAWKINS:

4 Q. Correct. What I'm trying to get at is, prior
5 to the break, you mentioned that all three were
6 disabled. And what I'm trying to understand is, what
7 if, instead of all three being disabled, I simply
8 selected option A and not B and C?

9 Does that make sense?

10 So with that being said, my question, while
11 we're looking at your paragraph 66, you give the example
12 of 5-volt output. I'm concerned that -- what I don't
13 know is, in paragraph 66, in your configuration mode 2,
14 5 volt is disabled by the user, it's unclear at this
15 stage, in this operating state, is it currently
16 outputting the 12 volt, or are all three disabled.

17 So my question is, when you say the first
18 current is inhibited for this example in Figure 3, are
19 you saying that all three are disabled or that just
20 simply any one of them is?

21 MR. PATARIU: Objection. Form.

22 THE WITNESS: I believe in paragraph 83, I
23 state, second operating mode, charger wherein the
24 battery pack is configured to output a second current
25 capable of starting a vehicle engine through an output

1 terminal and outputting a first current through one or
2 more output ports if at least -- of at least one output
3 port is inhibited.

4 So you'd have to have one output port that was
5 inhibited if that was your -- in your first operating
6 mode, if you identify that operating mode as your first
7 operating mode, so if you identified it as 5 volts, as
8 your first operating mode, then that would be inhibited
9 in the second operating mode.

10 BY MR. HAWKINS:

11 Q. But now I have the device in Figure 3, and I
12 have selected 12 volts for my first current output, and
13 it is currently outputting to a 12-volt accessory. And
14 I have connected my jumper cables to a car, and it is
15 ready and enabled with an intact fuse, configured to
16 output that second current.

17 In that state, am I currently in your version
18 of the second operating mode?

19 MR. PATARIU: Objection to form.

20 THE WITNESS: If in the first operating mode
21 you've identified the 5 volts as your first operating
22 output current and you inhibit that 5 volts, that's
23 inhibited, and you're allowing the current to flow out
24 the high-current one, then you would be in your second
25 mode.

1 BY MR. HAWKINS:

2 Q. So the exact same state you just said but
3 simultaneously I'm outputting the 12-volt current to an
4 accessory, the 12-volt first current to an accessory.
5 So you're right. I have inhibited the 5 volt. And I'll
6 say this again. The same state you just said but I am
7 also outputting the first current through the 12-volt
8 accessory.

9 Does that fall within the scope of your second
10 operating mode?

11 MR. PATARIU: Objection. Foundation.
12 Objection to form.

13 THE WITNESS: If you have identified your
14 first operating mode as outputting a current through the
15 12-volt accessory output, the low-voltage output, if
16 that is your first mode and you have your fuse not
17 blown, you're configured to output of that 12 volts and
18 if your fuse is not blown, you're configured to output
19 the high-current path, and that would be then the third
20 mode.

21 If you inhibited, did not allow, current to
22 flow through the 12 volt that you identified as your
23 first mode, then you would be in your second mode.

24 BY MR. HAWKINS:

25 Q. You said several times in that answer if

1 you've identified something as your first current, but I
2 don't see that language in your construction of 83. So
3 it appears -- so, again, I want to take a device. You
4 can just look at Figure 3 of the '506 patent if it will
5 help you.

6 Now I am silent. I will not tell you, as a
7 party or as a charger maker, which one I'm identifying
8 as my first current. But what I have done is I have
9 decided to switch from my 5-volt output to my 12-volt
10 output, and I am now charging there, and simultaneously
11 I'm going to jump-start my car as shown through a second
12 current in Figure 3.

13 But I have not identified in any way which one
14 is my first current. I have not written it down. I
15 have not signaled to anybody. Nobody knows what I have
16 identified.

17 Am I within the scope of your second operating
18 mode?

19 MR. PATARIU: Objection. Foundation.
20 Objection to form.

21 THE WITNESS: I'm not sure how to answer
22 because the communication between the device and the
23 user is not what the claim and the construction is
24 about. It's whether the charger is required to have a
25 first mode and a second mode in claim 1.

1 And so if you have a output path that is -- as
2 you're going -- walking through the claim, I have a
3 first mode. If that first mode is inhibited while
4 you're outputting current to the high current, then that
5 would be the second mode.

6 BY MR. HAWKINS:

7 Q. And so before, when I asked you -- which is I
8 have disabled my 5 volt and I have enabled my 12 volt.
9 The 12 volt is not inhibited. Before, you gave me two
10 answers. One time you said that is not the second
11 operating mode because the 12 volt was, quote,
12 identified as being the first current.

13 In a different time, you said in fact that is
14 not the second operating mode -- I'm sorry -- is the
15 second operating mode because the 5 volt was, quote,
16 identified, end quote, as the first current.

17 My question is, what identifies it?

18 MR. PATARIU: Objection. Foundation.
19 Objection. Form.

20 THE WITNESS: The claim requires at least one
21 output coupled with a battery pack wherein that battery
22 pack is configured to output a first current through one
23 or more output ports. If you have a device that's
24 configured to do that, it's configured to operate in the
25 first mode.

1 If you output current to the high-current
2 mode, you have to have at least one output port that is
3 inhibited. So if you inhibit the 5 volts in your
4 example, you have your 12 volts on but you've inhibited
5 your 5 volts, you'd have at least one output port
6 inhibited from being configured to supply a first
7 current through it.

8 BY MR. HAWKINS:

9 Q. But when I look at the sentence on column 7,
10 line 30 to 39, that you rely upon, where it says the
11 user selects -- I'll just bring that screen back up.
12 I'm looking at Exhibit 1001, column 7, lines 30 through
13 39. And the exact phrase is that "the user can flexibly
14 choose a particular output voltage for the charger,"
15 19 volts, 12 volts, or 5 volts.

16 From what you just said, it sounds like there
17 is always, in all states of this device, at least two of
18 my outputs that are inhibited; correct?

19 MR. PATARIU: Objection. Foundation.
20 Objection. Form.

21 THE WITNESS: I apologize. I didn't follow
22 that logic.

23 BY MR. HAWKINS:

24 Q. So I, as a user, can choose 19 volts,
25 12 volts, or 5 volts; correct?

1 A. Yes. The user can flexibly choose a
2 particular output voltage: 19, 12, or 5.

3 Q. So if I select 19 volts, I have inhibited 12
4 and 5 volts; correct?

5 A. I don't know that I would agree with that
6 wording. You could certainly select 5 volts as an
7 output.

8 Q. Okay. So let's say I select 5 volts as my
9 output. The user has flexibly chosen 5 volts.

10 In doing so, I have inhibited 19 and 12 volts;
11 correct?

12 MR. PATARIU: Objection. Form.

13 THE WITNESS: If you have not chosen -- just
14 one moment. So the user can choose an output voltage to
15 supply current to one of those, for instance, three
16 example voltages they give. And I think you're asking
17 could they choose for a current not to be supplied in
18 the other two. And I think from that description in the
19 column, that would be possible.

20 BY MR. HAWKINS:

21 Q. And what I'm asking is, by definition, when I
22 choose one, am I inhibiting the other two?

23 MR. PATARIU: Objection. Form.

24 THE WITNESS: I don't see that logic in the --
25 in the column.

1 BY MR. HAWKINS:

2 Q. Well, let's walk through the language. It
3 says you may choose a particular output voltage.

4 Is that plural or singular to you?

5 MR. PATARIU: Objection. Form.

6 THE WITNESS: The user can choose -- can
7 flexibly choose a particular output voltage for the
8 charger. I understand that to mean that the user can
9 choose -- elect 5 volts, for instance, elect 12 volts,
10 for instance.

11 BY MR. HAWKINS:

12 Q. So let's take it for an example. The user has
13 chosen 5 volts.

14 When the user chose that, is the 12-volt
15 output inhibited?

16 A. If the user has selected to not have 19 volts,
17 to not -- so this is an output voltage to supply
18 current. So I'm understanding here that the user can
19 flexibly choose any one of those to output current.
20 They chose 5. I don't see anything in the sentence that
21 says 12 is not outputting.

22 Q. Do you see anything in the sentence that says
23 12 is outputting?

24 MR. PATARIU: Objection. Form.

25 THE WITNESS: I think this sentence here,

1 column 7, line 35, is saying that a user can choose, for
2 example, to have 5 volts, 12 volts. 5 and 12 volts.

3 BY MR. HAWKINS:

4 Q. Your last three words were "5 and 12."

5 A. Yeah.

6 Q. Where does the word "and" appear in that
7 sentence?

8 Maybe I'll retract that question and try to
9 clarify. It says you may choose a particular output
10 voltage, singular, and then it gives you three options,
11 separated by an "or."

12 Do you believe that a user can actually select
13 two of those voltages at the same time?

14 MR. PATARIU: Objection. Form.

15 THE WITNESS: I read that sentence, column 7,
16 35, is that a user can flexibly choose a particular
17 output voltage -- 19, 12, or 5 -- to supply current for
18 a particular instrument. Figure 3 shows three different
19 paths for outputs, three different outputs -- 19, 12,
20 and 5 -- the three of those connected to the
21 microcontroller, which a POSITA would understand that
22 the microcontroller can control each one of those.

23 MR. HAWKINS: Can I ask the court reporter to
24 read my last question back.

25 (Record read)

1 MR. PATARIU: Objection. Form.

2 THE WITNESS: From the disclosure in Figure 3
3 and the text here, yes, I do.

4 BY MR. HAWKINS:

5 Q. So let's return to this text here in column 7.
6 And we are now -- somebody has built the charger of
7 Figure 3. They were previously charging something using
8 the 5 volt, and they have disabled that and selected the
9 12-volt option, and they are now charging something
10 through a 12-volt output. And the second line, with the
11 fuse fully intact, is configured to output the second
12 current.

13 Does that embodiment fall within the scope of
14 the second operating mode that you mentioned in
15 paragraph 83?

16 MR. PATARIU: Objection. Form. Objection.
17 Foundation.

18 THE WITNESS: In your hypothetical example,
19 you have inhibited the 5 volts, and the fuse is not
20 blown, so current can flow out of the second port. So
21 my understanding is you would be in a second mode
22 because you have at least one output port of a first
23 mode that is inhibited.

24 BY MR. HAWKINS:

25 Q. And that is true even though the 12 volt is

1 not inhibited and is active; correct?

2 MR. PATARIU: Objection. Foundation.
3 Objection. Form.

4 THE WITNESS: The claim language is "at least
5 one output port."

6 BY MR. HAWKINS:

7 Q. I'll refer to paragraph -- we can skip down to
8 paragraph 93. This is your construction of a current
9 path that is different from that of the at least one
10 output port to the battery pack. So in paragraph 93,
11 the first two lines quote the actual claim language, and
12 then the following part provides your claim
13 construction.

14 My question to you is, if in that first part,
15 where you record in the claim language, after the word
16 "different," in a hypothetical, if you insert the two
17 different words "and separate," so it reads "different
18 and separate from," if you inserted those two additional
19 words into that claim language, would your construction
20 change?

21 MR. PATARIU: Objection to form.

22 THE WITNESS: I'm sorry. I didn't analyze
23 that different text you just presented.

24 BY MR. HAWKINS:

25 Q. I believe you did. So if you can scroll down

1 to -- let's see -- paragraph 97. In column 5, lines 46
2 to 48, you cite to, that uses that phrase. And so I'd
3 like to scroll back up to -- so there's "different and
4 separate from."

5 So if you go to 93, if you say "different and
6 separate from" -- so there's -- we're in a hypothetical
7 now. There's two claims. One of them has the exact
8 language that you quoted in the first two lines of
9 paragraph 93, and the other one has the exact same
10 language, but instead of saying "different from," it
11 just simply says "different and separate from."

12 My question is, do those two claims, only
13 those two words being different, have the same
14 construction that you provided in paragraph 93?

15 MR. PATARIU: Objection to form.

16 THE WITNESS: In paragraph 94, I cite claim 1,
17 that says "having a current path to the battery pack
18 different from that of the at least one output port."
19 So this is the claim language.

20 And the citation that you referenced with
21 respect to column 5, where the specification's
22 describing an embodiment -- the pair of terminals 109
23 provides a current path different and separate from the
24 current path of the battery pack to the output. So
25 that's describing the embodiment.

1 And I'm giving an opinion on the claim
2 language in paragraph 94. And I describe after that,
3 "In other words" -- this is with reference to
4 paragraph 94 -- "In other words, the path the current
5 takes from the output terminals to the battery pack is
6 different than the path the current takes from the
7 output port to the battery pack."

8 And I think that's consistent with the
9 embodiment in the patent.

10 BY MR. HAWKINS:

11 Q. So if the two-word phrase "different from" was
12 instead "different and separate from," that would not
13 change your construction.

14 MR. PATARIU: Objection. Form.

15 THE WITNESS: If they devised a charger at a
16 path that was different and separate from, like the
17 embodiment in the patent, I think that would meet having
18 a current path to the battery pack different from at
19 least the one output port.

20 BY MR. HAWKINS:

21 Q. And so, again, the last part of 93 is actually
22 describing the actual construction.

23 And so what I'm trying to say, just to make
24 sure we're clear, is if the patent owner amended this
25 claim language to add in the two different words,

1 instead of being "different from," said "different and
2 separate from," otherwise the claim is identical in all
3 ways, would that affect the claim construction in
4 paragraph 93?

5 MR. PATARIU: Objection. Form.

6 THE WITNESS: I'll go back to I haven't
7 analyzed the different language for the claim. However,
8 a device that had a current path that was different and
9 separate from would meet the limitation of a battery
10 pack that has a current different -- sorry -- having a
11 current path to the battery pack different from that of
12 at least one port.

13 BY MR. HAWKINS:

14 Q. Would that at all change your construction
15 that says does not overlap?

16 MR. PATARIU: Objection. Form.

17 THE WITNESS: In paragraph 95 and 96, I show
18 the patent figures Figure 1 and Figure 3, and they
19 clearly show two separate paths, and the currents do not
20 overlap.

21 BY MR. HAWKINS:

22 Q. And so the question, again, relates to, if the
23 patent owner opted to amend this claim language to say
24 "different and separate from," rather than merely
25 "different from," would your claim construction about,

1 quote, that does not overlap, end quote, stay the same?

2 A. I'd want to think about it and consider that
3 more.

4 Q. Can you think of any example of where the
5 current path would be different and separate from and
6 not have the same construction that you propose in the
7 bottom of paragraph 93?

8 MR. PATARIU: Objection. Foundation.
9 Objection. Form.

10 THE WITNESS: Sitting right here, I think
11 you're asking if I know of an example that -- what was
12 the specific question you'd asked?

13 BY MR. HAWKINS:

14 Q. Where the current path is different and
15 separate from the second current path.

16 A. I believe the embodiment that is cited in
17 column 7 says -- hold on a moment. I believe I mis- --
18 I may have -- I believe I misspoke here.

19 Q. It was column 5, lines 46 to 48, I believe you
20 cited at paragraph 97.

21 A. Yes. Thank you. Yes. Column 5, 46. The
22 embodiment has a current path that is different and
23 separate.

24 Q. And so that embodiment in column 5, lines 46
25 to 48, is a current path between the output terminals

1 and the battery pack that does not overlap with a
2 current path between the at least one output port and
3 the battery pack; correct?

4 A. I apologize if I'm not getting the nuance of
5 the question.

6 Column 5, 46, embodiment, "output terminals
7 109 provides a current path different and separate from
8 the current path from the battery pack 101 to the output
9 ports 103."

10 In Figure 1, you can see 103 is an output.
11 109 is an output, as I've annotated. In paragraph 95,
12 there's two current paths that are different and don't
13 overlap. So that's an embodiment where the
14 specification itself says the current path is different
15 and separate from. And that's what I've drawn in
16 paragraph 95. And in that example, embodiment, the
17 current path between the output terminals and the
18 battery pack does not overlap.

19 Q. So I don't want there to be any nuance to my
20 question going forward. All I'm trying to understand
21 is -- and for some reason, I can't seem to gather it.

22 I need clarity of, do you believe the two-word
23 phrase "different from" has a different meaning in any
24 way than the four-word phrase "different and separate
25 from," or are they just simply two ways of saying the

1 exact same thing?

2 MR. PATARIU: Objection to form.

3 THE WITNESS: A charger that has a current
4 path that is different and separate from, as example in
5 Figure 1 of the patent, would have nonoverlapping
6 currents and would need the -- having a current path to
7 the battery pack different from the at least one output
8 port. So that's an example, describing that, that would
9 meet the claim limitation.

10 BY MR. HAWKINS:

11 Q. And with that same exact example that you've
12 just said except strike the two-word phrase "and
13 separate," would that also result in the same exact
14 claim interpretation?

15 MR. PATARIU: Objection. Form. Objection.
16 Foundation.

17 THE WITNESS: So once again, I've looked at
18 the claim that's in the patent and analyzed that for
19 construction. With respect to lines 46 through 58, if
20 you deleted "and separate" -- the text specifically
21 identifies output ports 109, 103 in Figure 1. And as
22 I've annotated in my declaration, Figure [sic] 95, those
23 are two different paths that don't overlap.

24 BY MR. HAWKINS:

25 Q. So now setting aside the example in Figure 1,

1 setting aside the example in column 5, focusing
2 exclusively on the text of claim 1, if you look at this
3 claim element, what is not clear to me, and I don't
4 think is going to be clear to the board when they read
5 this, is that from what I'm gathering, you think
6 "different from" has the identical scope and meaning as
7 "different and separate from."

8 This is your chance to tell me if that is not
9 correct.

10 MR. PATARIU: Objection. Form.

11 THE WITNESS: So in my construction, I say
12 "the proper construction for 'a current path to the
13 battery pack different from that of the at least one
14 output port to the battery pack' is 'a current path
15 between the output terminals and the battery pack that
16 does not overlap with a current path between the at
17 least one output port.'"

18 I show support for that construction in
19 Figure 1, annotated, where I show separate,
20 nonoverlapping current paths, and I show support for
21 that in Figure 3, with separate, nonoverlapping current
22 paths. So --

23 BY MR. HAWKINS:

24 Q. I agree you've done that; that you've tried to
25 show that and cite to that. But, again, that's missing

1 my question.

2 You just got done quoting paragraph 93, and as
3 of right now, from what I can tell, I could take your
4 paragraph 93, and right between -- right for the word
5 "different," I could add "and separate."

6 The exact same text of your paragraph 93, and
7 I would add two words into it, and I think you're
8 telling me that that paragraph remains identically true
9 as the paragraph that's in front of you; is that
10 correct?

11 MR. PATARIU: Objection. Form. Objection.
12 Foundation.

13 THE WITNESS: I provided a construction for
14 the claim as it was written. And I've shown support for
15 that. I've shown that if it -- an embodiment that has
16 the text describing it as different and separate would
17 meet the claim language. I've also cited to the figures
18 in the patent to meet the claim language.

19 BY MR. HAWKINS:

20 Q. Well, all of that being true, do you even know
21 if that instead the claim language said "different and
22 separate from" in paragraph 93, would that possibly
23 change your construction?

24 MR. PATARIU: Objection. Form. Objection.
25 Foundation. Objection. Relevance.

1 THE WITNESS: Once again, it's a hypothetical
2 change to the claim language. I just examined the claim
3 language as it is. If the patent had different claim
4 language, I would want time to think about intrinsic
5 evidence, that claim language, and form an opinion that
6 I could provide if I -- if a patent actually had that
7 modified claim language.

8 BY MR. HAWKINS:

9 Q. So I'll back up from the language in claim 93,
10 and I'll put just kind of a hypothetical about the claim
11 meaning.

12 Have you been to the U.S. Patent Office
13 before?

14 A. Physically, no.

15 Q. Okay. So they have the main building, called
16 the Madison Building. There's a street in front of it
17 where the cars pick you up. It's called Dulany Street.
18 So let's walk down a hypothetical.

19 You and I are leaving the patent office
20 together. We walk down the stairs together. You hop in
21 your car, and I hop in my neighboring car. And they go
22 down Dulany Street together. And I take a left, and my
23 car goes toward Minneapolis. Your car takes a right,
24 and it goes toward North Carolina.

25 In that hypothetical, was your path home

1 different from my path home?

2 MR. PATARIU: Objection. Form. Objection.
3 Relevance. Objection. Foundation.

4 THE WITNESS: The hypothetical you've just
5 given is you and I walking out of a building. The
6 patent, the '506, is describing a battery charger, with
7 respect to current paths. I don't -- I haven't
8 considered the relevance or the analogy between the two
9 to really understand to talk about us walking out and
10 driving to different places in the context of the '506
11 patent. So I really haven't --

12 BY MR. HAWKINS:

13 Q. I'm just searching right now for your ordinary
14 understanding of the two-word phrase "different from."
15 And so imagine any scenario where you and a person drive
16 down a road together for a period of time in neighboring
17 cars. One of them takes a left to go to their place.
18 One of them takes a right to go to the other place.

19 My question is, did they take a different
20 path?

21 MR. PATARIU: Objection. Form. Objection.
22 Relevance. Objection. Foundation.

23 THE WITNESS: In the hypothetical you've
24 presented, this is not a current path. In a current
25 path, the claim language is "having a current path to

1 the battery" -- "having a current path to the battery
2 pack different from." The claim language is about
3 current and the path of current.

4 And my apologies. I appreciate an analogy to
5 us traveling together, but I'm not sure that works in
6 the same context of a current path.

7 BY MR. HAWKINS:

8 Q. Understood. Let's go to the current path
9 example. So there is a current path where there is a
10 current, and it splits and it goes into two parallel
11 current paths, and then they go through their respective
12 circuitry and go to outputs. But there is a portion of
13 the copper trace where in fact it's the same path, and
14 then they split before they go parallel on this circuit
15 board.

16 Are those two different current paths?

17 MR. PATARIU: Objection. Foundation.

18 THE WITNESS: Yes.

19 MR. PATARIU: Objection. Form.

20 BY MR. HAWKINS:

21 Q. Is one current path different from the other
22 current path?

23 MR. PATARIU: Objection. Foundation.

24 Objection. Form.

25 THE WITNESS: The path that the current -- the

1 currents take are not different. They have an overlap
2 of their flow through the use of copper trace, as an
3 example.

4 BY MR. HAWKINS:

5 Q. So before, yes, they're different, but no,
6 they are not a different path; is that correct?

7 MR. PATARIU: Objection. Form.

8 THE WITNESS: If those are the words I just
9 previously said, I should clarify that. They are
10 different -- those two currents do not have different
11 paths.

12 BY MR. HAWKINS:

13 Q. I'm going to briefly turn to the '506 patent
14 again. Take a look at column 3, line 12. You
15 previously referred to the annotations that you made on
16 Figure 3 and Figure 1. I'd like to look at column 3,
17 line 12, where they're described in there.

18 Figure 3, in column 3, line 12, is described
19 as a schematic block diagram; correct?

20 A. Figure 3 is a schematic block diagram of the
21 portable backup charger in accordance with one
22 embodiment of the application.

23 Q. And then if you go down to the description of
24 Figures 4 to 7, those are described as a circuit
25 diagram; right?

1 A. Figure 4, Figure 5, Figure 6, and Figure 7 are
2 listed as circuit diagrams.

3 Q. What's the difference between a schematic
4 block diagram and a circuit diagram?

5 MR. PATARIU: Objection. Form.

6 THE WITNESS: So schematic is a technical
7 drawing or diagram. And so a schematic block diagram is
8 showing a block diagram of the portable charger. Block
9 diagrams inform a POSITA of the structure and function
10 of electronic devices. The circuit schematics show a
11 specific selection of components that might be used to
12 perform that structure and function.

13 BY MR. HAWKINS:

14 Q. Does a circuit diagram including a battery
15 show current paths from that battery?

16 MR. PATARIU: Object to form.

17 THE WITNESS: I'm sorry. Could you reask the
18 question.

19 BY MR. HAWKINS:

20 Q. Sure. Does a circuit diagram including a
21 battery show current paths from that battery?

22 A. I apologize. I want to listen to the exact
23 word you said. Could you say it one more time.

24 Q. Does a circuit diagram including a battery
25 show current paths from that battery?

1 A. A circuit diagram, in a general sense, could
2 show current paths from a battery.

3 Q. Okay. So if we refer to Figures 4 to 7, which
4 are the circuit diagrams, can you please identify where
5 the second current path having a fuse is anywhere in
6 Figures 4 to 7?

7 A. I believe your question was, can I identify a
8 fuse in Figures 4 through 7? Is that a correct
9 understanding?

10 Q. Partially. If you recall, claim 1 requires --
11 or I'm sorry. Figure 3 describes a second current path
12 that goes through a fuse. That's the second protection
13 circuit in Figure 3; right? And Figures 4 to 7 are the
14 circuit diagrams of that example system.

15 And my question is, in Figures 4 to 7, can you
16 find any current path with a fuse?

17 A. Figure 4 through 7 are circuit diagrams of a
18 charger in accordance with one embodiment of the
19 application. I don't see Figure 4 and 5 and 6 and 7
20 saying that they are the complete circuit diagrams of
21 Figure 3. I don't see a fuse in 4, 5, 6, or 7, nor
22 would I necessarily expect to, based upon their
23 description of just being in accordance with an
24 embodiment of the application.

25 Q. Is there any current path in Figures 4 to 7

1 that outputs from the battery pack to the output
2 terminals for jump-starting a vehicle?

3 A. Figures 4 through 7 are describing circuit
4 diagrams of portions of an embodiment. And as I said
5 before, 4 through 7, which a POSITA would not understand
6 is a complete circuit diagram of all embodiments -- they
7 don't include -- they do not include a fuse. I think
8 it's the same answer as I said before. There's not a
9 fuse in 4 through 7, nor would I expect there to be,
10 based upon -- let me rephrase that.

11 It's not -- I would expect that Figures 4
12 through 7, as they are, are talking about specific
13 pieces of an embodiment and that they're not talking
14 about the piece that would include a fuse. And I don't
15 see a fuse in 4 through 7.

16 Q. Do you see any current path to output
17 terminals for jump-starting a vehicle?

18 A. Once again, Figures 4 through 7, a POSITA
19 would look at these and understand these to be examples
20 of circuit diagrams, of portions that would be found in
21 an embodiment. Figures 4 through 7 do not include a
22 fused output.

23 Q. I'd like to refer back to your declaration.
24 This time it's paragraph 105. So in paragraph 105, you
25 have, above that, an illustration of Figure 3, which

1 we've been discussing, but then you also -- there's a
2 quote in the first -- sorry -- lines 3 and 4 of
3 paragraph 5 [sic]. It's actually quoting the language
4 we talked about in column 7, lines 30 to 39. Well, a
5 version of that phrase, I believe.

6 I believe it's actually quoting the Chinese
7 application, but that same type of a -- the user
8 flexibly choosing to be able to charge these -- any one
9 of the accessories: Mobile phones, computers, digital
10 cameras. So you don't actually cite where it is, but I
11 believe it's the part of the Chinese application that
12 you mention in paragraph 101.

13 So with that background, I want to make sure I
14 am understanding the logic to get to a conclusion. So
15 the conclusion is that you say, in paragraph 105, a
16 POSITA would understand that the current provided to
17 these devices would be less than that provided to the
18 terminals for the 100-amp-to-400-amp output for vehicle
19 starting operations.

20 And so I believe what you are relying upon is
21 Figures 1 and 3 and then also this text about that these
22 direct current options -- the 5 volt, 19 volt, and
23 12 volt -- that what they're outputting is direct
24 current for charging these accessories: Mobile phones,
25 computers, digital cameras.

1 Is it true that from that type of teaching,
2 that's how you're getting the conclusion you're not
3 outputting -- you're outputting something less than
4 100 amps?

5 MR. PATARIU: Objection. Foundation.
6 Objection. Form.

7 THE WITNESS: The description in the
8 specification in, I believe, the Chinese priority as
9 well as the '506 mentioned mobile phones or cell phones,
10 computers, and digital cameras.

11 And a POSITA would understand what power
12 requirements those are and understand that those power
13 requirements for those devices are low-current outputs
14 in relation to over 100 amps. And I cited an example
15 from the same time frame of examples of devices that
16 supplied current for similar accessories.

17 BY MR. HAWKINS:

18 Q. So it's not just the 5-volt USB example. In
19 fact, in the 12-volt output and the 19-volt output, a
20 POSITA would also know that for those it is less than
21 100 amps because it's able to charge these accessories.

22 Is that your conclusion?

23 MR. PATARIU: Objection. Form. Objection.
24 Foundation.

25 THE WITNESS: A USB [sic] would certainly

1 understand that it has very strict requirements for
2 capabilities for current. Furthermore, the
3 specification talks about devices such as mobile phones,
4 computers, and digital cameras. And a POSITA would know
5 that those are low-power devices relative to 100 amps at
6 the battery voltage, which would be roughly 12 volts.

7 BY MR. HAWKINS:

8 Q. So the teaching you're relying upon describes
9 there's an option for a 12-volt or a 19-volt direct
10 current that can be used to power mobile phones and
11 other accessories, and that type of teaching in a patent
12 document would inform a person of skill that the
13 amperage is less than 100 amps.

14 MR. PATARIU: Objection. Foundation.
15 Objection. Form.

16 THE WITNESS: The specification describes
17 outputs supplying current for mobile phones, computers,
18 and digital cameras, which a POSITA would know are much
19 less power than the 100 amps, which would roughly be
20 1200 watts, of a 100-amp output.

21 Furthermore, there's a USB explicit
22 disclosure, which would be specified not to be above a
23 certain current range, which could be 1 amp or 2 amp,
24 depending on the specification valid at that time.

1 BY MR. HAWKINS:

2 Q. Are you aware of any of these mobile
3 accessories that could be charged by a 12-volt output
4 that took 1200 watts?

5 MR. PATARIU: Objection. Form. Objection.
6 Foundation.

7 THE WITNESS: Could you repeat the question
8 for me?

9 BY MR. HAWKINS:

10 Q. Sure. Are you aware of any mobile accessories
11 that would be charged by the 12-volt output that
12 required 1200 watts?

13 MR. PATARIU: Objection. Form. Objection.
14 Foundation.

15 THE WITNESS: I'm familiar with mobile phones,
16 computers, and digital cameras that operate at 19 volt,
17 12 volt, and 5 volt. For instance, 19 volt is -- at the
18 time was one of the standard voltages for laptops.
19 5 volts was for USB.

20 So I'm familiar with low-current applications
21 for all of these, and that's primarily my understanding
22 of where 19, 12, and 5 were used. So I know of many
23 low-current applications at these voltages, and I think
24 a POSITA would also know of these low-current
25 applications.

1 BY MR. HAWKINS:

2 Q. And so, for example, the typical 19-volt
3 direct current output, what's an example of an amperage
4 that was normally used at that time?

5 A. Well, I include here just an example of a
6 battery pack that provided the same voltages for I think
7 what a POSITA would understand similar applications of
8 mobile phones, cameras, and computers. In this example
9 that I cite in the report, 3.5 amps. And that is
10 consistent with my understanding of laptop chargers in
11 the order of 50 to 100 watts.

12 Q. What's an example of something that would
13 connect with your example of the 12 volt, 10 amp?

14 MR. PATARIU: Objection. Form.

15 THE WITNESS: A light. Spotlight, flashing
16 emergency light would be an example.

17 MR. HAWKINS: Okay. Well, let's move on now
18 to -- we've been going about an hour.

19 Would you guys like to take another break?

20 MR. PATARIU: Yeah. Sorry. I was just about
21 to mention that. That would be great.

22 MR. HAWKINS: Great. So we will go off the
23 record, and we will take another 10-minute break. And
24 we are making progress.

25 (Recess)

1 BY MR. HAWKINS:

2 Q. So I think I'm still sharing my screen. We'll
3 refer to paragraph 152 of your declaration. This is
4 where you're discussing the Chen reference. This
5 paragraph, you cite to page 19 of the petition. And so
6 I want to bring that up.

7 So page 19 of the petition cites to Chen's
8 Figure 1, which you mentioned. It also cites to
9 Figures 4 and 7 of Chen. This is sharing now page 19 of
10 the petition. So Figure 1 is depicted. And then, you
11 know, look at Figures 4 and 7 too. Up here is Figure 7.

12 So I want to dive into that a little bit to
13 make sure, first of all, did you consider Chen's
14 Figures 4 and 7?

15 A. I'm not sure if you're asking within a
16 specific section. I believe Figure 7 is shown in my
17 declaration, further down, and I believe Figure 4 is
18 also shown further down.

19 Q. Okay.

20 A. But perhaps maybe you're just asking about a
21 particular section here. This section is just showing
22 the Figure 1.

23 Q. Sure. Let's turn to Chen's Figure 7. I'll
24 try to share that now. So here's Chen's Figure 7 on
25 screen. If you have a clearer version in front of you

1 that's printed out, great.

2 A. Yep.

3 Q. So on the left side of Figure 7, there is a
4 node labeled "BAT+." BAT+. I'll highlight it on the
5 screen for you.

6 The BAT+ current line comes from Chen's
7 battery; right?

8 A. I would -- it's my understanding, in general,
9 that a label "BAT" would be the positive end of a
10 battery.

11 Q. Sure. I'll go to Chen's Figure 3 to really
12 hone in on this. So on the right side of Figure 3,
13 you'll see the BAT+ coming off the battery, and that
14 BAT+ in Figure 3 is the source of my question. So let's
15 perhaps just turn back to Figure 7 with that BAT+ in
16 mind.

17 So in Figure 7, the BAT+ is supplying the
18 current, and when it goes through the various circuit
19 components, it can be output to USB1 or USB2; correct?

20 MR. PATARIU: Objection to form.

21 THE WITNESS: There's certainly -- the input
22 is battery plus on the left, and there are two USB
23 outputs on the right. That's correct.

24 BY MR. HAWKINS:

25 Q. Can you please refer to Chen's Figure 4 now.

1 I'm showing that on the screen.

2 A. Uh-huh.

3 Q. So here the same BAT+ signal is used to power
4 the relay K1; right?

5 A. The solenoid part of K1, as I would understand
6 it, is a relay that's powered by BAT+.

7 Q. And in Figure 4, when that relay is closed,
8 there's a current path that extends from a terminal
9 labeled "B1+" through the resistors, R1 through R6, and
10 then to the jump starter output, OUT+1; correct?

11 A. I think you're referring to those resistors on
12 the left?

13 Q. Yes.

14 A. All right. I do see the resistors on the
15 left, and I see a notation to -- it looks like B1+.

16 Q. So my question is, when that relay is closed,
17 the current path goes from B1+ to OUT+1. I'm sorry. To
18 OUT+1. Yes. Correct? I'll repeat that.

19 When the relay is closed, the current path
20 goes from B1+ to OUT+1 in Figure 4; correct?

21 A. Current can flow from B1+, through the
22 resistors, through the relay, to OUT+1.

23 Q. Okay. So we'll return to your declaration
24 now, paragraph 156 through 158. And maybe we'll just
25 focus on paragraph 158 for now. So I'm sharing that on

1 the screen. The part of your paragraph 158 that
2 actually bleeds on from page 81 to 82, it cites to the
3 IPR petition at page 20.

4 When you were developing your positions about
5 Chen, did you consider the part of the petition on
6 page 12 that also summarized Chen?

7 Maybe I'll rephrase my question.

8 When you considered your position regarding
9 Chen for the first protection circuit, you cited to the
10 petition at page 20, but did you also consider pages 10
11 through 13 of the petition, that have a section entitled
12 "Chen" and summarize Chen's teaching?

13 A. Two points. And that is, one, I wouldn't
14 consider my declaration a position but rather a
15 technical analysis.

16 In performing my technical analysis,
17 paragraph 158 is analyzing page 20 of the petition and
18 providing my technical opinion that the technical
19 description in 1.4 on page 20 -- so element 1.4 on
20 page 20 was incorrect; that U3B and D12 are not
21 connected to the USB input. So that was my analysis in
22 158.

23 Q. Did you, at any point in preparing your
24 declaration, consider pages 10 through 13 of the IPR
25 petition, that summarized the Chen reference?

1 A. In paragraph 158, I'm providing my opinion of
2 page 20. I don't believe I provided an opinion or
3 analysis on page 10 of the petition.

4 Q. So my question isn't whether you provided an
5 opinion.

6 It's, did you ever consider, when forming any
7 of your opinions in the declaration, pages 10 through 12
8 of the petition, that summarized the Chen reference?

9 A. I certainly read the petition. So I read
10 those paragraphs when I reviewed the document.

11 Q. So, for example, page 12 of the petition, when
12 it's talking about Chen's mobile charger device
13 providing the lower-current DC outputs, including the
14 5-volt USB connections -- that's on page 12 -- and it
15 cites to, among other things, paragraph 47 of the Woods
16 declaration.

17 Do you see that?

18 A. I do see that citation in the petition.

19 Q. Did you, at any point in time, when analyzing
20 the Chen reference, consider paragraph 47 of the Woods
21 declaration?

22 A. Once again, paragraph 158 in my declaration
23 was analyzing the petition on page 20, and that's what
24 the analysis in 158 is. If there's a citation to a
25 different one in that paragraph, I think it's just

1 citing to the petition there. And so that was my
2 analysis of that page of the petition.

3 Q. Did you at any point, in forming any analysis
4 in any part of your declaration, consider paragraph 47
5 of the Woods declaration?

6 A. I don't believe I cited to paragraph 47
7 anywhere in my declaration.

8 Q. Did you ever consider it?

9 A. I think, as we discussed earlier, in the
10 materials considered, I reviewed the petition. And I
11 was aware of Woods' declaration. I believe I cite a few
12 places in it. So -- but once again, my analysis in
13 paragraph 158 is on the petition on page 20.

14 Q. I'd like to refer to paragraph 159 of your
15 declaration. There it is. There we're talking about
16 the petition's analysis of elements 1.2 and 1.3. I
17 guess paragraph 159 doesn't cite to the petition, but I
18 want to show the petition, where we are analyzing those
19 elements. So I guess we're on 1.3. It starts on
20 page 16 of the petition and goes then to page 20, which
21 you did cite.

22 Did you consider as part of your analysis of
23 what the petition analyzed in element 1.3 page 19 of the
24 petition?

25 Maybe I'll retract that question. I'll be

1 more specific.

2 The first three lines of page 19 assert that
3 Chen teaches the output terminals have a current path to
4 the battery pack that is different from the output ports
5 of the USB connections and the DC multi-gear
6 connections.

7 Do you see that?

8 And then, additionally, you'll see at the last
9 four lines of page 19, the second current to Chen's
10 high-current output unit 11 is higher than the first
11 current to Chen's USB connectors and the DC multi-gear
12 output port.

13 Do you believe the petition at least asserted
14 that the multi-gear output port had a first current
15 path?

16 MR. PATARIU: Object to form.

17 THE WITNESS: If you could repeat the last
18 part of your question.

19 BY MR. HAWKINS:

20 Q. Sure. Do you believe the petition at least
21 asserted that Chen provides a first current path by
22 referencing the DC multi-gear output?

23 MR. PATARIU: Object to form.

24 THE WITNESS: So the petition in 1.2 says that
25 Chen teaches a first USB output unit 8 to second USB

1 output unit 9 and a DC multi-gear output. So I think
2 that answered your question of did I see in the petition
3 where, under 1.2, the DC multi-gear output 10 was
4 referenced.

5 BY MR. HAWKINS:

6 Q. Yes. And my question is, do you believe the
7 petition relies upon the multi-gear output as a first
8 current output?

9 MR. PATARIU: Objection to form. Objection.
10 Foundation.

11 THE WITNESS: I apologize. I was referring to
12 the document. Could you -- I thought I answered the
13 question, but if you could ask it again, I'll try to --

14 BY MR. HAWKINS:

15 Q. Sure. You testified that the petition refers
16 to it.

17 My question was, when you read that, did you
18 consider that the petition relies upon Chen's multi-gear
19 output as the first current output?

20 MR. PATARIU: Objection. Form.

21 THE WITNESS: The claims -- claim 1, which I'm
22 referencing in my petition -- I'm sorry -- my
23 declaration, in 156 and the related paragraphs, at least
24 one output port wherein the battery pack is configured
25 to output a first current in a first operating mode. So

1 we've got an output port first current operating in a
2 first operating mode.

3 And then 1.4 says a first protection circuit
4 coupled to the battery pack and configured to protect
5 the battery pack when working in the first operating
6 mode. And so I understand that 1.4 is looking to 1.2 to
7 say, look, you've identified or you have a first
8 operating mode. You need to have a first protection
9 circuit.

10 And as stated right before, at 151, Chen does
11 not disclose -- sorry. Wrong paragraph. About 156, the
12 petition does not identify the claimed first protection
13 circuit. So the protection circuit in 1.4 that's
14 identified is the -- is a USB protection circuit. And I
15 pointed out in 158 that the cites were not a USB.

16 So I think I was just struggling with just the
17 word "first current." I was thinking of first operating
18 mode and the first protection needed for that.

19 BY MR. HAWKINS:

20 Q. We're going to work our way down that 1.4.

21 But for elements 1.2 and 1.3 -- I'm showing
22 you on screen page 19, which is 1.3 -- do you believe
23 the petition relied upon both Chen's USB outputs and
24 Chen's multi-gear output for elements 1.2 and 1.3?

25 MR. PATARIU: Objection. Form.

1 THE WITNESS: In 1.2 -- and it's at the
2 page 14 -- the petition says that Chen teaches first USB
3 output unit 8 to second USB output unit 9 and a DC
4 multi-gear output 10. Those are also shown in the
5 annotated figure below for 1.2. So these are three
6 outputs that are identified in 1.2. In 1.3, the
7 high-current output 11 is identified, and then a first
8 USB output unit 8 is identified.

9 I think I answered the question there in
10 reading this --

11 BY MR. HAWKINS:

12 Q. So on page 19 of the petition, did you
13 consider the argument and cited evidence at the bottom
14 of page 19 that the second current from Chen's
15 high-current output 11 is higher than the first current
16 to Chen's USB connectors and the DC multi-gear output?

17 And then it cites to paragraph 57 of the Woods
18 declaration.

19 Did you consider that argument in paragraph 57
20 of the Woods declaration?

21 MR. PATARIU: Objection. Foundation.
22 Objection. Form.

23 THE WITNESS: In my declaration, on page [sic]
24 159, I state the IPR petition apparently relies only on
25 the USB outputs for limitations 1.2 and 1.3, as those

1 are the only ports that are analyzed in limitation 1.3
2 for the requirement that the second current is higher
3 than the first current.

4 And I see on page 20 that the section 1.3 has
5 analyzed and given a basis for the USB current, which is
6 consistent with my declaration stating that those
7 sections of the IPR analyzed 1.3 for the USB ports.

8 BY MR. HAWKINS:

9 Q. Yes. You seem to be analyzing a fragment of a
10 paragraph. I'm asking about that full paragraph. So
11 start at paragraph -- on page 19, the final four lines,
12 there's a paragraph starting "Finally." That's where
13 the full paragraph starts.

14 And so when you read that first sentence, do
15 you read that sentence as if it's only relying upon
16 Chen's USB connectors?

17 MR. PATARIU: Objection to form.

18 THE WITNESS: There's two pieces here. In
19 my paragraph 159, I discuss the ports that are analyzed
20 in the petition. In reading the paragraph starting
21 with "Finally" on page 19 through its ending on
22 paragraph [sic] 20, I see that it discusses USB
23 standards of being a half an amp, which is certainly
24 less than a high-current output path. And so that's
25 what I'm pointing to in paragraph 159 of my declaration.

1 BY MR. HAWKINS:

2 Q. Okay. In forming your opinions in your
3 declaration, did you consider Dr. Woods' testimony at
4 paragraph 57?

5 A. The opinion in my declaration -- once again,
6 this is paragraph 159 -- I'm analyzing the petition and
7 looking at what it analyzes for the current requirement.

8 And in reading the paragraph starting with
9 "Finally" on page 19 and ending just above "Element
10 [1.4]" on page 20, in that paragraph in the petition, I
11 only see a statement of current -- an evaluation of
12 current for USB standards. And that's what I see in the
13 paragraph. That's what 159 says.

14 Q. So that paragraph cites to paragraph 57, and,
15 also, on the part of page 20 that you cite to cites the
16 paragraphs 58 through 60 of the Woods declaration.

17 Did you refer to or consider -- I'm sorry.

18 Did you consider any of that testimony in
19 forming your opinion?

20 A. Just firstly, I think it was -- I see in the
21 petition, it cites to Exhibit 1003, which I believe is
22 the Woods declaration, on paragraph 57, 26. I heard a
23 different range. But once again, my opinion in the
24 sentence that forms paragraph 159 is the paragraph
25 that's in the petition. I don't cite to any other piece

1 other than the paragraph that's in the petition.

2 Q. And I think we're two ships passing in the
3 night.

4 All I asked was, did you consider the
5 testimony ever in paragraph 57 of the Woods declaration?

6 A. I analyzed the paragraph starting "Finally" on
7 19, ending right above "Element [1.4]," analyzed that
8 paragraph as it is in the declaration.

9 Q. So similar question -- we turn the page of the
10 petition -- for element 1.4. At the very bottom of
11 page 20, it cites to Dr. Woods' testimony, paragraphs 58
12 to 60. Same question.

13 Did you ever analyze that testimony that's
14 cited for the sentence "The evidence here confirms that
15 this circuit is configured to protect Chen's internal
16 battery 4 from an overcurrent condition through the USB
17 outputs 8.9 (or the multi-gear output 10) that might
18 otherwise cause 'damage' to Chen's battery and other
19 electronics"? And then it refers to paragraphs 58 to 60
20 of the Woods declaration.

21 When you read that part of the petition, did
22 you also consider the evidence that's cited and referred
23 to there?

24 MR. PATARIU: Objection. Form.

25 THE WITNESS: I analyzed the paragraph on

1 page 20 under "Element [1.4]." I analyzed the paragraph
2 as it is in the petition in forming my opinion.

3 BY MR. HAWKINS:

4 Q. Have you ever read paragraphs 58 to 60 of the
5 Dr. Woods declaration?

6 A. I am sure at some point I have read all the
7 paragraphs in the declaration.

8 Q. I'll actually just go right to it so that way
9 we can refresh some memory here. Let's see. All right.
10 So paragraph 59 of the Dr. Woods declaration. It says
11 similarly, the 5-volt USB outputs, USB1 and USB2 in
12 Figure 7, are supplied by the buck converter circuitry.
13 And the second sentence of that paragraph 59,
14 overcurrent protection is enabled by the current-sense
15 circuitry connected to op-amp U3A in Figure 7.

16 Do you think that the op-amp U3A in Figure 7
17 of Chen provides overcurrent protection for Chen's USB
18 outputs?

19 MR. PATARIU: Objection. Foundation.
20 Objection. Form.

21 THE WITNESS: The analysis that I presented in
22 the section paragraphs 156 through 161 was on the
23 petition. And as I mentioned before, I was analyzing
24 the text of the petition. That's what I analyzed. And
25 the opinions in these paragraphs is on the text in the

1 petition.

2 BY MR. HAWKINS:

3 Q. Got it. So referring to Chen's Figure 7, the
4 op-amp U3A, do you believe a person of skill in the art
5 would understand that provides overcurrent protection
6 for Chen's USB outputs?

7 MR. PATARIU: Objection. Form. Objection.
8 Foundation.

9 THE WITNESS: I analyzed Figure 6 in the Chen,
10 as that contained the items U3B and D12, which were
11 cited in the petition. So that is the circuit that I
12 analyzed.

13 BY MR. HAWKINS:

14 Q. You've never analyzed Chen's Figure 7?

15 A. I don't believe I offer an opinion on Chen's
16 Figure 7 other than the outputs on the right are USB
17 outputs.

18 Q. So I think the board would be very interested
19 in knowing if you disagree with Dr. Woods' paragraph 59
20 in any way.

21 Is there any reason to disagree with
22 Dr. Woods' testimony in paragraph 59?

23 MR. PATARIU: Objection. Form.

24 THE WITNESS: My declaration has no analysis
25 of this section of Figure 7, and I don't cite or analyze

1 Dr. Woods' opinion on Figure 7 in my declaration.

2 BY MR. HAWKINS:

3 Q. Okay. Well, let's please refer to
4 paragraph 165 of your declaration. Paragraph 165.
5 There's a phrase that you refer to as "voltage detecting
6 circuit." It's in the third line of paragraph 165.

7 Do you see that?

8 A. I do see that, yes.

9 Q. So there you're referring to a classic circuit
10 in which a resistor is placed along a current path and
11 the voltage across that resistor is measured; right?

12 A. In paragraph 165, I describe a
13 voltage-detecting circuit of R38 and R41. A POSITA
14 would recognize that as a common voltage divider for
15 detecting voltage.

16 Q. And a common voltage divider is used where you
17 place a resistor along a current path and then measure
18 the voltage across that resistor; is that correct?

19 A. Perhaps I misheard, but that's not my
20 understanding.

21 Q. Okay. Can you please explain how the voltage
22 divider is working.

23 A. A voltage divider takes a voltage, and it
24 divides that voltage down by a predetermined ratio, and
25 then that predetermined ratio is used for some other

1 purpose in the circuit.

2 Q. So is a voltage divider ever used to detect
3 current?

4 MR. PATARIU: Objection. Foundation.
5 Objection. Form.

6 THE WITNESS: A voltage divider, in its common
7 usage, is used to detect a voltage. That's why it's
8 called a voltage divider. And the configuration of the
9 resistors R38 and R41 are a voltage divider because of
10 its function and also the structure that's there, that
11 it's detecting a voltage.

12 BY MR. HAWKINS:

13 Q. So can you please give an example of, in your
14 view, what is the most common type of current detection
15 circuit in a DC device.

16 A. I think it would depend on the application. I
17 don't think there's a common one without specifying an
18 application or specific use case. And even then, I'd
19 have to think about what would be common in those
20 specific examples.

21 Q. In a backup charger device, what's an example
22 of a current detection circuit?

23 MR. PATARIU: Objection. Foundation.
24 Objection. Form.

25 THE WITNESS: I don't think in my declaration

1 I talk about, in a technology background, different
2 current detection methods. They make current probes,
3 just as an example, that you can measure current with by
4 attaching the probe. But there's many, many other ways
5 to measure current.

6 BY MR. HAWKINS:

7 Q. Is one other way to measure current to measure
8 voltage across a resistor of that current?

9 MR. PATARIU: Objection. Foundation.
10 Objection. Form.

11 THE WITNESS: The voltage across resistor, V
12 equals IR , is certainly related to current.

13 BY MR. HAWKINS:

14 Q. Have you ever seen a direct current device
15 that measures current by measuring a voltage across a
16 resistor?

17 A. Outside the scope --

18 MR. PATARIU: Objection. Form.

19 THE WITNESS: -- of my declaration in Chen, in
20 general, in my work history, I've, yes, seen types of
21 current sensors that might use an impedance to measure a
22 current.

23 BY MR. HAWKINS:

24 Q. You might refer to Figure 6 of the '506
25 patent. So in the lower right side, there's a resistor

1 R39 by this USB output. This is Figure 6 of the '506
2 patent.

3 Is the voltage across the resistor R39 being
4 used to detect current?

5 MR. PATARIU: Objection. Form.

6 THE WITNESS: I don't believe in the text
7 there's any description of using those components to
8 detect current. I see a circuit involving R39. R41 is
9 attached. C32 is attached. And it goes to F1. I don't
10 believe the spec describes what F1 is or what that
11 function is.

12 BY MR. HAWKINS:

13 Q. Do you think R39 is part of a classic voltage
14 divider circuit?

15 A. I don't believe I've provided an analysis for
16 the specific components related to the lower right
17 corner of Figure 6, R39, R41. So I don't believe I've
18 looked at that specific. But I don't know where F1 is,
19 and there's nothing in the specification to tell me how
20 it's being used.

21 Q. So a person of skill in the art looking at
22 Figure 6 would not be able to look at Figure 6 alone and
23 know whether the resistor R39 is being used to detect
24 the current.

25 A. I think a POSITA would understand basic

1 circuit diagrams and look at that and be able to
2 understand how the voltage and currents relate in
3 Figure 6.

4 Q. Great. Is the resistor R39 being used in a
5 circuit to detect the current?

6 A. So once again, a POSITA would understand how
7 to analyze the resistors and capacitor. All that's
8 shown on the circuits is that there is an impedance tied
9 to the -- there's an impedance tied to the minus pin --
10 right -- ground, which I would understand as being
11 the -- you know, the reference point for 5 volts is
12 coming out below that minus point. So the minus pin is
13 connected to R39, R41, and C32.

14 I think that's the analysis that a POSITA
15 would make and understand that F1 node voltage would be
16 a function of those components and their values.

17 Q. And so is that F1 node voltage being used to
18 detect the current?

19 MR. PATARIU: Objection. Form.

20 THE WITNESS: The node F1, I don't see its
21 connection to anywhere else. So it's just applying an
22 impedance of the parallel of R39 and the series of R41
23 and 32 to the minus pin of the USB connector. That's
24 all it's doing. It doesn't go anywhere else. I don't
25 see a description in here that describes it, it being

1 used in any way.

2 BY MR. HAWKINS:

3 Q. Have you ever seen a circuit similar to this
4 where a voltage is being detected across a resistor to
5 detect a current?

6 MR. PATARIU: Objection. Foundation.

7 BY MR. HAWKINS:

8 Q. I'm sorry. Excuse me.

9 Have you ever seen a circuit like this before
10 where a voltage is being measured across a resistor to
11 detect a current?

12 MR. PATARIU: Objection. Foundation.

13 Objection. Form.

14 THE WITNESS: Hypothetically, in any circuit
15 that I've ever seen, not related to the '506 or Chen, I
16 think we discussed before, people have used, you know,
17 V equals IR . So the voltage across an impedance or
18 resistor is a function of the resistance in the current.
19 And that could be -- could be used to measure current.

20 BY MR. HAWKINS:

21 Q. All right. Let's refer back to paragraph 165
22 again. I believe it's the end of that paragraph. So
23 you're concluding that Chen uses a, quote, voltage
24 detection circuit, comma, and not a current detection
25 circuit, and therefore fails to provide claim element

1 1.5.

2 So my question for you is, if someone builds a
3 charger identical to what's shown in the '506 patent but
4 prevents an overcurrent condition by monitoring the
5 voltage across the resistor, does that charger also
6 avoid element 1.5?

7 MR. PATARIU: Objection. Foundation.
8 Objection. Form.

9 THE WITNESS: I apologize. You had mentioned
10 the '506, but you have my declaration up.

11 BY MR. HAWKINS:

12 Q. Sure. So in paragraph 165, you're reaching
13 the conclusion that Chen provides voltage detection
14 circuits, and not current detection circuits, and for
15 that reason, that's why, in your view, Chen does not
16 provide element 1.5.

17 So my question is, if somebody takes a charger
18 of the '506 patent that's depicted identically except
19 for the fact that it's going to prevent an overcurrent
20 condition by monitoring a voltage across a resistor,
21 does that likewise avoid element 1.5?

22 MR. PATARIU: Objection to form. Objection.
23 Foundation.

24 THE WITNESS: In my declaration, I state that
25 voltage-dividing resistors R59 and 60 and R38 and R41

1 are voltage-detecting circuits, and I cite just above
2 it, in paragraph 164, to Chen 35, where Chen says
3 detection resistors R38 and R41 divide and detect the
4 voltage of the electrical device, and when the voltage
5 of the electrical appliance returns to normal, the
6 relay K is automatically turned off.

7 So it seems very clear to me that Chen is
8 describing R38 and R41 as a voltage detection, and it's
9 monitoring when the voltage returns to normal to process
10 some additional functionality.

11 BY MR. HAWKINS:

12 Q. And so my question's a little different than
13 that.

14 If you take the preferred embodiment to the
15 '506 patent but instead of using a fuse, you instead
16 use -- I'm going to call them resistors R38 and R41, and
17 I'm going to measure the voltage across that, and if
18 that voltage measurement reaches some threshold, I'm
19 going to cut off the second current. So I'm now
20 measuring voltage across a resistor, and that is what is
21 dictating the protection of that second protection
22 circuit.

23 In that scenario, does that device also avoid
24 element 1.5?

25 MR. PATARIU: Objection. Foundation.

1 Objection. Form.

2 THE WITNESS: Element 1.5 says a second
3 protection circuit coupled to a battery pack and
4 configured to prevent an overcurrent condition. So
5 that's the claim limitation. And in the embodiment in
6 Chen -- sorry -- in '506, they show a fuse as a means to
7 protect against an overcurrent condition.

8 I think your question is, if there was a
9 apparatus that met all the claim limitations, including
10 it had a second protection circuit coupled to the
11 battery to -- configured to prevent an overcurrent
12 condition, could that meet the claim limitation. If it
13 meets all the pieces of 1.5, then it would meet the
14 limitation.

15 BY MR. HAWKINS:

16 Q. And that same exact system that you just
17 described but that apparatus uses a voltage detection
18 circuit to determine when to cut off the current, does
19 that device avoid element 1.5?

20 MR. PATARIU: Objection. Foundation.
21 Objection. Form.

22 THE WITNESS: I think you're asking about a
23 hypothetical sensor. We were discussing Chen. I think
24 Chen discloses it's using its resistor dividers to
25 measure voltage. It's a voltage divider. When the

1 voltage returns to normal, it turns off the relay. So I
2 understand the voltage detection in Chen --

3 BY MR. HAWKINS:

4 Q. I think we're two ships passing in the night.
5 We're not talking about Chen.

6 We're talking about Figure 3. We're going to
7 take away that fuse and put in the apparatus you
8 mentioned. And my only added condition is that
9 apparatus uses a voltage detection circuit to determine
10 when the current is in overcurrent condition and shuts
11 off the current. So you could look at Figure 3 and,
12 where it says fuse, assume apparatus with a voltage
13 detection circuit.

14 In that scenario, what I'm trying to
15 understand is, in that scenario, would it avoid
16 element 1.5, or would 1.5 actually still ensnare that
17 type of device?

18 MR. PATARIU: Objection. Foundation.
19 Objection. Form.

20 THE WITNESS: 1.5 requires an overcurrent
21 protection. If you were to go to the embodiment in
22 Figure 3 and replace the fuse with an overcurrent
23 detector, that would fulfill the requirements of 1.5 of
24 a second protection circuit to prevent overcurrent
25 condition.

1 If you replace the fuse, which in the
2 preferred embodiment achieves an overcurrent protection,
3 with some other circuit that provides overcurrent
4 protection, that would still meet claim limitation 1.5.

5 BY MR. HAWKINS:

6 Q. Great. And you used the phrase "some other
7 circuit that provides overcurrent protection."

8 Can that some other circuit use a voltage
9 detection circuit to determine whether or not the
10 overcurrent condition exists?

11 MR. PATARIU: Objection. Foundation.
12 Objection. Form.

13 THE WITNESS: Once again, we're not -- we're
14 not -- we are not talking about a specific -- sorry. In
15 this hypothetical, I can't answer your question 'cause I
16 don't know what specific circuit, the component values,
17 the details, how it measures overcurrent, to understand
18 that it is overcurrent --

19 BY MR. HAWKINS:

20 Q. Okay.

21 A. -- but I'm saying if we establish it does
22 measure over- -- it does prevent overcurrent, then it
23 would meet 1.5.

24 Q. And can you establish that it meets
25 overcurrent by measuring a voltage across a resistor?

1 MR. PATARIU: Objection. Form. Objection.
2 Foundation.

3 THE WITNESS: So taking us away from Chen,
4 from the '506, from my declaration, if we just go back
5 to freshman electrical engineering, V equals IR ,
6 certainly with a fixed R , V is proportional to that I .

7 Could somebody build such a hypothetical
8 circuit that would take that voltage and somehow
9 determine an overcurrent condition, et cetera? They
10 could. But that circuit would be measuring the current,
11 and its function would be an overcurrent protection
12 circuit. That's what's needed. An overcurrent
13 protection circuit.

14 BY MR. HAWKINS:

15 Q. And previously you mentioned that in the
16 preferred embodiment, it's a fuse that's doing this.

17 Does a fuse actually detect the value of a
18 current?

19 A. It prevents an overcurrent condition.

20 Q. Yeah. And my question, is it a current
21 detection circuit?

22 MR. PATARIU: Objection to form.

23 THE WITNESS: Well, let me clarify that if
24 previously I said overcurrent detection, it is in the
25 context of claim 1.5, where we are preventing an

1 overcurrent condition.

2 So you have to prevent the overcurrent
3 condition. One way to do that is detect a current and
4 then prevent it, prevent the overcurrent condition. A
5 fuse does that. When it reaches a certain current, it
6 eliminates having any higher current than that by
7 becoming an open and inhibiting current flow.

8 BY MR. HAWKINS:

9 Q. So it will protect against overcurrent even if
10 it doesn't detect the value of a current.

11 MR. PATARIU: Objection. Form.

12 THE WITNESS: I don't think that's a correct
13 way to phrase it. Fuses have overcurrent protection
14 ratings. So you select a fuse. Let's say it's
15 500 amps. You select a fuse for 500 amps. That fuse
16 will protect you from an overcurrent condition of
17 500 amps in the example I just used as a hypothetical.

18 BY MR. HAWKINS:

19 Q. So returning to paragraph 165, the bottom of
20 page 85, you're basically referring and you're saying
21 that Chen's circuit using the relay K1 does not detect a
22 current or protect against an overcurrent condition; is
23 that right?

24 A. The disclosure in Chen, paragraph 35,
25 referencing R38 and R41, describes detecting voltages of

1 the electrical device and making decisions based upon
2 those voltages.

3 That is what I'm stating, stating these
4 circuits do not detect a current or protect an
5 overcurrent. I see nothing in here that protects, in
6 paragraph 35, of an overcurrent. It's detecting a
7 voltage, and when the voltage returns to normal, it
8 changes the relay state to off. That's what's in
9 paragraph 35 of Chen.

10 Q. So if Chen's original solution doesn't protect
11 against an overcurrent condition in its original form,
12 it's susceptible to an overcurrent problem when you're
13 trying to jump-start a vehicle? Is that what you're
14 trying to say here?

15 MR. PATARIU: Object to form.

16 THE WITNESS: I haven't provided an opinion on
17 what is missing in Chen, nor could I --

18 BY MR. HAWKINS:

19 Q. I think the very last line of page 85 here
20 does. You're saying that it does not protect against an
21 overcurrent condition.

22 That's what you're saying Chen's not doing;
23 right?

24 A. Paragraph 35 of Chen, so Figure 4 -- and I
25 cite this -- the paragraph of Chen that describes R38

1 and R41 of measuring a voltage. And I'm saying Chen
2 discloses that these resistor dividers that are voltage
3 dividers, voltage dividers as disclosed by Chen, are
4 used to measure a voltage, and when the voltage returns
5 to normal, Chen makes a decision.

6 So in all that description, Chen is not
7 talking about overcurrent. And so your question was, in
8 my declaration, what I cite to, does Chen say this is an
9 overcurrent circuit, and in my reading of Chen, it does
10 not.

11 Q. And I guess I was trying to be more simple
12 than that, which is, from what I can tell, you believe
13 Chen does not protect against an overcurrent condition;
14 is that correct?

15 MR. PATARIU: Objection to form.

16 BY MR. HAWKINS:

17 Q. I'll say it this way.

18 The very last line on page 85 seems to suggest
19 that your position is Chen does not protect against an
20 overcurrent condition; is that true?

21 MR. PATARIU: Objection. Form. Objection.
22 Foundation.

23 THE WITNESS: I believe the paragraph 165 of
24 my declarations say these circuits do not detect -- do
25 not detect a current or protect an overcurrent

1 condition, as disclosed by Chen.

2 I've cited above, in 163 and 162, the Figure 4
3 from Chen, the paragraph, the resistor dividers. And in
4 reading Chen's description of the functionality that
5 Chen does with these resistor dividers for voltage
6 sensing, he is not disclosing overcurrent protection.

7 BY MR. HAWKINS:

8 Q. So if I took that circuit that's shown on
9 page 85 and you'd analyzed in paragraph 35 -- I'm sorry.
10 Yeah. Start over.

11 If I look at Chen's circuit in Figure 4,
12 that you have on page 85 of your declaration, and
13 paragraph 35, if I did put a fuse somewhere around that
14 OUT+1 terminal or, I suppose, the OUT-1 terminal, in
15 theory I would achieve some type of a better overcurrent
16 protection than what Chen originally provides; is that
17 true?

18 MR. PATARIU: Objection. Foundation.
19 Objection. Form.

20 THE WITNESS: I think there's two pieces
21 there. One is if the '506 discloses a fuse as a form of
22 overcurrent protection. So if you took any apparatus as
23 Chen and you put a fuse in it in the same way it's used
24 in the '506, it would provide overcurrent protection.

25 The second part of that is, as we've just

1 described, the circuitry I'm referring to is measuring a
2 voltage. So it wouldn't be adding to or changing
3 existing overcurrent protection. The resistors as
4 disclosed by Chen, R38 and R41, are measuring a voltage.

5 MR. HAWKINS: So I'd like to -- actually, it's
6 probably a good time for a break, if that's okay with
7 you. So everybody knows, we're making good progress,
8 and hopefully we'll only need a couple more breaks at
9 the most.

10 MR. PATARIU: Thanks. See you in 10 minutes.

11 (Recess)

12 BY MR. HAWKINS:

13 Q. So if you can please refer to paragraph 185 of
14 your declaration now. Hopefully you can still see that
15 shared on my screen. Here we're talking about the
16 Chen-Richardson combination in claim 10.

17 And there's a portion of paragraph 185 --
18 let's see. Oh, here it is. At the very end. Sorry.
19 The IPR position does not explain how the hardware
20 circuit elements in both the cited upper portion of
21 Figure 2C in Richardson and Figures 1, 2, and 4 of Chen
22 can be combined. So I have a question about that
23 sentence to get some added clarity.

24 In your view, the proposed obviousness
25 combination for Chen and Richardson needed to explain

1 how to incorporate the cited upper portion of Figure 2C
2 in Richardson into the figures of Chen; right?

3 MR. PATARIU: Objection. Form.

4 THE WITNESS: Yes. I'm there with you.

5 BY MR. HAWKINS:

6 Q. So the answer to my question was yes? Is that
7 what you're saying?

8 A. Thank you for asking for clarity. Could you
9 repeat your question, please.

10 Q. Sure. In your review, the proposed
11 obviousness combination for Chen and Richardson needed
12 to somehow incorporate the cited upper portion of
13 Figure 2C in Richardson into the figures of Chen; right?

14 MR. PATARIU: Objection to form.

15 THE WITNESS: In paragraph 185, I am stating
16 that neither the IPR petition -- the IPR petition
17 explain the hardware circuit in Figure 2C and how it
18 fits with Figures 1, 2, and 4 of Chen are combined to
19 perform the cited portions of Figure 7. So I understand
20 that the citation's to Figure 2C and Figures 1, 2, and 4
21 of Chen; however, I didn't see how they combine together
22 to provide the functionality.

23 BY MR. HAWKINS:

24 Q. I think before, you just said the word "fit."
25 So I think what you believe is lacking is how are these

1 fitting together, how is that part of 2C incorporating
2 into Chen's figures.

3 Is that the right way to say what is believed
4 to be lacking?

5 A. To achieve the functionality that is shown in
6 Richardson's Figure 7.

7 Q. Right. So somehow what's lacking is that that
8 cited upper portion of Figure 2C in Richardson needs to
9 be incorporated into some of the figures of Chen to then
10 achieve that function in Figure 7.

11 Is that what you believe to be lacking?

12 MR. PATARIU: Objection to form.

13 THE WITNESS: The petition, on 44 and 45, says
14 that Richardson suggests the conventional practice of
15 monitoring the time that a jump start current is output
16 and cutting off the jump starter if the current time is
17 exceeded.

18 A POSITA would have been motivated to
19 implement Chen's relay K1 so that the switching mode
20 ceases the jump starting current after the predetermined
21 time but hasn't identified what is measuring the current
22 in order to provide that function and how it performs
23 that function.

24 BY MR. HAWKINS:

25 Q. So yeah. I think I'm just maybe focusing a

1 bit more on when you mentioned the word "fit," and not
2 the hardware circuit, one being incorporated in the
3 other.

4 Are you saying that that showing is missing,
5 or are you saying that a person of skill wouldn't know
6 how to do that part you just read?

7 MR. PATARIU: Objection to form.

8 BY MR. HAWKINS:

9 Q. I'll rephrase because it is compound. I'm
10 sorry.

11 Just focusing on paragraph 185, it seems to
12 say that the hardware circuits in the upper portion of
13 Figure 2C need to somehow incorporate into the figures
14 of Chen but that it's lacking, from the petition; is
15 that right?

16 A. The petition cites Richardson suggests a
17 conventional practice of monitoring the time of the
18 jump starting current and then says a POSITA would have
19 been motivated to implement Chen's relay K1 for the
20 switching.

21 I did not see in the petition where it has
22 explained how the -- that there is a sensor in the upper
23 portion of 2C of Richardson and Figures 1, 2, and 4 of
24 Chen. That's what 185 says. I believe earlier I may
25 have used the word "fit." I misspoke, just rereading

1 here what's in the actual declaration.

2 Q. And so without a showing of how that hardware
3 circuit incorporates into the figures of Chen, there
4 can't be an obviousness combination.

5 MR. PATARIU: Objection. Foundation.
6 Objection. Form.

7 THE WITNESS: So specifically in 185, it says
8 there's no current sensor in -- so the petition does not
9 explain the hardware circuits in the upper portion of 2C
10 in Richardson and Figures 1, 2, and 4 of Chen can be
11 performed to -- combined to perform the functions as
12 operated in this portion of Figure 7. It says
13 specifically. So I'm getting to the details here in my
14 declaration.

15 There is no current sensor in the upper
16 portion of Figure 2C in Richardson and Figures 1, 2, and
17 4 of Chen. Figure 7 of Richardson is describing a
18 measuring of current, and I believe it's
19 500 milliseconds.

20 BY MR. HAWKINS:

21 Q. And without that incorporation of that
22 hardware circuit and the figures of Chen, the resulting
23 combination couldn't have been accomplished; correct?

24 MR. PATARIU: Objection. Form.

25 THE WITNESS: So the Figure 7 discusses in 308

1 measuring a current above a maximum limit for
2 500 milliseconds. And to perform that functionality,
3 you would need to measure a current for -- and compare
4 it to a limit and measure time for 500 milliseconds.

5 And so in 184, I'm saying when I look at the
6 petition, I see the citation for 500 milliseconds, but I
7 don't see the identification of current sensor, the
8 detection of above a maximum value in the combination of
9 the embodiment of Chen and Richardson.

10 All I see in the petition is a POSITA would
11 have been motivated to implement Chen's relay K1 so that
12 the switching module ceases the jump starter current
13 after a predetermined time. Richardson is measuring --
14 it's not just a predetermined time. It's measuring a
15 current. And so I didn't see that discussed in the
16 petition. And that is what I'm pointing to in 185.

17 BY MR. HAWKINS:

18 Q. And those structures to accomplish the
19 functions of operations of the cited portion of
20 Figure 7, those structures of Figure 2C need to be
21 somehow incorporated into Chen's figures.

22 Is that the right way to characterize your
23 position?

24 MR. PATARIU: Objection. Form.

25 THE WITNESS: So Richardson says in 308 I'm

1 measuring the current, I'm detecting a limit, and when
2 is it overlimit for 500 milliseconds. And I did not see
3 how that functionality was disclosed in Figures 2C and
4 Figures 1, 2, and 4 of Chen.

5 BY MR. HAWKINS:

6 Q. Is there a way to accomplish that
7 functionality from 308 that you just quoted without
8 using the hardware circuits in the cited upper portion
9 of Figure 2C of Richardson?

10 MR. PATARIU: Objection. Form. Objection.
11 Foundation.

12 THE WITNESS: I don't believe I've, in my
13 declaration, discussed how 308 would be achieved in
14 Richardson. What I am speaking of is that in the
15 petition, there's no explanation of how Figure 2C
16 enables current detection and is in the parts of Chen
17 and Richardson that disclose the current sensor and
18 detecting it above a threshold for 500 milliseconds --
19 500 milliseconds above a threshold.

20 BY MR. HAWKINS:

21 Q. If you wanted to take that suggestion in
22 Richardson's 308 and implement it as a person of
23 ordinary skill, would there have been multiple options
24 of doing that?

25 MR. PATARIU: Objection. Form. Objection.

1 Foundation.

2 THE WITNESS: I think -- I go back to my
3 paragraph 185 has looked at the petition on pages 44 and
4 45 and looked at what was discussed as the combination
5 for obviousness. And my opinion was -- in 185 was that
6 the function of the operations cited in Figure 7 require
7 measuring a current. There was not an identification in
8 either Richardson or Chen of measuring a current in the
9 petition on page 44 and 45.

10 BY MR. HAWKINS:

11 Q. Okay. I'd like to refer now to paragraph 190
12 to 192. Here you're referring to the Inskeep grounds.
13 Paragraph 190, you cited to the petition, pages 53 to
14 56, and then also paragraphs 159 to 161 of the Woods
15 declaration. I want to take a look at that part of the
16 petition, page 55 of the petition, real quick.

17 So on page 55 of the petition, it refers to
18 the, quote, lower-current path to the USB port and the
19 DC port 112.

20 Do you see that?

21 A. I do, in the center of the page, yes.

22 Q. And then at the bottom of the page, again, it
23 refers to the lower-current ports 104 and 112.

24 Do you see that portion, where the petition is
25 referring to both ports 104 and 112?

1 A. I do see that in the paragraph, 104 and 112.

2 Q. And then continuing on with that paragraph,
3 kind of at the top of page 56, the final sentence of
4 this element 1.3, I just want to make sure that all this
5 evidence that's cited here was considered. It's citing
6 to Inskeep paragraph 32 and 34 and Figure 3 and then
7 also Dr. Woods' declaration at paragraphs 161 and 26.

8 When forming your opinions about the
9 Inskeep-Johnson grounds, did you consider all of this
10 evidence?

11 MR. PATARIU: Objection. Foundation.

12 THE WITNESS: I considered -- in paragraph 190
13 of my declaration, I cite to the Woods declaration, 159
14 to 161, and so those were part of my consideration, as
15 well as the petition, 53 and 56, which I think we
16 already referred to there. And so looking at the
17 petition, I see there's also a citation to Woods 161,
18 which I also cited to.

19 BY MR. HAWKINS:

20 Q. Of course. Inskeep's paragraphs 32 and 34,
21 did you consider those when forming your opinions about
22 the Inskeep-Johnson grounds?

23 A. I considered what is in the petition. I don't
24 think I cited to 32 and 34. However, I think much of
25 the language of 32 and 34 is in the petition paragraphs

1 itself.

2 Q. So when the petition talks about the evidence
3 that the 500-amp jump starter current is an amperage far
4 exceeding Inskeep's normal conventional cigarette-style
5 plug, do you disagree with that?

6 A. I agree that the 500 amp instantaneous far
7 exceeds -- 500 amps instantaneous on, 5 seconds 300 amps
8 off far exceeds the USB power. I note that there's no
9 disclosure of what the 12-volt output port's amperage
10 is.

11 Q. So I'm asking more specifically about
12 Inskeep's teaching that it's a conventional
13 cigarette-style plug with a 12-volt DC. So I'll ask the
14 same question.

15 Do you agree that a 500-amp jump starter
16 current far exceeds a normal, quote, conventional
17 cigarette-style plug for a DC 12-volt output?

18 A. I don't know what the current capacity of
19 Inskeep's 12-volt style plug -- cigarette-style plug is.
20 And that's what I state in my paragraph 190.

21 Q. Do you believe a person of ordinary skill in
22 the art would read Inskeep's teaching and believe that
23 6000 watts of power are delivered through a conventional
24 cigarette-style plug?

25 MR. PATARIU: Objection. Foundation.

1 Objection. Form.

2 THE WITNESS: Once again, Inskip doesn't
3 discuss the current capability of the 12 volts. It is a
4 heavy-duty battery-powered system. I don't know what
5 the current-carrying capability is of their
6 cigarette-style plug.

7 BY MR. HAWKINS:

8 Q. And I guess I'm asking, if somebody was
9 reading Inskip's teaching and they're not an automaton
10 but instead a person of ordinary skill, would they
11 consider that these conventional cigarette-style plugs
12 to power accessories would output 6000 watts of power?

13 MR. PATARIU: Objection. Form. Objection.
14 Foundation.

15 THE WITNESS: Once again, the cigarette-style
16 plug is something specific to Inskip. And it doesn't
17 disclose what the current is. I don't know what the
18 current would be. If I look at Figure 3, you know, the
19 configuration is the same as in the '506. There's a DC
20 output at 12 volts. There's a fuse F2 connected to a
21 battery. And so my opinion in 190 is I don't know what
22 the current output of that port is.

23 BY MR. HAWKINS:

24 Q. So Inskip was filed back in 2010. Back then,
25 the cigarette-style plugs were used a lot of times.

1 You'd plug it into your cigarette lighter of your car
2 and charge your phone.

3 Have you ever seen one of those plugs before?

4 A. In a car, yes.

5 MR. PATARIU: Objection to form.

6 BY MR. HAWKINS:

7 Q. Have you ever used one of those before?

8 A. I have charged a phone in a cigarette-lighter
9 outlet.

10 Q. When you connected that plug, do you think it
11 was outputting 500 amps of current?

12 MR. PATARIU: Objection. Form. Objection.
13 Foundation.

14 THE WITNESS: When I used it to charge the
15 phone, firstly, the device I plugged into the cigarette
16 lighter in the automobile had a power and current limit
17 built in. So I actually don't know what the capability
18 of that cigarette plug in the automobile was. But in
19 addition, once again, we're talking about a battery
20 system with a high-powered battery, not a plug exactly
21 as configured in the automobile.

22 BY MR. HAWKINS:

23 Q. Oh. So you believe that Inskeep's port in
24 Figure 4 of Inskeep -- I'm showing this -- the port 112
25 is different than the traditional cigarette

1 lighter-style plug that was used at the time.

2 MR. PATARIU: Objection. Form.

3 THE WITNESS: So I'm old enough to know when
4 cigarette-lighter plugs were for cigarette lighting.
5 And so I'm familiar with those in automobiles. And so
6 what I see disclosed in Inskeep is this is the -- this
7 is a plug after that style. And that's all that Inskeep
8 says.

9 So I don't understand it as it's an
10 automobile -- as it's configured in an automobile, but
11 rather it's a plug that's on Inskeep's device that's
12 made after the style of those old cigarette-lighting
13 plugs.

14 BY MR. HAWKINS:

15 Q. Do you believe that it was capable of
16 receiving one of those cigarette-lighter plugs and
17 charging a mobile phone or other accessory?

18 MR. PATARIU: Objection. Form. Objection.
19 Foundation.

20 THE WITNESS: I believe your question was,
21 would I expect, if I took the USB phone charger that was
22 compatible with a cigarette-style plug and stuck it into
23 Inskeep, hypothetically, would that charge a battery,
24 charge the phone.

25 Inskeep discloses a 12-volt DC power port. It

1 doesn't disclose how much current it can output. Given
2 the low power of a phone, I would not consider it
3 inoperable with Inskeep. But once again, you know, this
4 is at a very low 10 watts. Inskeep doesn't tell us what
5 the power or current capability of the port is. So I
6 couldn't say more than I wouldn't be surprised if my
7 phone charged.

8 BY MR. HAWKINS:

9 Q. I'd like to take a look at paragraph 192 of
10 your declaration, again in the context of the
11 Inskeep-Johnson grounds. In here you're referring to
12 Inskeep's teaching for a, quote, low voltage protection
13 circuit, end quote, for the USB port.

14 So during normal operation of Inskeep's USB
15 port, when you plug in a properly functioning USB
16 device, it would draw around 5 volts; correct?

17 A. I would correct that and say, in general, my
18 understanding is that Inskeep is providing power. So I
19 believe Inskeep discloses USB, and at the time that
20 would include 5 volts.

21 So if I plugged something in, I would expect
22 the USB port to provide at least 5 volts, at least
23 being -- I think at that time, 5 volts was one of the
24 only voltages. There may have been other voltages that
25 were possible. But 5 was one that I believe all the

1 standards supported.

2 Q. Now, if there was a damaged component or a
3 short-circuit that somehow caused a momentary very high
4 power current draw from that connection, many times
5 higher than a standard USB current output, would that
6 cause a momentary drop in the voltage too?

7 MR. PATARIU: Objection. Form. Objection.
8 Foundation.

9 THE WITNESS: So I think you're asking if I
10 have a USB port that operates according to the USB
11 standard, those ports will provide current. And I think
12 your question is if you put in a load, the circuit in
13 Figure 3 will work to try to provide enough power to get
14 to 5 volts. I haven't analyzed the specific circuit
15 there to see how much output power it would output.

16 BY MR. HAWKINS:

17 Q. And my question was a bit deeper, which is,
18 there is a load or a current draw in some sort of
19 short-circuit or damaged component system that could
20 have actually induced the voltage to drop momentarily;
21 is that correct?

22 MR. PATARIU: Objection. Form. Objection.
23 Foundation.

24 THE WITNESS: In general, in any power circuit
25 like a USB, if you put a load on it, the voltage will

1 drop some amount. If it's a high load, it may drop more
2 and then recover, or it may just stay at the slightly
3 lower voltage.

4 BY MR. HAWKINS:

5 Q. I'd like to go back up and refer to
6 paragraph 101 of your declaration. So in this
7 paragraph, you include a table that compares the claim
8 language of claim 1 to the Chinese patent application in
9 the priority claim. And I wanted to ask a couple of
10 questions about this table.

11 The first is, did you perform a similar
12 comparison to the claim language of claim 1 to the
13 disclosure of the immediate parent of the '506 patent,
14 which was cited in the IPR petition as Exhibit 1004?

15 A. So in table -- sorry. In paragraph 101, I do
16 a comparison of the text of the '506 with respect to a
17 number of the parent documents of the '506.

18 And so the first one is the '190.9, which is
19 the Chinese, I believe, patent, patent application. And
20 then I believe that in -- let's see. We did 101. Just
21 a moment. And then in some of the other claims -- for
22 instance, claim 9, I cite to the U.S. application
23 15/141,841.

24 So in the tables I show the document that I'm
25 comparing the text against for each one of the claims.

1 And there's at least two documents. There may have been
2 a third in that table.

3 Q. And so do you think the text of the parent
4 application in Exhibit 1004, which you do mention in the
5 context of claim 9, is the same as the text in the
6 Chinese translation that you analyzed in paragraph 1?

7 A. I'm sorry. Did you say claim 1 or
8 paragraph 1?

9 Q. I'm sorry. Paragraph 101.

10 A. Okay.

11 Q. So really there's -- you have Exhibit 2003,
12 which is the Chinese translation.

13 A. Yes.

14 Q. You have Exhibit 1004, which is the immediate
15 parent of the '506 patent.

16 And my question is, between Exhibit 1004 and
17 2003, do you believe the text is the same?

18 MR. PATARIU: Objection. Form.

19 THE WITNESS: My analysis in paragraph 101 was
20 the text against the Chinese application number ending
21 in 190.9. I don't have in my declaration a comparison
22 of the text versus -- I believe the application you're
23 referring to is the 141,841. For claim 1, my comparison
24 is with the Chinese application.

1 BY MR. HAWKINS:

2 Q. And so after that application was filed, years
3 later, that's when they filed the first U.S.
4 application, which is shown in Exhibit 1004. And it
5 includes different text than the Chinese application,
6 and I'd like to walk through a couple of examples
7 briefly just to make sure we're on the same page.

8 So if you look at Exhibit 1004. At one point
9 in time, I had it. Here we go. And then if we look at,
10 for example, paragraph 22. After they filed the Chinese
11 case, they filed this translation in the U.S. And if
12 you look, for example, in paragraph 25, it brings up the
13 idea that the protection circuit 11 is connected to
14 the --

15 A. I'm sorry to interrupt. Just to help out,
16 you're in --

17 Q. I'm in Exhibit 1004.

18 A. Yeah.

19 Q. Looking at paragraph 25. And there it says
20 the charge-discharge protection circuit 11 is connected
21 to the set of batteries for overcurrent or overload
22 protection.

23 And then if I look at your paragraph 101, in
24 the context of element 1.2, it's quoting from the
25 Chinese application and saying that it is "and overload

1 protection." So I've got to find where that is. So
2 there was -- oh, there it is. 1.4. They filed this in
3 2001. "Overcurrent and overload." Later on, they filed
4 a U.S. case, and they switched it to "overcurrent or
5 overload protection."

6 And there's other examples of this, of course,
7 the text that you rely upon in terms of this sentence
8 relating to flexibly chooses different. And so I guess
9 my question is just off the top -- here's my question.

10 Do you agree the translation provided by the
11 patent owner when filing the parent application, which
12 is shown in Exhibit 1004, is different from the
13 translation that the patent owner provided in this
14 proceeding in Exhibit 2003?

15 MR. PATARIU: Objection. Foundation.
16 Objection. Form.

17 THE WITNESS: To clarify, you're asking, is
18 the text of Exhibit 1004 different than the text of
19 2003?

20 BY MR. HAWKINS:

21 Q. That is correct.

22 A. I think, as a preliminary, is the text
23 identical, word for word? I haven't checked that to see
24 if it is word for word.

25 In the table 101, what I was doing is looking

1 for support for the claim limitation, so a first
2 protection circuit coupled to the battery pack and
3 configured to protect the battery when the battery pack
4 is working in the first operating mode.

5 And I think you cited the first paragraph on
6 46, page 46. "To ensure safe charging and discharging
7 of the battery pack, the lithium iron phosphate or
8 lithium cobalt oxide battery pack 1 is connected to a
9 protection circuit 11 that provides overcurrent and
10 overload protection." So that's the 2003.

11 And then, Exhibit 1004, you say for the
12 purpose -- this is paragraph 25. For the purpose of
13 ensuring safety in the process of charging or
14 discharging the set of batteries 1, a charge-discharge
15 protection 11 -- same number in both -- is connected to
16 the set of batteries 1 for overcurrent or overload
17 protection.

18 And the 2003 says what it -- sorry.
19 Exhibit 2003, Exhibit 1004, the paragraphs have the text
20 that they have in them. With respect to supporting 1.4,
21 1.4 is requiring a protection circuit for the first
22 operating mode. 1004, Exhibit 1004, paragraph 25, talks
23 about a protection circuit, overcurrent or overload
24 protection. 2003 talks about a protection circuit that
25 provides overcurrent and overload protection.

1 They seem to both support the 1.4 of having a
2 protection circuit. So I'm not sure if it's a language
3 question you're asking me or if there's a technical
4 piece that I'm missing.

5 Q. Well, for example, on paragraph 107, line 2
6 requires the overcurrent and overcharge language. And
7 my question is, in 2011, they provide a first text. And
8 when they go to the U.S., they provide a translation
9 which does not include "and." And then years later than
10 that, they still don't have this text from the Chinese
11 application. Instead, they're referring to the
12 immediate parent. And then they add more columns to it.

13 My question is, what leads you to believe that
14 this text in the Chinese application, which is absent
15 from both of the U.S. applications, provides support for
16 the claim?

17 A. Looking at the '506, on the face, it
18 describes, as everyone knows, the dates and the related
19 applications. It cites the foreign application priority
20 date of the '190, which I believe I'm citing to in
21 claim 1.

22 And I think your question is, does the Chinese
23 translation of the '190 have the exact same language as
24 some of the other documents in the chain, like the PCT,
25 the '728 and the '986 and then finally the '841

1 application. I haven't looked at the word-for-word
2 comparison with those. I just looked at the claim
3 limitation and then the foreign application priority
4 date document, the Chinese application.

5 Q. Okay. So let's return to paragraph 101 and
6 focus now on element 1.2. There the claim language that
7 you have quoted describes "a first current through one
8 or more output ports."

9 Now, does the word "port" appear anywhere in
10 the text of the Chinese application text that you cited
11 in the right side of this table?

12 A. I don't believe the word "port" is in the text
13 description, but Figure 1 of that Chinese document shows
14 outputs of the DCs, and "port" is just a descriptor for
15 output, where the output goes through. So I'm looking
16 at the arrows in Figure 1. Those are where the output
17 goes through an output -- an output and output ports.
18 They leave the device. That goes through a port.

19 So I do agree the word I don't believe is in
20 the text, but I understood Figure 1 to be disclosing a
21 port. So that's an output from the DC system.

22 Q. I see. So maybe to follow up on that real
23 quick, those arrows that you mentioned in Figure 1, that
24 are also shown in Figure 3 of the '506 patent, if, say,
25 a charger device doesn't have a port structure but

1 instead its output is a cable with a male jack on the
2 end, say a cigarette-style lighter male jack, is that a
3 port?

4 MR. PATARIU: Objection. Foundation. Object
5 to form.

6 THE WITNESS: I believe what you're asking
7 about is -- let me rephrase. So for a POSITA, that
8 would be how the current export exits the device. And
9 we think about exiting one device, going to something
10 else. A port is sort of that idea of an exit. Whether
11 it's a connector or it's a cable going out, it's leaving
12 a device.

13 And so I mean I see from the Chinese
14 application that this is a device that's going to have
15 power that's going to go out to, you know -- I believe
16 it refers to a phone, a computer, and a camera also. So
17 I wouldn't understand that this is going to be hardwired
18 to one of those. There would be some interface between
19 the DC-to-DC 19 volt, 12 volt, and 5 volt and whatever
20 it's attached to. And that's what those arrows
21 represent. So to me --

22 BY MR. HAWKINS:

23 Q. I guess what I'm saying is -- what I'm saying
24 is let's say the 19 volt just had a male jack that you
25 could just plug directly into a computer. That's the

1 output arrow, is that male jack for mating for your
2 computer.

3 Is that a port?

4 MR. PATARIU: Objection. Foundation.
5 Objection. Form.

6 THE WITNESS: The current's leaving the
7 device, into another device, and when it exits the
8 device, we commonly refer to those as ports.

9 BY MR. HAWKINS:

10 Q. I see now.

11 Do you see -- again, referring to here on
12 page 44 of your declaration, the "first current through
13 one or more output ports," my question is, do you see
14 any disclosure in the text of the Chinese application
15 that you quoted on the right side where the 0.5-amp
16 current for the standard USB is output through multiple
17 ports, plural?

18 A. I believe your specific question is, does
19 Exhibit 2003 talk about multiple USB ports? I mean it
20 certainly talks about multiple ports. It's got a 19, a
21 12, and a 5. I don't see specific multiple USB or
22 5-volt outputs. I see the one disclosed, along with the
23 other multiple outputs of 19 and 12.

24 Q. Just to be clear, based upon your previous
25 testimony, the 5-volt USB has the first amperage, the

1 12-volt USB would have a different amperage, and the
2 19 volt would have a third amperage; correct?

3 MR. PATARIU: Object to form.

4 THE WITNESS: No. That's incorrect. The
5 5 volt would have 5 volts. The 12 volts would have
6 12 volts. The 19 would have 19 volts. I was referring
7 to the voltage of the ports to identify them.

8 BY MR. HAWKINS:

9 Q. Correct. But it's not the same value of
10 current being output from each of those three arrows in
11 Figure 1 of the Chinese application or Figure 3 of the
12 '506 patent; correct?

13 MR. PATARIU: Objection to form.

14 THE WITNESS: The current outputting from the
15 19, the 12, or the 5 is dependent upon what's attached
16 to it. You could attach a load to each, and they'd all
17 draw exactly half an amp. So it depends on what the
18 user's going to attach to them to what the current is
19 that's going to flow.

20 Even with a USB, if you have two USB ports,
21 they're not going to provide the same current,
22 necessarily. It depends on the load. They can. But it
23 can be different.

24 BY MR. HAWKINS:

25 Q. So if I have two USB ports and I put a half a

1 milliamp through one and I put -- I'm sorry -- a half of
2 an amp through one and 2 amps through another, is that a
3 first current through multiple ports, plural?

4 MR. PATARIU: Objection. Foundation.
5 Objection. Form.

6 THE WITNESS: So the claim 1.2 requires at
7 least one output port, and that output port should be
8 coupled to the battery pack, and the battery pack is
9 configured to output a first current through one or more
10 output ports of the at least one output port in a first
11 operating mode.

12 So it has to be capable of having one output
13 port connected to the battery. That output port's
14 configured to output a first current through one port of
15 at least one output port in the first operating mode.
16 The claim allows for more ports, but certainly one port
17 is considered in the claim --

18 BY MR. HAWKINS:

19 Q. Correct.

20 A. -- I think.

21 Q. So there's two species that are recited here;
22 right? There's a first current through one port, and
23 there's a first current through multiple ports. I'm
24 asking about the second species. Let's set the first
25 species aside.

1 For the second species, a first current,
2 singular, through multiple ports, plural, is there any
3 example of that in the text you've cited on the right
4 side of this column?

5 MR. PATARIU: Objection. Foundation.
6 Objection. Form.

7 THE WITNESS: Yes. So the text on the right,
8 it references the 5-, the 12-, and the 19-volt output
9 ports. And if we look at Figure 1, we see that the
10 three of them are connected to the protection circuit
11 11.

12 So any one of these, as an individual, would
13 be the at least one port. If two of them are operating,
14 you could have two output ports. And it's the battery
15 pack that's outputting the current. And so it would
16 output a current that would go to the two outputs.
17 Those two outputs' summed-together current would be the
18 battery current that's coming.

19 BY MR. HAWKINS:

20 Q. So maybe I want to make a more concrete
21 example.

22 Again, we talked about this. In
23 paragraph 105, the very last line, page 49, you give
24 three examples of, you know, when we read this '506
25 patent, we know when you say 12 volts, an example of

1 that's 10 amps. When you say 5 volts, an example of
2 that's 2 amps. And when you say 19 volts, an example of
3 that is 3.5 amps.

4 So in this example that you gave, let's assume
5 those are the values now for those output arrows in
6 Figure 3 of the '506 or Figure 1 of the Chinese
7 application; right? That's the voltage and amperage.

8 And so what I'm trying to get my head around
9 is, are those three different currents, or is 10 amps
10 the same current as 2 amps?

11 A. Okay. So the first part, the reference to
12 12 volts, 10 amps; 5 volts, 2 amps; 19 volts,
13 3 1/2 amps, those are generally examples of the maximum
14 current from those ports. So that's generally a -- it
15 will supply up to that, is the first part. That's what
16 I meant by the 19/3.5 amps, is it can provide 0 up to
17 3 1/2. So any current in between there.

18 And I think the second part, to answer your
19 question, is the claim is at least one output port --
20 you could have more -- coupled with a battery pack,
21 wherein the battery pack is configured to output a first
22 current through one or more output ports.

23 So if I look at Figure 1 in the Chinese
24 application, I see battery pack. I see a protection
25 circuit associated with current that's flowing out of

1 the battery pack, and that will flow into the 19, the
2 12, and the 5, depending on their current needs.

3 And so I see that disclosing the first current
4 where the battery pack's configured to output a first
5 current through one, like the 19 volt, or more, the 19
6 and the 12 volts, in the first operating mode, and those
7 are completely separate from the high-current path,
8 which is disclosed on the bottom left of Figure 1,
9 through the fuse.

10 Q. So I don't know if we quite got my question
11 answered.

12 Let's assume each of these are outputting the
13 maximum amperage that you said. And the claim requires
14 that the current is not merely output from the battery
15 pack. It must be the current that is through multiple
16 ports, plural, in this species.

17 My question is, if each one of those arrows is
18 putting out a different amperage, is that an example of
19 only the first species, one current is going through one
20 port, or is that an example of one current going through
21 multiple ports?

22 MR. PATARIU: Objection. Foundation.
23 Objection. Form.

24 THE WITNESS: In Figure 1, we have the battery
25 pack. The battery pack has a protection circuit 11

1 that's connected to the current output from the battery
2 pack. That current output is divided between the 19,
3 the 12, and the 5. And when I say "divided," whatever
4 those are using, it will be appropriately divided.

5 And so when I look at the claim, it says the
6 battery pack is configured to output a first current
7 through one or more output ports. I understand that the
8 battery pack, if you will, on Figure 1 -- perhaps it
9 may -- I think I have this annotated.

10 If you look at paragraph 96, the figure below,
11 you'll see an annotation, and I have a red arrow coming
12 out of the set of batteries. It's a different figure,
13 but it matches Figure 1 of the Chinese one. And so
14 if -- in that Figure 3, if the 12 volt had output
15 current, it outputs from the set of batteries.

16 BY MR. HAWKINS:

17 Q. Through the port.

18 A. Say it again?

19 Q. Through that port. Right? The claim requires
20 through that port. And that's my question. Let's
21 assume everything you said about the set of batteries
22 and the discharge circuit and it being divided the way
23 you characterize it.

24 A. Right.

25 Q. Hundred percent. Fine. I think we're all on

1 the same page. You've said that several times now. But
2 the claim is talking about a current through ports.

3 And my question is, if each one of those
4 arrows is putting out a noticeably different amperage,
5 do you consider that a singular current?

6 MR. PATARIU: Objection. Form. Objection.
7 Foundation.

8 THE WITNESS: In such a system, there will be
9 a singular current coming out of the battery that
10 supplies those three, and that current then flows out of
11 each of the ports.

12 BY MR. HAWKINS:

13 Q. So in claim 1, the claimed first current can
14 simultaneously be 2 amps, 3 1/2 amps, and 10 amps;
15 correct?

16 MR. PATARIU: Objection. Form. Objection.
17 Foundation.

18 THE WITNESS: No. I'm sorry. That's not what
19 I'm saying.

20 BY MR. HAWKINS:

21 Q. Okay.

22 A. I'm saying --

23 Q. Please explain.

24 A. The sum of the current from the 19, the 12,
25 and the 5 volts together come together and come out of

1 the battery.

2 Q. The sum of those output through multiple
3 ports.

4 The entire sum, when I add up all of that, is
5 all output through multiple ports?

6 Because the claim requires the current through
7 the ports, and you are talking about the current prior
8 to reaching the ports. And I want to make sure we're
9 all on the same page about -- those ports are outputting
10 noticeably different amperages in this example. You
11 gave the example of the maximum of 2 amps, 3 1/2 amps,
12 and 10 amps.

13 Can a first current output through the ports
14 be simultaneously different amperages?

15 A. Okay.

16 MR. PATARIU: Objection. Form.

17 THE WITNESS: Claim 1.2, "wherein the battery
18 pack is configured to output a first current." It does.
19 Current comes out of the battery pack. That first
20 current is going to go through one or more output ports.
21 If just the 19 volts is on, the current coming out of
22 the battery will just go through the 19 volts.

23 If the 19 and the 12 volt's on, then the
24 current that's coming out of the battery pack -- the
25 battery pack is configured to output a first current.

1 So the first current is going to go out through more
2 than one output port, through the 19-volt port and
3 through the 12-volt port. But we still have a first
4 current coming out of the battery. It's just exiting
5 through multiple ports instead of one port.

6 BY MR. HAWKINS:

7 Q. And it exits through multiple ports at
8 different amperages; correct?

9 MR. PATARIU: Objection to form.

10 THE WITNESS: In the hypothetical that you've
11 given where 19 volts is sourcing 3 1/2 amps and 12 volts
12 is sourcing 10 amps, 12 volts would have 10 amps.
13 19 volts would have 3 1/2 amps. Those are different
14 numbers. But there's a singular current coming out of
15 the battery as a first current.

16 BY MR. HAWKINS:

17 Q. Okay. I think I understand your
18 understanding of first current now. Return to
19 paragraph 101, element 1.4. There's the language --
20 actually, 1.4 is on page 45, but it extends onto 46 of
21 your declaration. And there's that qualifying language
22 of "when the battery pack is working in the first
23 operating mode."

24 The text on the right side of this column,
25 does it describe that the first current is inhibited

1 anywhere?

2 A. I know we've discussed the word "inhibit"
3 earlier today. If you're asking is the word "inhibit"
4 on the right side, no. But I'm not sure that's exactly
5 the question you're asking.

6 Q. That's an accurate answer. I will rephrase.

7 Which text on the right side of element 1.4 is
8 referring to the second current being inhibited?

9 A. The text on the right is describing the first
10 protection circuit, which is configured to protect the
11 battery pack when operating in the first mode. So the
12 language on the right is put in to show support for --
13 there's a first protection circuit, and it's configured
14 to protect the battery when operating in the first mode.

15 As we discussed earlier, limitation 1.4, the
16 description of "first operating mode," we've talked
17 about that in my earlier claim construction. What's on
18 the right is only talking about the protection circuit
19 and it being configured to protect the battery. That's
20 all I wrote on the right side of 1.4.

21 Q. So there you're referring to Figure 1,
22 reference No. 11. And I believe that's the same No. 11
23 that's in Figure 3 of the '506 patent, the
24 charge-discharge protection circuit. If we look at that
25 item 11 in Figure 3 -- I think you actually -- we can

1 scroll up to page 41 of your declaration. Figure 3 is
2 there.

3 If we look at that item 11 in Figure 3 of the
4 '506 patent, is the protection circuit 11 shown in this
5 figure as being in parallel to the battery 1?

6 A. Figure 3 --

7 MR. PATARIU: Objection to form.

8 THE WITNESS: Figure 3's a -- I believe we
9 discussed earlier was a schematic of a block -- let me
10 just be accurate. Figure 3 is a schematic block
11 diagram.

12 So I look at the protection, charge-discharge
13 protection. This block just has two inputs. So it's
14 got an input from the left side for the charge circuits,
15 and it's got an input from the output, so it can monitor
16 and protect against the charger malfunctioning and the
17 discharger malfunctioning.

18 So I don't think a POSITA would interpret this
19 as a literal in parallel but rather two inputs from the
20 input and output of the batteries to do the charge
21 protection and discharge protection.

22 BY MR. HAWKINS:

23 Q. I see. So from this schematic, is the
24 protection circuit 11 in Figure 3 operating even when
25 the battery pack is not outputting the first current?

1 A. So it is a charge-discharge protection
2 circuit. And so it's monitoring the output. It can
3 perform other functions. In 11, it's monitoring the
4 output to -- we're looking at -- column 5. I mean it
5 describes 11 as the first protection circuit is used to
6 protect the battery pack when the current output through
7 the output ports -- when the current is output through
8 the output ports.

9 So that's -- in the figure, it's showing a
10 connection to the output of the battery, and it
11 describes that it's protecting -- it's a protection
12 circuit when current is output through the output ports
13 103, which we discussed earlier would operate in a first
14 mode of operation.

15 MR. PATARIU: Counsel, we've been on the
16 record for a little bit over an hour on this segment.

17 Can we take our next break?

18 MR. HAWKINS: Yeah. Now is great. We can
19 take a 10-minute break. Thank you, everyone.

20 MR. PATARIU: Thank you.

21 (Recess)

22 BY MR. HAWKINS:

23 Q. So I think I would like to turn to
24 paragraph 212 of your declaration. This relates to the
25 Nook reference. So in 212, you're talking about Nook

1 and a second protection circuit.

2 And in particular, there's a quote. I'll
3 highlight it for you. Right here. You're saying Nook's
4 protection circuit, quote, does not measure any current,
5 comma, and thus does not constitute a prevention of an
6 overcurrent. And I want to make sure I understand your
7 position here.

8 Does the claim's second protection circuit
9 require a circuit that measures a current?

10 A. Claim 1.5 states the second protection circuit
11 is coupled with a battery configured to prevent
12 overcurrent condition. I understand that as the current
13 going over a threshold, as opposed to an overpower
14 condition or some other condition; that this is
15 specifying the parameter measured as currents, and
16 overcurrent would be when it goes above some allowable
17 threshold.

18 Q. So I think that makes sense.

19 What you're saying is Nook doesn't measure any
20 current and that the way you're reading overcurrent is
21 that that parameter has to be measured or compared to a
22 threshold; is that correct?

23 A. That is my understanding of "overcurrent."

24 Q. I see. So in paragraphs 212 through 214, you
25 walk through each of the three cited protection circuits

1 of Nook, and you concluded -- I think the language you
2 used might be that -- well, here. I'll highlight it in
3 paragraph 213. None of them will, quote, protect
4 against an overcurrent condition.

5 Is that your conclusion for all three of the
6 examples of Nook that are in 212, 213, and 214 of your
7 declaration?

8 A. So I identify these three overcurrent
9 descriptions in the petition, the first one being the
10 MCU, the second being temperature, and the third being
11 the diodes. That's in paragraphs 212, 213, and 214.
12 And I believe the petition, at 73, says that Nook
13 discloses three examples. And the three examples cited,
14 it was my -- it is my opinion that they don't meet the
15 requirement of an overcurrent detection.

16 Q. So if that conclusion's true, Nook's original
17 charger, in your view, could have an overcurrent problem
18 when it's connecting Nook's cables and trying to do a
19 jump start scenario; is that correct?

20 MR. PATARIU: Objection. Foundation.
21 Objection. Form.

22 THE WITNESS: So I think it's important to
23 separate whatever might actually be realized based upon
24 Nook's knowledge separate from the patents. I'm just
25 looking at what's inside of the patents. And what's

1 inside of the patent, the petition cited three pieces
2 for overcurrent, three protection scenarios. I didn't
3 believe any one of those three met the limitation of
4 overcurrent.

5 BY MR. HAWKINS:

6 Q. And so maybe just to make sure I understand,
7 Nook would protect against the overcurrent that is
8 lacking right now, in your view, if you took a fuse,
9 like mentioned in Figure 3 of the '506 patent, and put
10 that into Nook's cable; is that correct?

11 MR. PATARIU: Objection. Foundation.
12 Objection. Form.

13 THE WITNESS: With respect to claim 1.5, which
14 requires the second operating mode, which would be
15 through the jump starter output of Nook, it needs to
16 have a second protection, which prevents overcurrent.

17 So if Nook were to add to its specification,
18 its description, some additional feature that did the
19 overcurrent and then that operated in the way of the
20 rest of the claim, it would be a second protection
21 circuit that measured overcurrent. So if you were to
22 file a new patent and add that in, then that could have
23 an overcurrent protection.

24 BY MR. HAWKINS:

25 Q. And so one example of that would be a fuse in

1 Nook's cable; is that right?

2 MR. PATARIU: Objection. Form. Objection.
3 Foundation.

4 THE WITNESS: I think there's two pieces to
5 that. First is, is a fuse an overcurrent protection?
6 Yes. The '506 teaches that.

7 Would it be physically possible for Nook to
8 write -- forget the legal aspects, but to write a new
9 specification for a new patent and include a fuse as
10 part of that new patent? Yes, he certainly could. I
11 don't think a fuse would make any sense with Nook's
12 disclosure because he has a switch, which I've stated
13 elsewhere. But in a new patent, hypothetically, he
14 could add any kind of overcurrent, including a fuse.

15 BY MR. HAWKINS:

16 Q. And the only reason I'm asking is because I
17 want to make sure -- I think in that scenario, the fuse
18 would then avoid the overcurrent problem that you're
19 saying currently exists in Nook; is that correct?

20 MR. PATARIU: Objection. Foundation.
21 Objection. Form.

22 THE WITNESS: So what I'm stating is claim 1.5
23 requires a second protection that is overcurrent. So
24 that's what 1.5 requires.

25 When I look at Nook, Nook does not disclose --

1 as I reviewed the petition, the three examples that were
2 included, I looked at those three, and I did not -- it
3 is my opinion that they don't disclose overcurrent. So
4 that's my starting -- not starting point. That is my
5 analysis of Nook in 1.5.

6 I think you're asking, could you create a new
7 Nook and could new Nook have additional features, like
8 overcurrent? Yes, it can. Could Nook put a fuse in?
9 Nook could do whatever he wanted, but he could put a
10 fuse in. And a fuse is a form of overcurrent protection
11 in the new Nook, whatever we would call it.

12 BY MR. HAWKINS:

13 Q. I understand. All right. Final questions.

14 Did you speak with Kevin today regarding the
15 substance of your testimony at any time during any of
16 the breaks?

17 A. I did not.

18 Q. Have you ever been convicted of a felony?

19 A. No.

20 Q. And have you ever been convicted of any crime
21 related to acts of dishonesty or fraud?

22 A. No.

23 MR. HAWKINS: I have no further questions
24 today. Thank you.

EXAMINATION

BY MR. PATARIU:

Q. I do have a few questions to go back and talk with you about.

THE WITNESS: Mr. Hawkins, I think you're still sharing your screen. I don't know if you guys want to swap.

MR. HAWKINS: There you go. Sorry.

THE WITNESS: No, no. I just didn't want to be visually confused, looking at something else.

BY MR. PATARIU:

Q. So I wanted to go back to -- you were asked some questions concerning paragraph 66 of your declaration. I'll pull it up on the screen here. So there's a table under paragraph 66 of your declaration, Exhibit 2001, that shows four rows and then what a 5-volt output and the 12-volt output would be on each row.

Do you see that?

A. I do.

Q. Now, in your prior testimony, you used the word "Boolean" with reference to an answer talking about this table. Can you explain what you mean by the term "Boolean" with respect to the table shown under

1 paragraph 66 of your report.

2 A. Yes. First, I'd just like to clarify the
3 tables, the 5-volt output and then 12 volt, 100 to 400
4 amps. So the 12 volt is not a low current. It's a
5 high-current output.

6 So we've got several states or operating modes
7 disclosed by the patent. We've got first operating
8 mode, second operating mode, and a third operating mode.
9 As I discussed earlier, the third operating mode
10 requires both outputs to be enabled. So I can write
11 "enabled" in row 3.

12 So Boolean logic is just I looked for what are
13 all the possible states. I have two inputs, the 5 volts
14 and a 12-volt high current. There's a possibility of
15 four different logical states. And what I do is I
16 account for each one of those.

17 The first operating mode, 5 volts is enabled.
18 High-current output is disabled. The second operating
19 mode, 5 volts is disabled, as an example, high current
20 is enabled. Third operating mode, as discussed in the
21 patent, clearly, is both are enabled. And then it's
22 just a logical completion of that table of two; that you
23 could also have a mode where you're disabled for both.

24 But it's operating mode 1, 2, and 3 that are
25 discussed in the claims of the patent.

1 Q. So if we look at the far right column,
2 12-volt, 100- to 400-amp output, Figure 3, reference 9,
3 do you see that?

4 A. I do.

5 Q. You've got underneath there entries that say
6 "Disabled because fuse is blown" and "Enabled because
7 fuse is not blown," and those are each repeated twice.

8 Do you see that?

9 A. I do.

10 Q. What disclosure in the '506 patent or the
11 priority applications allow you to make that conclusion
12 that those conditions are possible?

13 A. So in column 6 -- this is of the '506 --
14 starting at the paragraph on line, I think, 38, it's
15 describing a second protection circuit, and it's
16 describing, for example, the fuse.

17 If we look at line 44, once overcurrent
18 occurs, the fuse could be melted or burnt out to cut the
19 currents along the path. So that is inhibiting current
20 flow.

21 And then it says "Furthermore, the user may
22 replace the connecting wires with the melted fuse."
23 Also, the fuse protection -- also, the fuse protection
24 structure can be -- it's simple and low cost. So
25 they're talking about the fuse blowing and cutting off

1 the current that is there.

2 And I'll just also mention that it does say,
3 at line 46, furthermore, the user may replace the
4 connecting wires with the melted fuse with a new pair of
5 connecting wires, which is convenient for use. One
6 can -- a POSITA would know, when a fuse blows, it's not
7 inoperable. It just stops the current flow. You go get
8 another fuse. You put it in. And then the fuse could
9 be -- the device could be operable again.

10 Q. Would a POSITA need to rely -- well, sorry.

11 Where did you first hear the term "fuse"?

12 A. In a general sense, I've heard of a fuse
13 40 years ago, working on cars. And when I first worked
14 in industry, we had lots of fuses in our power
15 electronic products.

16 Q. Is the description -- how, if at all, is the
17 description of the operation of a fuse in the '506
18 patent specification different from a POSITA's
19 understanding of what a fuse is or does?

20 A. I don't -- didn't see any difference from the
21 common knowledge a POSITA would have of a fuse.

22 Q. If we look at the 5-volt output column, you've
23 got two entries -- this is in the table under
24 paragraph 66 of your report. You've got two entries
25 here, "Enabled by user" and "Disabled by user," repeated

1 twice.

2 Do you see that?

3 A. I do.

4 Q. What disclosure in either the '506 patent or
5 the priority application indicates that the 5-volt
6 output can be enabled or disabled by the user?

7 A. Column 7, 30 through 41, discusses that the
8 user can flexibly choose a particular output voltage for
9 the charger to supply current to one of the devices
10 listed: A cell phone, a computer, or digital camera.
11 So I understand that that the user can enable the
12 5 volts.

13 Q. If I took a device, a jump starter device that
14 was like the one in the '506 patent or the Chinese
15 priority application, took it out of the box, it was
16 never used, sitting on a table, looking at the modes
17 that are shown in paragraph 66, which modes are possible
18 for use of that device once it's actually used?

19 A. So operating mode -- sorry. The third
20 operating mode can be used with both the 5-volt outputs
21 and the device with an unblown fuse.

22 If something were to happen and the fuse
23 blows, then the user could operate it in operating
24 mode 1, where the fuse is blown but still can get, like,
25 a 5-volt output, as an example.

1 If the user wanted to save power, they could
2 disable the 5 volts. And if the fuse hadn't been blown,
3 if it was just taken out of the box, then they could use
4 the 12-volt high-current output.

5 And then the fourth item in that Boolean table
6 is, you know, if the fuse is blown, the user could still
7 disable the 5 volts.

8 So it could selectively pick any one of those
9 four modes of operation, depending on the current status
10 of the device.

11 Q. You were asked some questions about the
12 Inskeep reference.

13 Do you recall that?

14 A. I do.

15 Q. I'll just pull that up for a moment. So I
16 think that you were asked some questions referring to
17 page 53 of the petition, concerning a conventional
18 cigarette-style plug.

19 Do you see where that's being referenced on
20 page 53 of the petition?

21 A. Just a moment. I do see that reference. Oh,
22 thank you. Thank you.

23 Q. What do you understand the term "conventional"
24 in "conventional cigarette style plug" to refer to?

25 A. "Conventional" would be a mechanical plug.

1 It's a cigarette-style plug, mechanical. The plug is
2 mechanical here. And so it would be of a conventional
3 style, meaning size, spacings, that kind of thing, to be
4 similar to what a conventional cigarette lighter --
5 cigarette-style plug would have been, for instance, in
6 an automobile.

7 Q. What did the petition disclose about Inskeep's
8 disclosure of maximum current-carrying capacity of the
9 DC port, the 12-volt DC port, identified as an -- for an
10 example as a conventional cigarette-style plug?

11 A. The petition didn't identify any current
12 capability of a DC power port.

13 Q. Did Inskeep itself -- what did Inskeep -- what
14 did the Inskeep reference itself say about the maximum
15 current-carrying capacity of the 12-volt power supply?

16 A. Inskeep just described it as a 12-volt DC
17 power port. I did not see a current disclosure in
18 Inskeep, or power.

19 Q. Now, you understand that there is a fuse along
20 the 12-volt path for the DC 12-volt power supply port in
21 Inskeep; right?

22 A. I do. I think it's in Figure 3, F2.

23 Q. What disclosure does Inskeep have about the
24 fuse rating of the fuse used along the 12-volt DC power
25 supply having a cigarette-style plug?

1 A. I didn't see any disclosure of F2 or what its
2 value would be. Rephrase that. I didn't -- I didn't
3 see any disclosure in Inskeep of a current rating of the
4 fuse, the fuse as disclosed in Figure 3.

5 MR. PATARIU: I have no further questions.
6 Thank you.

7 MR. HAWKINS: I'll have one quick recross.

8
9 EXAMINATION

10
11 BY MR. HAWKINS:

12 Q. Going back to the question about paragraph 66.
13 I'll share that here. And really I just want to make
14 sure I understood your answer to his question right.
15 Let's see. Hopefully that paragraph's up. There we go.
16 So paragraph 66.

17 He'd asked you the question he has -- there's
18 a device like what's described in the Figure 3. And you
19 pull it out of the box. There it is. It's brand-new.
20 And he said, which operating modes can this device
21 achieve in that state? And you seemed to answer all
22 four but then seemed to require that it's actually not
23 brand-new out of the box. It's sitting on a table. In
24 fact, something has to be done to it for some of them.

25 So I want to -- again, you have a brand-new

1 device like in Figure 3. It's been built. And you set
2 it on the table. And it's never been used. It's been
3 attached to a car, and it's ready to go, but it's never
4 actually been used to jump-start a car yet.

5 What operating modes can this thing achieve?

6 MR. PATARIU: Objection. Form. Objection.
7 Foundation.

8 THE WITNESS: So with the assumption that out
9 of the box the fuse is not blown, which would be a
10 reasonable expectation, the user could enable or
11 disable, for example, the 5-volt output. So you could
12 operate in operating mode 2 and/or operating mode 3.

13 And then, as I answered before, if, after use,
14 the fuse is blown, the device is still usable because
15 you can go in operating mode 1, where you can enable the
16 5 volts and still use that.

17 BY MR. HAWKINS:

18 Q. I see. So then brand-new out of the box,
19 never used, fuse is intact, that device technically
20 isn't able to operate in operating mode -- first
21 operating mode; correct?

22 MR. PATARIU: Objection. Form.

23 BY MR. HAWKINS:

24 Q. I'll rephrase.

25 That device, brand-new out of the box, with

1 the fuse intact, that charger will not operate in the
2 first operating mode; correct?

3 MR. PATARIU: Objection. Form. Objection.
4 Foundation.

5 THE WITNESS: My analysis focused on the claim
6 language that says it is configured. And so out of the
7 box, it's configured that it can operate in operating
8 mode 1, operating mode 2, operating mode 3. It's set up
9 where it can do that if the fuse is not blown; for
10 instance, it's brand-new out of the box.

11 It's still configured that if the fuse is
12 blown, you can enable the 5 volts, although the fuse
13 would likely not be blown out of the box.

14 BY MR. HAWKINS:

15 Q. I see. It's a little different with the
16 previous answer.

17 Before, when it's brand-new out of the box, it
18 could not perform operating mode 1, and now it can?

19 MR. PATARIU: Objection to form.

20 THE WITNESS: So I'll clarify. I believe the
21 question Mr. Patariu asked and then you followed up on
22 is, what does it do when it's out of the box? And the
23 claim language is about what's it configured to do.

24 It's configured out of the box. It can do all
25 three modes. But out of the box, it will operate in

1 either operating mode 2 or operating mode 3 until the
2 fuse is blown. But it's already configured to operate
3 in operating mode 1. Whenever the fuse is blown, the
4 user can still enable the 5 volt, for example, output.

5 MR. HAWKINS: I understand. Thank you. No
6 further questions.

7 MR. PATARIU: And nothing further for me.

8 (Deposition concluded at 2:39 p.m.)

9 ***

1 STATE OF CALIFORNIA)
2) ss
3 COUNTY OF SAN DIEGO)

4 I, DAVID SHAWN RICKETTS, PH.D., having appeared
5 for my deposition on January 16, 2025, do this date
6 declare under penalty of perjury that I have read the
7 foregoing deposition, I have made any corrections,
8 additions or deletions that I was desirous of making in
9 order to render the within transcript true and correct.

10 IN WITNESS WHEREOF, I have hereunto subscribed my
11 name this _____ day of _____, 20____.

12
13
14 _____
15 DAVID SHAWN RICKETTS, PH.D.
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REPORTER'S CERTIFICATE

STATE OF CALIFORNIA)
) ss
COUNTY OF SAN DIEGO)

I, COLLEEN M. PETERMAN, CSR NO. 7882,
Certified Shorthand Reporter for the State of
California, do hereby certify:

That the deponent named in the foregoing
deposition, prior to being examined, was by me first
duly sworn to testify to the truth, the whole truth, and
nothing but the truth;

That said deposition was taken before me at
the time and place therein stated and was thereafter
transcribed into print under my direction and
supervision, and I hereby certify the foregoing
deposition is a full, true, and correct transcript of my
shorthand notes so taken.

I further certify that I am not of counsel nor
attorney for any of the parties hereto or in any way
interested in the event of this case and that I am not
related to any of the parties hereto.

WITNESS my hand this 19th day of January,
2025.



Colleen M. Peterman, CSR No. 7882

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CASE: SHENZHEN XINZEXING E-COMMERCE
vs. SHENZHEN CAR KU TECHNOLOGY
DATE OF DEPOSITION: JANUARY 16, 2025

PAGE	LINE	CHANGE/ADD/DELETE/REASON
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	PAGE	LINE	CHANGE/ADD/DELETE/REASON
1			
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15			
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17			
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25	Deponent's Signature _____		Date _____

\$	92:1	109	156
\$650	1.5	59:22 63:7,11 64:21	81:24 86:23 87:11
10:9	100:1,6,16,21 101:24	11	92:22
	102:2,13,19 103:16,20,	85:10 88:7,15 127:13,	158
	23 104:4,23 105:25	20 129:9,15 136:11	81:24,25 82:1,17,22
	146:10 148:13 149:22,	138:25 143:22,25	83:1,22,24 84:13 87:15
	24 150:5	144:3,4,24 145:3,5	159
0	1/2	112	84:14,17 88:24 89:19,
137:16	137:13,17 140:14	117:19,23,25 118:1	25 90:6,13,24 117:14
0.5-amp	141:11 142:11,13	121:24	118:13
133:15	10	12	16
	78:13 82:10,24 83:3,7	16:15 25:6 37:2,5 47:5	5:2 84:20
	86:3 88:4 91:17 110:10,	48:2,16 49:12 50:17,22	161
	16 123:4 137:1,9,12	52:8,9,11 53:4,15,25	92:22 117:14 118:7,14,
	140:14 141:12 142:12	54:2,3,10 55:9,21,23	17
1	10-minute	56:2,4,17,19 57:25	162
9:8,13 13:6,9 14:2,4,5	46:22 78:23 145:19	70:14,17,18 74:23 76:6	109:2
17:16 18:7 19:2,16	100	77:17,22 78:13 82:6	163
22:10,11,16,22 23:3	25:9 75:4,14,21 76:5,	83:7,11,14 120:3,20	109:2
28:10 29:2,10,19,21,22,	13,19 78:11 152:3	132:19 133:21,23	164
24 30:4,18,21 31:2,11,	100-	134:5,6,15 136:25	101:2
15,22,23 32:2,8 33:17	153:2	137:12 138:2,6 139:3,	165
38:16 43:6,21 44:2,6,10	100-amp	14 140:24 141:23	94:4,6,12 99:21 100:12
51:25 59:16 61:18	76:20	142:11,12 152:3,4	106:19 108:23
63:10 64:5,21,25 65:2,	100-amp-to-400-amp	12-volt	184
19 70:16 72:10 74:21	74:18	20:3 33:6 47:21 49:13	115:5
76:23 79:8,10,22 86:21	1001	50:3,4,7,15 51:9 55:14	185
110:21 111:18,20	14:25 23:7 53:12	57:9,10 75:19 76:9	110:13,17 111:15
113:23 114:10,16 116:4	1003	77:3,11 119:9,13,17,19	113:11,24 114:7 115:16
125:8,12 126:6,7,8,23	10:24 90:21	122:25 134:1 142:3	117:3,5
129:8,14,16 130:21	1004	151:18 152:14 153:2	19
131:13,16,20,23 134:11	125:14 126:4,14,16	156:4 157:9,15,16,20,	16:15 25:6 37:2,6 47:4
136:9 137:6,23 138:8,	127:4,8,17 128:12,18	24	53:15,24 54:2,3,10
24 139:8,13 140:13	129:11,19,22	1200	55:16 56:17,19 74:22
143:21 144:5 152:24	101	76:20 77:4,12	77:16,17,22 79:5,7,9
155:24 159:15 160:8,18	17:11,15 19:22 20:17	13	84:23 85:2,9 87:22
161:3	21:1 63:8 74:12 125:6,	82:11,24	88:12,14 89:11,21 90:9
1.2	15,20 126:9,19 127:23	14	91:7 132:19,24 133:20,
17:19 20:12,18 84:16	128:25 131:5 142:19	88:2	23 134:2,6,15 137:2,12
85:24 86:3 87:6,21,24	103	141,841	138:1,5 139:2 140:24
88:1,5,6,25 127:24	63:9,10 64:21 145:13	126:23	141:21,22,23 142:11,13
131:6 135:6 141:17	104	15/141,841	19-volt
1.3	117:23,25 118:1	125:23	20:2 46:6 75:19 76:9
84:16,19,23 87:21,22,	105	151	78:2 136:8 142:2
24 88:6,25 89:1,4,7	73:24 74:15 136:23	87:10	19/3.5
118:4	107	152	137:16
1.4	130:5	79:3	190
82:19 87:3,6,13,20			117:11,13 118:12
90:10 91:7,10 128:2			
129:20,21 130:1			
142:19,20 143:7,15,20			
1.4]			

119:20 120:21 130:20, 23	22 127:10	308 114:25 115:25 116:7, 13,22	44 17:19 20:2 112:13 117:3,9 133:12 153:17
190.9 19:25 21:2 125:18 126:21	24 14:15	30th 8:2	45 112:13 117:4,9 142:20
192 117:12 123:9	25 127:12,19 129:12,22	31 10:10,11	46 59:1 62:19,21,24 63:6 64:19 129:6 142:20 154:3
2	26 90:22 118:7	32 98:23 118:6,20,24,25	47 83:15,20 84:4,6
2 13:6 42:8,10 47:15 48:13 76:23 110:21 111:18,20 113:23 114:10,16 116:4 130:5 135:2 137:2,10,12 140:14 141:11 152:24 159:12 160:8 161:1	2:39 161:8	34 11:13 118:6,20,24,25	48 59:2 62:19,25
20 82:3,10,17,19,20 83:2, 23 84:13,20 89:4,22 90:10,15 91:11 92:1	2C 110:21 111:1,13,17,20 112:1,8 113:13,23 114:9,16 115:20 116:3, 9,15	35 56:1,16 101:2 106:24 107:6,9,24 109:9,13	49 136:23
2001 7:17 9:12 14:15 24:10 128:3 151:17	3	36 11:16,25 12:6	5
2003 126:11,17 128:14,19 129:10,18,19,24 133:19	3 10:4 16:8 17:3 21:7 22:11,16 23:11,13 27:24 29:5,18,21,22,23 30:11,19 31:7,14,20,23, 25 32:8 39:23 43:5,10, 16,17,21 44:2,6,7 48:18 49:11 51:4,12 56:18 57:2,7 61:18 65:21 70:14,16,18,20 72:11, 13,21 73:25 74:2,21 80:11,12,14 103:6,11, 22 118:6 120:18 124:13 131:24 134:11 137:6, 13,17 139:14 140:14 141:11 142:11,13 143:23,25 144:1,3,6,10, 24 148:9 152:11,24 153:2 157:22 158:4,18 159:1,12 160:8 161:1	37 11:13	5 16:15 18:4,11,15 19:4, 7,16 20:3 22:11,16,22 25:6 28:5 37:2,5 41:15, 18 42:1 47:4 48:2,14 49:7,21,22 50:5 52:8,15 53:3,5,15,25 54:2,4,6,8, 9 55:9,13,20 56:2,4,17, 20 57:8,19 59:1,21 62:19,21,24 63:6 65:1 71:1 72:19,21 74:3,22 77:17,19,22 98:11 119:7 123:16,20,22,23, 25 124:14 132:19 133:21 134:5,15 137:1, 12 138:2 139:3 140:25 145:4 152:13,17,19 155:12 156:2,7 159:16 160:12 161:4
2010 120:24	3's 144:8	4	5- 46:5 136:8
2011 130:7	3.5 78:9 137:3	4 18:4,11,15 19:16 20:3 24:16,25 25:3 26:3,8, 20,25 41:15,18,25 70:24 71:1 72:3,6,8,13, 15,17,19,21,25 73:3,5, 9,11,15,18,21 74:2 79:9,11,14,17 80:25 81:7,20 91:16 107:24 109:2,11 110:21 111:18,20 113:23 114:10,17 116:4 121:24	5-volt 20:4 28:3 45:5,13 47:16 48:12 51:9 75:18 83:14 92:11 133:22,25 151:18 152:3 154:22 155:5,20, 25 159:11
2024 8:2	30 14:25 15:14,21 16:3,7, 13 17:2 18:7 21:6 23:9, 16 24:8 53:10,12 74:4 155:7	40 154:13	50 78:11
2024-00222 7:7	300 119:7	400 152:3	500 106:15,17 114:19 115:2,4,6 116:2,18,19
2025 5:2		400-amp 153:2	
21 22:12		41 144:1 155:7	
212 145:24,25 146:24 147:6,11			
213 147:3,6,11			
214 146:24 147:6,11			

119:6,7 121:11	119:23 120:12	42:16 43:15	986 130:25
500-amp 119:3,15	61 22:4	78 42:16,20	A
506 7:11 14:25 15:6 16:13, 18 18:6 20:22,25 21:7, 24 23:8 33:2 35:9,20 39:18 42:9,13 45:3,12 51:4 68:6,10 70:13 75:9 96:24 97:1 99:15 100:3, 10,18 101:15 102:6 105:4 109:21,24 120:19 125:13,16,17 126:15 130:17 131:24 134:12 136:24 137:6 143:23 144:4 148:9 149:6 153:10,13 154:17 155:4,14	62 18:23 19:5 22:9,10 23:1	7882 5:6	A-P-E-X 6:3
52 19:2 22:10,12	63 18:24 19:7	79 41:10,23 42:1,6,8,10, 12,14	absent 130:14
53 117:13 118:15 156:17, 20	64 18:3 19:9	8	accessories 74:9,24 75:16,21 76:11 77:3,10 120:12
55 117:16,17	65 14:24 15:12,16 16:1,12, 22 20:20,21,23,25 21:23 23:23 24:7 47:7	8 85:25 88:3,8	accessory 46:5 49:13 50:4,8,15 122:17
56 117:14 118:3,15	66 14:14,16,20 15:3,4,9,17 16:10,20 17:6 19:13 20:22 21:11 22:15,24 23:25 24:4,6 27:23 47:14 48:11,13 151:14, 16 152:1 154:24 155:17 158:12,16	8.9 91:17	accomplish 115:18 116:6
57 19:2 22:10 88:17,19 90:4,14,22 91:5	67 24:11 25:23 26:20 27:16,18 28:13 36:25	81 82:2	accomplished 114:23
58 64:19 90:16 91:11,19 92:4	7	82 82:2	accordance 70:21 72:18,23
59 92:10,13 93:19,22	7 14:25 15:13,21 16:3,7, 13 17:2 18:6 21:6 22:11 23:9,16 24:8 42:12,15 47:8 53:9,12 56:1,15 57:5 62:17 70:24 71:1 72:3,6,8,13,15,17,19, 21,25 73:3,5,9,12,15, 18,21 74:4 79:9,11,14, 16,23,24 80:3,15,17 92:12,15,16 93:3,14,16, 25 94:1 111:19 112:6, 10 114:12,17,25 115:20 117:6 155:7	83 44:15,20 48:22 51:2 57:15	account 152:16
6	728 130:25	841 130:25	accurate 6:11 143:6 144:10
6 19:4,9,10,17 20:4 22:11,12,16,22 71:1 72:19,21 93:9 96:24 97:1,17,22 98:3 153:13	73 147:12	85 106:20 107:19 108:18 109:9,12	achieve 109:15 112:5,10 158:21 159:5
60 15:12,16,25 16:22 18:3 20:20,21,23,25 21:23 23:23 24:7 36:19 90:16 91:12,19 92:4 100:25	74 32:11,14 34:23 37:16 38:7,15,17,19,23	9	achieved 116:13
6000	77	9 33:7 86:1 88:3 125:22 126:5 153:2	achieves 104:2
		9,643,506 7:13	activate 45:4
		93 58:8,10 59:5,9,14 60:21 61:4 62:7 66:2,4,6,22 67:9	activated 47:20
		94 59:16 60:2,4	active 30:17 58:1
		95 61:17 63:11,16 64:22	acts 150:21
		96 61:17 139:10	actual 58:11 60:22 114:1
		97 59:1 62:20	add 60:25 66:5,7 130:12 141:4 148:17,22 149:14

added 103:8 110:23	141:10,14 142:8	apparatus 102:9,17 103:7,9,12 109:22	assume 26:18 103:12 137:4 138:12 139:21
adding 12:9 110:2	amps 75:4,14,21 76:5,13,19 78:9 106:15,17 119:7 121:11 135:2 137:1,2,3, 9,10,12,13,16 140:14 141:11,12 142:11,12,13 152:4	apparently 45:14 88:24	assumption 159:8
addition 10:13 15:15 121:19	analogy 68:8 69:4	appears 18:7 51:3	attach 134:16,18
additional 12:10,21 24:12 25:23 58:18 101:10 148:18 150:7	analysis 22:20 82:15,16,21 83:3, 24 84:2,3,12,16,22 92:21 93:24 97:15 98:14 126:19 150:5 160:5	appended 29:22	attached 46:5 97:9 132:20 134:15 159:3
additionally 85:8	analyze 58:22 91:13 93:25 98:7	appliance 101:5	attaching 96:4
adds 12:8,11,15	analyzed 61:7 64:18 84:23 89:1, 5,7,19 91:6,7,25 92:1, 24 93:9,12,14 109:9 124:14 126:6	application 17:17 18:2 19:3,6,8,11, 25 20:18 21:2 70:22 72:19,24 74:7,11 95:16, 18 125:8,19,22 126:4, 20,22,24 127:2,4,5,25 128:11 130:11,14,19 131:1,3,4,10 132:14 133:14 134:11 137:7,24 155:5,15	author 7:23
ADMINISTERED 5:11	analyzes 90:7	applications 77:20,23,25 78:7 130:15,19 153:11	automatically 101:6
admittedly 17:21	analyzing 82:17 83:19,23 84:18 89:9 90:6 92:23	applying 98:21	automaton 120:9
affect 61:3	and/or 159:12	appropriately 139:4	automobile 121:16,18,21 122:10 157:6
agree 46:21 54:5 65:24 119:6, 15 128:10 131:19	annotated 63:11 64:22 65:19 88:5 139:9	areas 21:24 23:4	automobiles 122:5
air 26:18	annotation 139:11	argument 88:13,19	avoid 6:22 100:6,21 101:23 102:19 103:15 149:18
allowable 146:16	annotations 70:15	arrow 133:1 139:11	aware 7:5 77:2,10 84:11
allowed 39:4	answers 52:10	arrows 131:16,23 132:20 134:10 137:5 138:17 140:4	B
allowing 29:11 49:23	Apex 6:3	art 23:13 93:4 97:21 119:22	B1+ 81:9,15,17,20,21
amend 61:23	apologies 69:4	aspects 149:8	back 20:19 27:23 53:11 56:24 59:3 61:6 67:9 73:23 80:15 99:21 105:4 117:2 120:24 125:5 151:4,13 158:12
amended 60:24	apologize 18:22 33:25 36:20 53:21 63:4 71:22 86:11 100:9	assert 85:2	background 74:13 96:1
amount 125:1		asserted 85:13,21	backup 38:25 70:21 95:21
amp 76:23 78:13 89:23 119:6 134:17 135:2			based 15:17 19:13 72:22 73:10 107:1 133:24 147:23
amperage 76:13 78:3 119:3,9 133:25 134:1,2 137:7 138:13,18 140:4			
amperages			

basic 97:25 basically 106:20 basis 89:5 BAT 80:9 BAT+ 80:4,6,13,14,15,17 81:3,6 batteries 36:1 127:21 129:14,16 139:12,15,21 144:20 battery 20:13,14 25:8 32:19,23 35:2,10,21 36:17 37:25 38:21,25 39:12 40:8,14 48:24 52:21 58:10 59:17,24 60:5,7,18 61:9,11 63:1,3,8,18 64:7 65:13,14,15 68:6 69:1 71:14,15,21,24,25 72:2 73:1 76:6 78:6 80:7,10,13,22 85:4 86:24 87:4,5 91:16,18 102:3,11 120:21 121:19,20 122:23 129:2,3,7,8 135:8,13 136:14,18 137:20,21,24 138:1,4,14,24,25 139:1, 6,8 140:9 141:1,17,19, 22,24,25 142:4,15,22 143:11,14,19 144:5,25 145:6,10 146:11 battery-powered 120:4 beams 13:8,12,22,24 14:1,8 beginning 14:17 believed 112:3 bit 46:18 47:18,25 79:12 113:1 124:17 145:16 bleeds 82:2	block 70:19,20 71:4,7,8 144:9,10,13 blowing 34:24 153:25 blown 33:4,5,9,21 34:4,9,17 35:16 37:8 39:24 40:5, 7,13,23 41:1,5 50:17,18 57:20 153:6,7 155:24 156:2,6 159:9,14 160:9, 12,13 161:2,3 blows 154:6 155:23 board 26:15 65:4 69:15 93:18 Boolean 27:21 151:23,25 152:12 156:5 boost 20:2 bottom 20:2 62:7 88:13 91:10 106:19 117:22 138:8 box 155:15 156:3 158:19,23 159:9,18,25 160:7,10, 13,17,22,24,25 brand-new 158:19,23,25 159:18,25 160:10,17 break 6:16,18 18:18 46:19,21, 22 48:5 78:19,23 110:6 145:17,19 breaks 6:15,19 7:2 110:8 150:16 briefly 17:11 70:13 127:7 bring 53:11 79:6 brings 127:12 broadly 15:6	buck 20:4 92:12 build 105:7 building 67:15,16 68:5 builds 100:2 built 57:6 121:17 159:1 bullet 26:2,24 27:9,16,18 41:13 bullets 25:24 burnt 153:18 C C32 97:9 98:13 cable 132:1,11 148:10 149:1 cables 49:14 147:18 California 5:6 call 7:11 101:16 150:11 called 67:15,17 95:8 camera 132:16 155:10 cameras 74:10,25 75:10 76:4,18 77:16 78:8 capabilities 76:2 capability 120:3,5 121:17 123:5 157:12 capable 25:5 32:20 37:13 38:4 39:15 48:25 122:15 135:12	capacitor 98:7 capacity 119:18 157:8,15 car 13:4,6,9,15 14:1,6 28:4 49:14 51:11 67:21,23 121:1,4 159:3,4 Carku 9:14,17,18,19,22,25 10:2 Carolina 6:3,5 67:24 cars 13:11 67:17 68:17 154:13 case 7:7,25 95:18 127:11 128:4 cases 9:18,21,23 caused 124:3 ceases 112:20 115:12 cell 75:9 155:10 center 117:21 Certified 5:5 cetera 105:9 chain 130:24 challenge 7:12 chance 46:23 65:8 change 58:20 60:13 61:14 66:23 67:2 changing 110:2 characterize
---	--	--	--

115:22 139:23	106:21 107:10,22 109:4,11 112:2,19 113:19 115:11,21	102:3,10,18 103:9,13, 24 104:3,7,8,9,16 105:8,10,12,13,21 106:21 108:9 109:8,11 110:20 111:17 113:2 114:3,22 123:13 124:12,14,24 127:13,20 129:2,9,21,23,24 130:2 136:10 137:25 138:25 139:22 143:10,13,18,24 144:4,24 145:2,5,12 146:1,4,8,9,10 148:21 153:15	148:1
charge 10:7 74:8 75:21 121:2, 14 122:23,24 144:14,20	Chen-richardson 110:16	circuitry 69:12 92:12,15 110:1	cites 16:13 42:7 79:7,8 82:2 83:15 87:15 88:17 90:14,15,21 91:11 113:16 130:19
charge-discharge 127:20 129:14 143:24 144:12 145:1	China 19:24	circuits 21:14,15 22:18 23:3,5, 19 31:22 98:8 100:14 101:1 107:4 108:24 113:12 114:9 116:8 144:14 146:25	citing 16:13 26:2,5 27:3 41:12,14 84:1 118:5 130:20
charged 77:3,11 121:8 123:7	Chinese 17:17 18:2 19:3,6,8,11 20:11 21:1 74:6,11 75:8 125:8,19 126:6,12,20, 24 127:5,10,25 130:10, 14,22 131:4,10,13 132:13 133:14 134:11 137:6,23 139:13 155:14	citation 16:1,12,18 17:8 20:11 23:1 24:22 26:25 36:21 42:10,14 59:20 83:18, 24 115:6 118:17	city 6:1
charger 16:17 23:2 25:5,9 28:25 29:17 30:3,9 33:9,14, 18,19,21 34:4 38:25 39:25 40:2,7,11 41:2 44:1 48:23 51:7,24 53:14 55:8 57:6 60:15 64:3 68:6 70:21 71:8 72:18 83:12 95:21 100:3,5,17 122:21 131:25 144:16 147:17 155:9 160:1	choose 53:14,24 54:1,14,17,22 55:3,6,7,9,19 56:1,9,16 155:8	citation's 111:20	claim 11:16,18,20,23 12:2,5, 7,8,9,12,13,14,18,20, 22,23,24 13:4,6,9,15,19 14:2,4,5 17:16 18:7 28:10 29:2,5,10,18,19, 21,22,23,24 30:4,11,18, 19,21 31:2,7,11,14,15, 22,23,25 32:2,8,9,12,13 33:17,21 34:4,22 36:9 37:24 38:16,18 41:19 43:5,6,10,16,17,21 44:1,2,6 46:14 51:23,25 52:2,20 58:4,11,12,15, 19 59:16,19 60:1,25 61:2,3,7,23,25 64:9,14, 18 65:2,3 66:14,17,18, 21 67:2,3,5,7,9,10 68:25 69:2 72:10 86:21 99:25 102:5,9,12 104:4 105:25 110:16 125:7,8, 9,12,22 126:5,7,23 129:1 130:16,21 131:2, 6 135:6,16,17 137:19 138:13 139:5,19 140:2, 13 141:6,17 143:17 146:10 148:13,20 149:22 160:5,23
chargers 78:10	chooses 128:8	citations 15:8,14 16:4 22:16 23:4,22 24:7 36:19 41:21	claim's 146:8
charging 51:10 57:7,9 74:24 122:17 129:6,13	choosing 74:8	cited 10:25 11:1 15:22 18:2 19:1,4,15 21:23 24:16, 25 26:20 41:17 42:1 47:7 62:16,20 66:17 75:14 82:9 84:6 88:13 91:14,22 93:11 109:2 110:20 111:1,12,19 112:8 115:19 116:8 117:6,13 118:5,18,24 125:14 129:5 131:10 136:3 146:25 147:13	claimed 87:12 140:13
check 10:17 36:21	chose 55:14,20		claiming 42:21 43:3
checked 128:23	chosen 54:9,13 55:13		claims 21:1 29:4,14 32:5 59:7, 12 86:21 125:21,25 152:25
Chen 79:4,9 82:5,6,9,12,25 83:8,20 85:3,21,25 87:10 88:2 92:17 93:9 96:19 99:15,23 100:13, 15 101:2,7 102:6,23,24 103:2,5 105:3 106:24 107:9,17,24,25 108:1,3, 5,6,8,9,13,19 109:1,3,5, 16,23 110:4,21,25 111:2,11,13,18,21 112:9 113:14,24 114:3, 10,17,22 115:9 116:4, 16 117:8	cigarette 121:1,15,18,25 122:4 156:24 157:4		
Chen's 79:7,13,23,24 80:6,11, 25 82:12 83:12 85:9,11 86:18 87:23,24 88:14, 16 89:16 91:15,18 92:17 93:3,6,14,15	cigarette-lighter 121:8 122:4,16		
	cigarette-lighting 122:12		
	cigarette-style 119:4,13,17,19,24 120:6,11,15,25 122:22 132:2 156:18 157:1,5, 10,25		
	circuit 20:3,4 30:17 34:9,17 35:25 44:9 69:14 70:24 71:2,4,10,14,20,24 72:1,4,13,14,17,20 73:3,6,20 80:18 82:9 87:3,9,13,14 91:15 93:11 94:6,9,13 95:1, 15,22 97:8,14 98:1,5 99:3,9,14,24,25 101:22		

clarification 47:25	combined 110:22 111:18 114:11	computer 20:8 132:16,25 133:2 155:10	135:9,14 137:21 138:4 139:6 141:18,25 143:10,13,19 146:11 160:6,7,11,23,24 161:2
clarified 47:3	comma 99:24 146:5	computers 74:9,25 75:10 76:4,17 77:16 78:8	confirms 91:14
clarify 14:22 56:9 70:9 105:23 128:17 152:2 160:20	commas 43:2	concerned 48:12	confused 151:11
clarifying 14:13	common 94:14,16 95:6,14,17,19 154:21	concluded 147:1 161:8	confusing 43:1
clarity 42:18 63:22 110:23 111:8	commonly 133:8	concluding 99:23	connect 78:13
classic 94:9 97:13	communicated 8:20	conclusion 15:17 16:9 17:5 18:13, 15 19:13,15 21:8 22:14, 23 23:25 24:3 26:15,17 27:11 74:14,15 75:2,22 100:13 147:5 153:11	connected 16:17 20:4 49:14 56:20 82:21 92:15 98:13 120:20 121:10 127:13, 20 129:8,15 135:13 136:10 139:1
clear 7:6 12:17 31:17 34:12 40:6 60:24 65:3,4 101:7 133:24	communication 51:22	conclusion's 147:16	connecting 147:18 153:22 154:4,5
clearer 79:25	compare 18:7 115:3	concrete 136:20	connection 45:15 98:21 124:4 145:10
closed 81:7,16,19	compared 146:21	condition 34:9 91:16 100:4,20 102:4,7,12 103:8,10,25 104:10 105:9,19 106:1, 3,4,16,22 107:11,21 108:13,20 109:1 146:12,14 147:4	connections 83:14 85:5,6
cobalt 129:8	compares 125:7	conditions 153:12	connector 98:23 132:11
Colleen 5:4	comparing 19:23 21:1 125:25	conduct 8:24 9:3	connectors 85:11 88:16 89:16
column 14:25 15:13,21 16:3,7, 13 17:2 18:4,6,11 19:2, 4,7,9,10,16,17 21:6 22:10,11,12,16 23:9,16 24:8,16,25 25:3,6,11 26:3,8,20,25 41:15,18, 25 42:1,8,10,12,15 47:8 53:9,12 54:19,25 56:1, 15 57:5 59:1,21 62:17, 19,21,24 63:6 65:1 70:14,16,18 74:4 136:4 142:24 145:4 153:1,13 154:22 155:7	comparison 125:12,16 126:21,23 131:2	configuration 33:8,20 34:3 48:13 95:8 120:19	consideration 118:14
columns 18:15 22:7,22 130:12	compatible 122:22	configurations 21:16	considered 16:7 17:2,9,10,13 68:8 82:8 84:10 118:5,12,23 135:17
combination 110:16,25 111:11 114:4,23 115:8 117:4	compensated 10:5	configured 13:7,11,21,23 20:14 32:20,23,25 35:1,9,20, 25 36:17 37:3,4,9,14, 21,25 38:3,20 39:1,3, 13,25 40:8 45:1,19,21, 24 46:2,11,12 48:24 49:15 50:17,18 52:22, 24 53:6 57:11 86:24 87:4 91:15 102:4,11 121:21 122:10 129:3	consistent 46:10 60:8 78:10 89:6
combine 111:21	complete 28:23 72:20 73:6		constitute 146:5
	completely 7:24 138:7		construction 32:12,14 34:22 37:17 38:15,24 41:12,19,23 42:2,3 44:16,22 46:14 51:2,23 58:8,13,19 59:14 60:13,22 61:3,14, 25 62:6 64:19 65:11,12, 18 66:13,23 143:17
	completion 27:21 152:22		
	component 104:16 124:2,19		
	components 71:11 80:19 97:7,16 98:16		
	compound 113:9		
	comprising 13:5,10,20		

contained 93:10	124:21 128:21 134:2,9, 12 135:19 140:15 142:8 146:22 147:19 148:10 149:19 159:21 160:2	24 75:16 76:2,10,17,23 78:3 80:6,18 81:8,17, 19,21 85:3,9,11,14,21 86:8,19,25 87:1,17 88:14,15 89:2,3,5 90:7, 11,12 94:10,17 95:3,14, 22 96:2,3,5,7,8,12,14, 15,21,22 97:4,8,24 98:5,18 99:5,11,18,19, 24 100:14 101:19 102:18 103:10,11 105:10,18,20 106:3,5,6, 7,10,22 107:4 108:25 112:15,16,20,21 113:18 114:8,15,18 115:1,3,7, 12,15 116:1,16,17 117:7,8 119:3,16,18 120:3,17,18,22 121:11, 16 123:1,5 124:4,5,11, 18 131:7 132:8 133:12, 16 134:10,14,18,21 135:3,9,14,22,23 136:1, 15,16,17,18 137:10,14, 17,22,25 138:2,3,5,14, 15,19,20 139:1,2,6,15 140:2,5,9,10,13,24 141:6,7,13,18,19,20,21, 24,25 142:1,4,14,15,18, 25 143:8 144:25 145:6, 7,12 146:4,9,12,20 152:4,14,19 153:19 154:1,7 155:9 156:9 157:11,17 158:3	D D12 82:20 93:10 damage 91:18 damaged 124:2,19 date 8:5 130:20 131:4 dates 130:18 David 5:10,20 DC 46:11 83:13 85:5,11,22 86:1,3 88:3,16 95:15 117:19 119:13,17 120:19 122:25 131:21 157:9,12,16,20,24 DC-TO-DC 20:3 23:19 132:19 DCS 131:14 decided 51:9 decision 108:5 decisions 107:1 declaration 6:14 7:17,22,23,24 8:1, 9,16 9:6,9 10:4,11,16, 19,24 11:1,3 14:15,16 17:20 19:5 21:3 22:5 24:11 32:12 41:11 64:22 73:23 79:3,17 81:23 82:14,24 83:7,16, 21,22 84:4,5,7,11,15 86:23 88:18,20,23 89:6, 25 90:3,5,16,22 91:5,8, 20 92:5,7,10 93:24 94:1,4 95:25 96:19 100:10,24 105:4 108:8 109:12 110:14 114:1,14 116:13 117:15 118:7,13 123:10 125:6 126:21 133:12 142:21 144:1
context 28:19 47:7 68:10 69:6 105:25 123:10 126:5 127:24	cost 153:24		
continuing 118:2	counsel 6:20 8:21 46:18 145:15		
control 20:7 35:1,9,21 37:22 38:20 56:22	couple 110:8 125:9 127:6		
controlled 35:18 37:19 39:7	coupled 20:13 52:21 87:4 102:3, 10 129:2 135:8 137:20 146:11		
controls 35:12	court 56:23		
convenient 154:5	covered 21:3 42:17		
conventional 112:14 113:17 119:4, 12,16,23 120:11 156:17,23,24,25 157:2, 4,10	create 150:6		
conversation 47:3	crime 150:20		
conversations 6:20,23	cross-examination 7:1		
conversely 41:5	current 16:16 20:15,21 25:5 28:3,6 29:7,8,11,13 30:16,24,25 31:20,24 32:5,15,19,20,24 33:1, 3,6,10,11,22,23 34:5,6, 10,13,18 35:12 36:2,3, 17 37:3,18 38:1,3 39:1, 4,13,15,24 40:1,9,18,19 42:22 43:4,5,6,7,11,18, 20 44:7,8,22,25 45:1, 16,19,22,24 46:12 47:11,22 48:18,24 49:1, 12,16,22,23 50:3,4,7, 14,21 51:1,8,12,14 52:4,12,16,22 53:1,7 54:15,17 55:18,19 56:17 57:12,20 58:8 59:17,23,24 60:4,6,18 61:8,10,11 62:5,14,15, 22,25 63:2,7,8,12,14,17 64:3,6 65:12,14,16,20, 21 68:7,24,25 69:1,3,6, 8,9,10,11,16,21,22,25 71:15,21,25 72:2,5,11, 16,25 73:16 74:16,22,	current's 133:6 current-carrying 120:5 157:8,15 current-sense 92:14 currents 25:10 29:6,9 37:10 43:25 61:19 64:6 70:1, 10 98:2 137:9 146:15 153:19 cut 101:19 102:18 153:18 cutting 112:16 153:25	
converter 92:12			
convicted 150:18,20			
copper 69:13 70:2			
corner 97:17			
correct 7:19,20 12:19 17:13 18:14 24:18,24 25:1 26:22 29:19 31:2 33:4, 5,23 34:6,14 37:8 38:8 41:3 43:12,23 44:3 48:4 53:18,25 54:4,11 58:1 63:3 65:9 66:10 70:6,19 72:8 80:19,23 81:10,18, 20 94:18 106:12 108:14 114:23 123:16,17			

145:24 147:7 151:15,16	114:17 143:9 153:15,16	156:10 158:18,20 159:1,14,19,25	40:16
declarations 108:24	description 17:23 20:1 25:25 46:13 54:18 70:23 72:23 75:7 82:19 97:7 98:25 108:6 109:4 131:13 143:16 148:18 154:16,17	devices 29:12 30:25 71:10 74:17 75:13,15 76:3,5 155:9	disagree 93:19,21 119:5
deeper 124:17			discharge 139:22 144:21
definition 54:21		devised 60:15	discharger 144:17
deleted 64:20	descriptions 25:24 147:9	diagram 70:19,20,25 71:4,7,8, 14,20,24 72:1 73:6 144:11	discharging 129:6,14
deliver 45:4	descriptor 131:14		disclose 87:11 116:17 120:17 123:1 149:25 150:3 157:7
delivered 119:23	desired 17:23 20:9	diagrams 71:2,9 72:4,14,17,20 73:4,20 98:1	disclosed 26:10 108:3 109:1 110:4 116:3 122:6 133:22 138:8 152:7 158:4
delivering 30:25	details 104:17 114:13	dictate 46:6	discloses 16:14 43:16 102:24 108:2 109:21 122:25 123:19 147:13
depend 95:16	detect 95:2,7 97:4,8,23 98:5, 18 99:5,11 101:3 105:17 106:3,10,21 107:4 108:24,25	dictates 36:13 39:19	disclosing 109:6 131:20 138:3
dependent 11:20 12:7,8,9,13,20 13:19 29:21,24 30:10 32:9 134:15	detected 99:4	dictating 36:5 101:21	disclosure 15:13,21 27:4,8 40:15 57:2 76:22 106:24 119:9 125:13 133:14 149:12 153:10 155:4 157:8,17,23 158:1,3
depending 35:17 76:24 138:2 156:9	detecting 94:5,15 95:11 106:25 107:6 116:1,18	difference 11:19 31:9 38:11 71:3 154:20	disclosures 14:19,23 15:2,7,10,11, 15,17,22 16:2,9,21 17:1,9 19:13,15 20:23 21:13,18 27:14
depends 134:17,22	detection 95:14,22 96:2 99:24 100:13,14 101:3,8 102:17 103:2,9,13 104:9 105:21,24 115:8 116:16 147:15	differentiation 11:17	discuss 15:6 23:4 43:24 44:14 89:19 120:3
depicted 79:10 100:18	detector 103:23	digital 74:9,25 75:10 76:4,18 77:16 155:10	discussed 43:14 44:10 46:10 84:9 99:16 115:15 116:13 117:4 143:2,15 144:9 145:13 152:9,20,25
deposition 8:15,24 9:3 161:8	determine 102:18 103:9 104:9 105:9	diodes 147:11	discusses 26:6 43:15 89:22 114:25 155:7
describe 8:14 9:21 22:17 24:12 26:14 32:22 36:22 60:2 94:12 142:25	developing 82:4	direct 74:22,23 76:9 78:3 96:14	discussing 11:13 74:1 79:4 102:23
describes 20:2 25:4,5,17 27:7,9, 17 28:14 29:5,6 31:8 37:12 40:15 72:11 76:8, 16 97:10 98:25 106:25 107:25 130:18 131:7 145:5,11	device 28:8 30:3,15,21,24 31:9,14,19 32:2,5 34:18 37:2,4 44:5 49:11 51:3, 22 52:23 53:17 61:8 83:12 95:15,21 96:14 101:4,23 102:19 103:17 107:1 121:15 122:11 123:16 131:18,25 132:8,9,12,14 133:7,8 154:9 155:13,18,21	direction 16:14	
describing 23:18 25:23 26:3,4,25 27:1,6,12,19 31:9 32:12 37:9,25 38:23 42:3 59:22,25 60:22 64:8 66:16 68:6 73:3 101:8		directly 132:25	
		disable 47:12 156:2,7 159:11	
		disabled 47:5,16 48:1,2,6,7,14, 16,19 52:8 57:8 152:18, 19,23 153:6 154:25 155:6	
		disabling	

dishonesty 150:21	144:9 145:13 152:9	99:22 110:18 123:13 132:2	examples 37:7 73:19 75:15 95:20 127:6 128:6 136:24 137:13 147:6,13 150:1
dive 79:12	easier 22:3 23:9	ending 19:25 21:2 89:21 90:9 91:7 126:20	exceeded 112:17
divide 101:3	elect 55:9	engaged 8:3	exceeding 119:4
divided 139:2,3,4,22	electrical 101:4,5 105:5 107:1	engine 32:21 39:16 48:25	exceeds 119:7,8,16
divider 94:14,16,22,23 95:2,6, 8,9 97:14 102:25	electronic 71:10 154:15	engineering 105:5	exclusively 17:8 65:2
dividers 102:24 108:2,3 109:3,5	electronics 91:19	ensnare 103:16	Excuse 99:8
divides 94:24	element 17:19 65:3 82:19 84:23 90:9 91:7,10 92:1 99:25 100:6,16,21 101:24 102:2,19 103:16 118:4 127:24 131:6 142:19 143:7	ensure 129:6	executed 8:1
document 23:22 76:12 83:10 86:12 125:24 131:4,13	elements 17:16 84:16,19 87:21, 24 110:20	ensuring 129:13	exercise 18:10
documents 125:17 126:1 130:24	eliminates 106:6	entire 141:4	Exhibit 7:17 9:12 10:24 14:15, 25 23:7 24:10 53:12 90:21 125:14 126:4,11, 14,16 127:4,8,17 128:12,14,18 129:11, 19,22 133:19 151:17
Dr.'s 5:25	embodiment 34:24 35:9 37:1 39:18, 23 40:7,15 57:13 59:22, 25 60:9,17 62:16,22,24 63:6,13,16 66:15 70:22 72:18,24 73:4,13,21 101:14 102:5 103:21 104:2 105:16 115:9	entities 9:18 10:2	exist 12:13
draft 7:21	embodiments 73:6	entitled 82:11	existing 110:3
draw 123:16 124:4,18 134:17	emergency 78:16	entity 9:16,20,22	exists 37:18 104:10 149:19
drawing 71:7	enable 16:15 155:11 159:10,15 160:12 161:4	entries 153:5 154:23,24	exit 132:10
drawn 63:15	enabled 28:6 45:5,7,14,25 46:1 49:15 52:8 92:14 152:10,11,17,20,21 153:6 154:25 155:6	equals 96:12 99:17 105:5	exiting 132:9 142:4
drive 68:15	enables 116:16	establish 104:21,24	exits 132:8 133:7 142:7
driving 68:10	end 32:13 52:16 62:1 80:9	evaluation 90:11	expect 72:22 73:9,11 122:21 123:21
drop 124:6,20 125:1		evidence 67:5 88:13 91:14,22 118:5,10 119:2	expectation 159:10
Dulany 67:17,22		exact 9:20 36:21 40:12 50:2 53:13 59:7,9 64:1,11,13 66:6 71:22 102:16 130:23	explain 11:21 12:3 94:21 110:19,25 111:17 114:9 140:23 151:24
DULY 5:11		EXAMINATION 5:15 151:1 158:9	
E		examined 5:12 67:2	
earlier 44:11 46:11 84:9 113:24 143:3,15,17			

explained 113:22	21 73:25 79:8,10,11,16, 17,22,23,24 80:3,11,12, 14,15,17,25 81:7,20 88:5 92:12,15,16 93:3, 9,14,16,25 94:1 96:24 97:1,17,22 98:3 103:6, 11,22 107:24 109:2,11 110:21 111:1,13,17,19, 20 112:6,8,10 113:13 114:12,16,17,25 115:20 116:9,15 117:6 118:6 120:18 121:24 124:13 131:13,16,20,23,24 134:11 136:9 137:6,23 138:8,24 139:8,10,12, 13,14 143:21,23,25 144:1,3,5,6,8,10,24 145:9 148:9 153:2 157:22 158:4,18 159:1	fits 111:18	11,22 36:7,15 37:23 38:9,22 39:9,21 40:25 43:13 44:4 45:8,18 46:8 47:13,23 48:21 49:19 50:12 51:20 52:19 53:20 54:12,23 55:5,24 56:14 57:1,16 58:3,21 59:15 60:14 61:5,16 62:9 64:2,15 65:10 66:11,24 67:5 68:2,21 69:19,24 70:7 71:5,16 75:6,23 76:15 77:5,13 78:14 80:20 85:16,23 86:9,20 87:25 88:22 89:17 91:24 92:20 93:7, 23 95:5,24 96:10,18 97:5 98:19 99:13 100:8, 22 102:1,21 103:19 104:12 105:1,22 106:11 107:11,15 108:15,21 109:19,21 111:3,14 112:12 113:7 114:6,24 115:24 116:10,25 120:1,13 121:5,12 122:2,18 124:7,22 126:18 128:16 132:5 133:5 134:3,13 135:5 136:6 138:23 140:6,16 141:16 142:9 144:7 147:21 148:12 149:2,21 150:10 159:6,22 160:3, 19
explanation 116:15	fitting 112:1	forming 83:6 84:3 90:2,19 92:2 118:8,21	
explicit 76:21	fixed 105:6	forms 90:24	
export 132:8	flashing 78:15	forward 63:20	
extends 81:8 142:20	flexibly 17:23 20:8 47:9 53:13 54:1,9 55:7,19 56:16 74:8 128:8 155:8	found 73:20	
F	flipping 44:18	Foundation 19:19 50:11 51:19 52:18 53:19 57:17 58:2 62:8 64:16 66:12,25 68:3,22 69:17,23 75:5, 24 76:14 77:6,14 86:10 88:21 92:19 93:8 95:4, 23 96:9 99:6,12 100:7, 23 101:25 102:20 103:18 104:11 105:2 108:22 109:18 114:5 116:11 117:1 118:11	
F1 97:9,10,18 98:15,17,20	flow 29:11 34:10,18 35:13 36:3 39:4,16,20,25 45:1 49:23 50:22 57:20 70:2 81:21 106:7 134:19 138:1 153:20 154:7		
F2 120:20 157:22 158:1	flowing 29:6,7,8,9,13 38:4 40:20 137:25		
face 130:17	flows 140:10		
fact 43:16 52:13 69:13 75:19 100:19 158:24	focus 81:25 131:6		
fails 99:25	focused 160:5		
fall 14:2 28:9 29:1 30:4,10 50:9 57:13	focusing 6:14 38:16 65:1 112:25 113:11		
falls 29:18 44:1	follow 18:19 47:2 53:21 131:22		
familiar 9:17 41:14 77:15,20 122:5	foreign 130:19 131:3		
feature 42:19 148:18	forget 149:8		
features 150:7	form 11:8 13:13 14:3 15:18, 24 16:11 18:16 19:18 21:10,20 22:25 23:15 24:5,19 25:2,16,22 26:23 28:11 29:3,20 30:5,12,22 31:6,16 32:3 33:12,24 34:7,15 35:3,		
feel 9:11	figures 61:18 66:17 70:24 72:3, 6,8,13,15,25 73:3,11, 18,21 74:21 79:9,11,14 110:21 111:2,13,18,20 112:2,9 113:13,23 114:3,10,16,22 115:21 116:3,4		
felony 150:18	file 148:22		
figure 16:8 17:3 21:7 23:3,11, 13 39:23 48:18 49:11 51:4,12 56:18 57:2,7 61:18 63:10 64:5,21,22, 25 65:19,21 70:16,18, 20 71:1 72:11,13,17,19,	filed 8:9 10:14 120:24 127:2, 3,10,11 128:2,3		
	filing 128:11		
	final 42:20 89:11 118:3 150:13		
	finally 89:12,21 90:9 91:6 130:25		
	find 72:16 128:1		
	fine 5:25 139:25		
	finish 6:17		
	firstly 90:20 121:15		
	fit 111:24 113:1,25		

119:25 120:14 121:13 122:19 124:8,23 128:15 132:4 133:4 135:4 136:5 138:22 140:7,17 147:20 148:11 149:3,20 159:7 160:4	8,12,16,21 73:7,9,14,15 101:15 102:6 103:7,12, 22 104:1 105:16,17 106:5,14,15 109:13,21, 23 120:20 138:9 148:8, 25 149:5,9,11,14,17 150:8,10 153:6,7,16,18, 22,23,25 154:4,6,8,11, 12,17,19,21 155:21,22, 24 156:2,6 157:19,24 158:4 159:9,14,19 160:1,9,11,12 161:2,3	Guide 6:22 guys 78:19 151:7	115:17 116:5,20 117:10 118:19 120:7,23 121:6, 22 122:14 123:8 124:16 125:4 127:1 128:20 132:22 133:9 134:8,24 135:18 136:19 139:16 140:12,20 142:6,16 144:22 145:18,22 148:5,24 149:15 150:12,23 151:6,9 158:7,11 159:17,23 160:14 161:5
four-word 63:24		H	
fourth 27:16,17,20 156:5	fused 73:22	half 89:23 134:17,25 135:1	
fragment 89:9	fuses 106:13 154:14	hand 5:8	head 8:6 137:8
frame 75:15		happen 155:22	headlights 13:5,7,10,11,21 14:1
fraud 150:21	G	happening 40:11 43:10	hear 154:11
free 9:12	gather 42:18 63:21	hardware 35:25 110:19 111:17 113:2,12 114:2,9,22 116:8	heard 90:22 154:12
freshman 105:5	gathering 10:15 44:19 65:5	hardwired 132:17	heavy-duty 120:4
front 66:9 67:16 79:25	gave 52:9 137:4 141:11	Hawkins 5:17 11:11 13:17 14:11 15:19 16:6,23 18:21 21:4,17 22:2 23:6 24:1, 9,23 25:13,19 26:7 27:15 28:24 29:16 30:1, 6,20 31:4,13 32:1,10 33:16 34:2,11,21 35:7, 14 36:4,11,23 38:6,13 39:6,17 40:4 41:4 43:22 44:13 45:11 46:3,15,20 47:1,17 48:3 49:10 50:1,24 52:6 53:8,23 54:20 55:1,11 56:3,23 57:4,24 58:6,24 60:10, 20 61:13,21 62:13 64:10,24 65:23 66:19 67:8 68:12 69:7,20 70:4,12 71:13,19 75:17 76:7 77:1,9 78:1,17,22 79:1 80:24 85:19 86:5, 14 87:19 88:11 89:8 90:1 92:3 93:2,13 94:2 95:12 96:6,13,23 97:12 99:2,7,20 100:11 101:11 102:15 103:3 104:5,19 105:14 106:8, 18 107:18 108:16 109:7 110:5,12 111:5,23 112:24 113:8 114:20	helping 42:18
fulfill 103:23	general 72:1 80:8 96:20 123:17 124:24 154:12		helps 24:3
full 5:19 89:10,13	generally 25:6 137:13,14		high 13:7,12,21,23 14:1,8 28:5 52:4 124:3 125:1 152:14,19
fully 23:5 57:11	give 6:10 46:22 48:11 54:16 95:13 136:23		high-current 33:6 35:13,24 36:2 39:24 40:20 49:24 50:19 53:1 85:10 88:7, 15 89:24 138:7 152:5, 18 156:4
function 71:9,12 95:10 97:11 98:16 99:18 105:11 112:10,22,23 117:6	giving 14:10 60:1		high-powered 121:20
functionality 16:19 101:10 109:4 111:22 112:5 115:2 116:3,7	good 110:6,7		higher 85:10 88:15 89:2 106:6 124:5
functioning 123:15	great 6:1,7 7:16 9:8 46:21,24 78:21,22 80:1 98:4 104:6 145:18		highlight 80:4 146:3 147:2
functions 114:11 115:19 145:3	ground 98:10		history 96:20
fuse 33:3,5,8,20 34:4,9,17, 24 35:1,8,12,15,16,18, 20,23 36:1 37:7,21 38:20 39:24 40:5,7,13, 17,22,23 41:1,5 49:15 50:16,18 57:11,19 72:5,	grounds 117:12 118:9,22 123:11		hold 62:17
	guess 13:20 84:17,19 108:11 120:8 128:8 132:23		

home 67:25 68:1	illuminated 14:9	independently 9:11	120:9 121:23 122:11 123:12,14 157:7
hone 80:12	illustration 73:25	individual 136:12	Inskeep-johnson 118:9,22 123:11
hop 67:20,21	imagine 8:8 68:15	induced 124:20	instance 54:15 55:9,10 77:17 125:22 157:5 160:10
hour 10:9 46:18 78:18 145:16	immediately 14:23	industry 154:14	instances 19:10
hourly 10:7	impedance 96:21 98:8,9,22 99:17	inform 71:9 76:12	instantaneous 119:6,7
Hundred 139:25	implement 112:19 113:19 115:11 116:22	informed 11:14	instituted 8:12
hypothetical 14:5 57:18 58:16 59:6 67:1,10,18,25 68:4,23 102:23 104:15 105:7 106:17 142:10	important 22:13,22 147:22	inhibit 49:22 53:3 143:2,3	instrument 16:17 56:18
hypothetically 99:14 122:23 149:13	include 13:11 16:3 18:2,10 29:24 73:7,14,21 78:5 123:20 125:7 130:9 149:9	inhibited 28:4,7 32:15,16,25 33:3,6 37:20 39:5 40:19 43:8,11 44:20,23 45:6, 17 46:7,9,13 47:3,11,22 48:18 49:3,5,8,23 50:5, 21 52:3,9 53:3,4,6,18 54:3,10 55:15 57:19,23 58:1 142:25 143:8	intact 35:15 40:13,17,22 49:15 57:11 159:19 160:1
I	included 150:2	inhibiting 44:24 54:22 106:7 153:19	interest 10:1
idea 127:13 132:10	includes 127:5	inoperable 123:3 154:7	interested 26:16 93:18
identical 17:22 61:2 65:6 100:3 128:23	including 71:14,20,24 83:13 102:9 149:14	input 80:21 82:21 144:14,15, 20	interface 132:18
identically 66:8 100:18	inconsistent 29:15	inputs 144:13,19 152:13	internal 91:15
identification 115:7 117:7	incorporate 111:1,12 113:13	insert 58:16	internet 8:25 9:4
identified 49:7,21 50:13,22 51:1, 13,16 52:12,16 87:7,14 88:6,7,8 112:21 157:9	incorporated 112:9 113:2 115:21	inserted 58:18	interpret 144:18
identifies 52:17 64:21	incorporates 114:3	inside 147:25 148:1	interpretation 64:14
identify 49:6 72:4,7 87:12 134:7 147:8 157:11	incorporating 112:1	Inskeep 117:12 118:6 120:2,16, 24 121:24 122:6,7,23, 25 123:3,4,18,19 156:12 157:13,14,16, 18,21,23 158:3	interrupt 127:15
identifying 51:7	incorporation 114:21	Inskeep's 118:20 119:4,12,19,22	intervals 6:16
ignore 19:15	incorrect 82:20 134:4		intrinsic 67:4
illuminate 13:5,8,10,15,22 14:6,7	independent 8:24 9:3 11:18,23 12:2, 5,12,14,18,22,23,24 13:15		involved 7:24 9:21,24
			involving 97:8
			IPR 7:6,7,12 8:12 10:14,21

82:3,24 88:24 89:7 110:19 111:16 125:14	knowledge 147:24 154:21	lighting 122:4	long 15:20
IPR2024-00222 6:15	L	lights 13:15,19,23 14:6,7,9	longer 33:9,21 34:5 40:14
IR 96:12 99:17 105:5	label 80:9	likewise 29:10 100:21	looked 64:17 97:18 117:3,4 131:1,2 150:2 152:12
iron 129:7	labeled 7:17 27:24 80:4 81:9	limit 115:1,4 116:1 121:16	lot 18:17 120:25
isolation 16:8 17:3 18:8,12	lacking 111:25 112:4,7,11 113:14 148:8	limitation 11:19,22 12:1,4,8,10, 11,12,16,19,21,22,24 14:8,10 19:23 20:12 31:8 37:24 61:9 64:9 89:1 102:5,12,14 104:4 129:1 131:3 143:15 148:3	lots 154:14
ITC 9:23	language 36:10 51:2 55:2 58:4, 11,15,19 59:8,10,19 60:2,25 61:7,23 66:17, 18,21 67:2,3,4,5,7,9 68:25 69:2 74:3 118:25 125:8,12 130:2,6,23 131:6 142:19,21 143:12 147:1 160:6,23	limitations 30:18 43:25 88:25 102:9	low 14:8 123:2,4,12 152:4 153:24
item 143:25 144:3 156:5		limiting 12:14	low-current 75:13 77:20,23,24
items 47:9 93:10		lines 14:25 15:14,21 16:7 17:2 18:7 19:2 21:6 22:10,11,12 53:12 58:11 59:1,8 62:19,24 64:19 74:2,4 85:2,9 89:11	low-power 76:5
J	laptop 78:10	listed 10:13 25:7 27:23 71:2 155:10	low-voltage 50:15
jack 132:1,2,24 133:1	laptops 77:18	listen 71:22	lower 96:25 97:16 125:3
JANUARY 5:2	leads 130:13	literal 144:19	lower-current 83:13 117:18,23
jump 33:10,22 34:5 81:10 112:15,16,20 113:18 115:12 119:3,15 147:19 148:15 155:13	leave 131:18	lithium 129:7,8	M
jump-start 51:11 107:13 159:4	leaving 67:19 132:11 133:6	live 6:2,3	made 41:21 70:15 122:12
jump-starting 28:4 73:2,17	left 67:22 68:17 80:3,22 81:12,15 138:8 144:14	load 124:12,18,25 125:1 134:16,22	Madison 67:16
jumper 49:14	legal 11:14 149:8	logic 53:22 54:24 74:14 152:12	main 67:15
K	lengthy 22:6	logical 27:20 152:15,22	make 7:5,14 18:1 22:6 23:25 24:21 30:8 44:19 48:9 60:23 74:13 79:13 96:2 98:15 118:4 127:7 136:20 141:8 146:6 148:6 149:11,17 153:11 158:13
K1 81:4,5 106:21 112:19 113:19 115:11	license 5:6		maker 51:7
Kevin 8:21 150:14	light 78:15,16		makes 14:12 108:5 146:18
kind 67:10 118:3 149:14 157:3	lighter 121:1,16 132:2 157:4		making 78:24 107:1 110:7
knowing 26:16 93:19	lighter-style 122:1		

male 132:1,2,24 133:1 malfunctioning 144:16,17 matches 139:13 materials 10:12 84:10 mating 133:1 matter 8:4 9:16 maximum 115:1,8 137:13 138:13 141:11 157:8,14 MCU 20:5,6,7 45:4,13 147:10 meaning 12:12 63:23 65:6 67:11 157:3 meaningful 11:19 means 11:22 12:4 21:22 33:9, 21 34:4,13 102:6 meant 47:4 137:16 measure 94:17 96:3,5,7,21 99:19 101:17 102:25 104:22 108:4 115:3,4 146:4,19 measured 94:11 99:10 146:15,21 148:21 measurement 101:18 measures 96:15 104:17 146:9 measuring 96:15 101:20 104:25 105:10 108:1 110:1,4 112:21 114:18 115:1, 13,14 116:1 117:7,8 mechanical 156:25 157:1,2	meet 14:7,9 20:9 31:1,22 32:2,8 44:10 60:17 61:9 64:9 66:17,18 102:12, 13 104:4,23 147:14 meeting 8:21 meets 31:22 44:5,7 102:13 104:24 melted 153:18,22 154:4 memory 92:9 mention 9:13 11:16 74:12 78:21 126:4 154:2 mentioned 33:2 48:5 57:14 75:9 79:8 92:23 100:9 103:8 105:15 113:1 131:23 148:9 mentions 10:5,11 12:1 met 148:3 met all 102:9 methods 96:2 microcomputer 20:6 microcontroller 16:15 20:7 56:21,22 milliamp 135:1 milliseconds 114:19 115:2,4,6 116:2, 18,19 mind 80:16 Minneapolis 67:23 minus 98:9,12,23	minutes 110:10 mis- 62:17 misheard 94:19 missing 65:25 107:17 113:4 130:4 misspoke 62:18 113:25 mobile 74:9,24 75:9 76:3,10,17 77:2,10,15 78:8 83:12 122:17 mode 20:16 23:20 24:13,14, 15,17,24 25:1,4,9,12, 15,18,21 26:3,5,6,9,10, 12,22 27:1,3,4,5,6,8,10, 17,24 28:2,9,14,18 29:1,5,7,8,9,11,12,13, 18 30:4,10,15,25 31:1, 8,10,12,23,24 32:6,7, 13,19,22 34:19 35:2,10, 21 36:6,14,16 37:5,11, 12,15,17,22 38:2,4,21, 24 39:4,12,22 40:3,11, 14,17,19,21,23,24 41:2, 3,6,7,8,9,12 42:4,5,22, 24,25 43:4,6,11,18,19, 20 44:12,16,17,18,21 45:2 46:14 47:15 48:13, 23 49:6,7,8,9,18,20,25 50:10,14,16,20,23 51:18,25 52:3,5,11,14, 15,25 53:2 57:14,21,23 86:25 87:2,6,8,18 112:19 129:4,22 135:11,15 138:6 142:23 143:11,14,16 145:14 148:14 152:8,9,17,19, 20,23,24 155:19,20,24 159:12,15,20,21 160:2, 8,18 161:1,3 modes 17:5 21:9,16,19 22:1, 14,17,19 23:14 24:4 25:24,25 27:13,14 28:12,16,20 29:7 31:21 32:17 37:11 152:6 155:16,17 156:9 158:20	159:5 160:25 modified 67:7 module 115:12 moment 17:25 54:14 62:17 125:21 156:15,21 momentarily 124:20 momentary 124:3,6 monitor 144:15 monitoring 100:4,20 101:9 112:15 113:17 145:2,3 motivated 112:18 113:19 115:11 move 22:9 78:17 moving 24:11 multi-gear 85:5,11,14,22 86:1,3,7, 18 87:24 88:4,16 91:17 multiple 15:7,14 16:1 21:13,14 23:18 116:23 133:16, 19,20,21,23 135:3,23 136:2 138:15,21 141:2, 5 142:5,7 N named 9:22 narrowly 47:18 necessarily 37:8 72:22 134:22 needed 21:18 41:18 42:1 87:18 105:12 110:25 111:11 neighboring 67:21 68:16
---	---	--	--

night 26:13 91:3 103:4 node 80:4 98:15,17,20 nonoverlapping 64:5 65:20,21 Nook 145:25 146:19 147:1,6, 12 148:7,15,17 149:7, 19,25 150:5,7,8,9,11 Nook's 146:3 147:16,18,24 148:10 149:1,11 normal 101:5,9 103:1 107:7 108:5 119:4,16 123:14 North 6:3,5 67:24 notation 81:15 note 6:20 119:8 noticeably 140:4 141:10 nuance 63:4,19 number 5:6 17:17 19:25 23:17 125:17 126:20 129:15 numbers 142:14 O oath 5:12 6:8 Object 11:8 47:13 71:16 85:16, 23 107:15 132:4 134:3 Objection 13:13 14:3 15:18,24 16:11 18:16 19:18 21:10,20 22:25 23:15 24:5,19 25:2,16,22 26:23 28:11 29:3,20 30:5,12,22 31:6,16 32:3 33:12,24 34:7,15 35:3, 11,22 36:7,15 37:23	38:9,22 39:9,21 40:25 43:13 44:4 45:8,18 46:8 47:23 48:21 49:19 50:11,12 51:19,20 52:18,19 53:19,20 54:12,23 55:5,24 56:14 57:1,16 58:2,3,21 59:15 60:14 61:5,16 62:8,9 64:2,15 65:10 66:11,24, 25 68:2,3,21,22 69:17, 19,23,24 70:7 71:5 75:5,6,23 76:14,15 77:5,13 78:14 80:20 86:9,20 87:25 88:21,22 89:17 91:24 92:19,20 93:7,23 95:4,5,23,24 96:9,10,18 97:5 98:19 99:6,12,13 100:7,8,22 101:25 102:1,20,21 103:18,19 104:11,12 105:1,22 106:11 108:15,21 109:18,19 111:3,14 112:12 113:7 114:5,6,24 115:24 116:10,25 118:11 119:25 120:1,13 121:5, 12 122:2,18 124:7,22 126:18 128:15,16 132:4 133:4,5 134:13 135:4,5 136:5,6 138:22,23 140:6,16 141:16 142:9 144:7 147:20,21 148:11,12 149:2,20,21 159:6,22 160:3,19 obviousness 110:24 111:11 114:4 117:5 occurs 153:18 October 8:2 offer 93:15 office 6:21 67:12,19 one's 27:12 op-amp 92:15,16 93:4 open 106:7	operable 154:9 operate 52:24 77:16 145:13 155:23 159:12,20 160:1,7,25 161:2 operated 114:12 148:19 operates 124:10 operating 17:5 20:16 21:9,16,19 22:1,14,17,19 23:14,20 24:4,12,13,15,17,24 25:1,4,9,12,15,18,21 26:3,5,6,9,10,12,22,25 27:1,2,4,5,6,8,9,17,24 28:2,8,9,25 29:17 30:3, 9,15,24 31:1,21 32:6,7, 13,17,19,22 34:19 35:2, 10,21 36:6,14,16 37:5, 15,17,22 38:2,21,24 39:12,22 40:2,3,11,14, 17,19,21,22,24 41:2,3, 6,7,8,9,12 42:4,5,21,24, 25 43:4,6,10,20 44:7,8, 11,15,16,18,21 45:2 46:14 47:15 48:15,23 49:5,6,7,8,9,18,20,21 50:10,14 51:17 52:11, 14,15 57:14 86:25 87:1, 2,5,8,17 129:4,22 135:11,15 136:13 138:6 142:23 143:11,14,16 144:24 148:14 152:6,7, 8,9,17,18,20,24 155:19, 20,23 158:20 159:5,12, 15,20,21 160:2,7,8,18 161:1,3 operation 123:14 145:14 154:17 156:9 operations 74:19 115:19 117:6 opinion 60:1 67:5 82:18 83:1,2, 5 90:5,19,23 92:2 93:15 94:1 107:16 117:5 120:21 147:14 150:3 opinions 7:25 8:4 10:15 83:7	90:2 92:25 118:8,21 opposed 146:13 opposing 6:20 opted 61:23 option 47:12 48:8 57:9 76:9 options 56:10 74:22 116:23 order 21:19 78:11 112:22 ordinary 68:13 116:23 119:21 120:10 original 12:14 19:24 107:10,11 147:16 originally 109:16 OUT+1 81:10,17,18,20,22 109:14 OUT-1 109:14 outdoor 20:9 outlet 121:9 output 13:7,12,21,23 20:2,3,4, 9,13,14,15,16 21:14,15 23:19 25:10 28:3 31:20 32:6,14,20,23,25 33:7, 10,22 34:5,10,19 35:13, 24 36:2,17,18 37:3,4, 10,13,15,25 38:2 39:1, 2,3,13,14,15,24,25 40:2,9,10,20 43:7 45:2, 5,13,20,21,22,23,24 46:6,12 47:16,21 48:12, 24,25 49:2,4,12,16,22 50:15,17,18 51:9,10 52:1,21,22,23 53:1,2,5, 14 54:2,7,9,14 55:3,7, 15,17,19 56:9,17 57:10, 11,22 58:5,10 59:18,24
--	--	---	---

60:5,7,19 62:25 63:2,6, 8,10,11,17 64:7,21 65:14,15,17 73:1,16,22 74:18 75:19 76:20 77:3, 11 78:3 80:19 81:10 85:3,4,10,12,14,22,25 86:1,3,7,8,19,24,25 87:1,24 88:3,4,7,8,15, 16 89:24 91:17 97:1 112:15 119:9,17 120:12,20,22 123:1 124:5,15 131:8,15,16, 17,21 132:1 133:1,13, 16 134:10 135:7,9,10, 12,13,14,15 136:8,14, 16 137:5,19,21,22 138:4,14 139:1,2,6,7,14 141:2,5,13,18,20,25 142:2 144:15,20 145:2, 4,6,7,8,10,12 148:15 151:18 152:3,5,18 153:2 154:22 155:6,8, 25 156:4 159:11 161:4	22,24 104:2,3,7,10,17, 18,22,25 105:9,11,12, 19,24 106:1,2,4,9,13, 16,22 107:5,6,11,12,21 108:7,9,13,20,25 109:6, 15,22,24 110:3 127:21 128:3,4 129:9,16,23,25 130:6 146:6,12,16,20, 23 147:4,8,15,17 148:2, 4,7,16,19,21,23 149:5, 14,18,23 150:3,8,10 153:17	141:18,19,24,25 142:22 143:11 144:25 145:6	paragraphs 11:13 15:12,16,25 16:3, 22 18:3,23 20:23 83:10 86:23 90:16 91:11,19 92:4,7,22,25 117:14 118:7,20,25 129:19 146:24 147:11
outputs 16:16 27:5,22 31:1 32:6,24 38:1 39:2 40:1, 18 53:18 56:19 69:12 73:1 75:13 76:17 80:23 83:13 87:23 88:6,25 91:17 92:11,18 93:6,16, 17 131:14 133:22,23 136:16 139:15 152:10 155:20	overlap 61:15,20 62:1 63:1,13, 18 64:23 65:16 70:1	pages 82:10,24 83:7 117:3,13	parallel 69:10,14 98:22 144:5, 19
outputs' 136:17	overlimit 116:2	pair 59:22 154:4	parameter 146:15,21
outputted 32:5	overload 127:21,25 128:3,5 129:10,16,23,25	paragraph 9:8,13 10:4,10,11 11:16,25 12:6 14:14,16, 20,24 15:3,4,17 16:10, 12,20 17:6,11,15,21 19:5,9,13,22 20:17,20, 22 21:1,11 22:4,9,10, 15,24 23:1,25 24:4,6,11 26:4,20 27:7,9,16,23 28:13 32:11,14 34:23 36:25 37:16 38:7,15,17, 19,23 39:5,8 41:10,23 42:1,8,10,12,14,16,20 43:15 44:15,20 47:6,7, 14 48:11,13,22 57:15 58:7,8,10 59:1,9,14,16 60:2,4 61:4,17 62:7,20 63:11,16 66:2,4,6,8,9, 22 73:24 74:3,12,15 79:3,5 81:24,25 82:1,17 83:1,15,20,22,25 84:4, 6,13,14,17 87:11 88:17, 19 89:10,11,12,13,19, 20,22,25 90:4,6,8,10, 13,14,22,24 91:1,5,6,8, 25 92:1,10,13 93:19,22 94:4,6,12 99:21,22 100:12 101:2 106:19,24 107:6,9,24,25 108:23 109:3,9,13 110:13,17 111:15 113:11 117:3, 11,13 118:1,2,6,12 119:20 123:9 125:6,7, 15 126:6,8,9,19 127:10, 12,19,23 129:5,12,22 130:5 131:5 136:23 139:10 142:19 145:24 147:3 151:14,16 152:1 153:14 154:24 155:17 158:12,16	parent 125:13,17 126:3,15 128:11 130:12
outputting 25:5 30:15,24 37:13 43:4,7,24 48:16 49:1,13 50:3,7,14 52:4 55:21,23 74:23 75:3 121:11 134:14 136:15 138:12 141:9 144:25	overview 15:5 16:1 20:25 21:24	paragraph's 158:15	part 8:18,23 9:2 14:20 16:24 21:7,24 22:6 23:10,19 34:1 35:6 39:7 40:18 58:12,14 60:21 74:11 81:5 82:1,5 84:4,22 85:18 90:15 91:21 97:13 109:25 112:1 113:6 117:15 118:14 137:11,15,18 149:10
over- 104:22	ownership 10:1		Partially 72:10
overcharge 130:6	oxide 129:8		parts 15:8,15 19:1 23:23 116:16
overcurrent 22:18 34:9,17 91:16 92:14,17 93:5 100:4,19 102:4,7,11 103:10,20,	P		party 51:7
	P-O-S-I-T-A 14:18		passing 26:13 91:2 103:4
	p.m. 161:8		Patariu 8:22 11:8 13:13 14:3 15:18,24 16:11 18:16 19:18 21:10,20 22:25 23:15 24:5,19 25:2,16, 22 26:23 28:11 29:3,20 30:5,12,22 31:6,16 32:3 33:12,24 34:7,15 35:3, 11,22 36:7,15 37:23 38:9,22 39:9,21 40:25 43:13 44:4 45:8,18 46:8,17,24 47:13,23 48:21 49:19 50:11 51:19 52:18 53:19 54:12,23 55:5,24 56:14 57:1,16 58:2,21 59:15 60:14 61:5,16 62:8
	pack 20:13,14 32:19,23 35:2, 10,21 36:17 37:25 38:25 39:12 40:8 48:24 52:21,22 58:10 59:17, 24 60:5,7,18 61:10,11 63:1,3,8,18 64:7 65:13, 15 69:2 73:1 78:6 85:4 86:24 87:4,5 102:3 129:2,3,7,8 135:8 136:15 137:20,21,24 138:1,15,25 139:2,6,8		

64:2,15 65:10 66:11,24 68:2,21 69:17,19,23 70:7 71:5,16 75:5,23 76:14 77:5,13 78:14,20 80:20 85:16,23 86:9,20 87:25 88:21 89:17 91:24 92:19 93:7,23 95:4,23 96:9,18 97:5 98:19 99:6,12 100:7,22 101:25 102:20 103:18 104:11 105:1,22 106:11 107:15 108:15,21 109:18 110:10 111:3,14 112:12 113:7 114:5,24 115:24 116:10,25 118:11 119:25 120:13 121:5,12 122:2,18 124:7,22 126:18 128:15 132:4 133:4 134:3,13 135:4 136:5 138:22 140:6,16 141:16 142:9 144:7 145:15,20 147:20 148:11 149:2,20 151:3, 12 158:5 159:6,22 160:3,19,21 161:7	25 70:6 72:5,11,16,25 73:16 81:8,17,19 85:3, 15,21 89:24 94:10,17 117:18 138:7 153:19 157:20	111:16 112:13 113:14, 16,21 114:8 115:6,10, 16 116:15 117:3,9,13, 16,17,24 118:15,17,23, 25 119:2 125:14 147:9, 12 148:1 150:1 156:17, 20 157:7,11	plugged 45:6,15 121:15 123:21
patent 6:21 7:11,12 8:3 9:13 10:8 14:25 15:6,7,8 17:9,10,17 18:6 19:24 21:2,7 23:8 25:18 33:2 35:9,20 37:1 39:19 42:9,13 45:3,12 51:4 60:9,17,24 61:18,23 64:5,18 66:18 67:3,6, 12,19 68:6,11 70:13 76:11 96:25 97:2 100:3, 18 101:15 125:8,13,19 126:15 128:11,13 131:24 134:12 136:25 143:23 144:4 148:1,9, 22 149:9,10,13 152:7, 21,25 153:10 154:18 155:4,14	paths 56:19 61:19 63:12 64:23 65:20,22 68:7 69:11,16 70:11 71:15, 21,25 72:2	petition's 84:16	plugs 120:11,25 121:3 122:4, 13,16
patents 147:24,25	pause 14:4	PH.D. 5:10	plural 55:4 133:17 135:3 136:2 138:16
path 33:10,22 34:5,14,18 40:16 50:19 52:1 58:9 59:17,23,24 60:4,6,16, 18 61:8,11 62:5,14,15, 22,25 63:2,7,8,14,17 64:4,6 65:12,14,16 67:25 68:1,20,24,25 69:1,3,6,8,9,13,21,22,	PCT 130:24	phone 121:2,8,15 122:17,21, 24 123:2,7 132:16 155:10	point 6:25 26:2 27:9,16 82:23 83:19 84:3 92:6 98:11, 12 127:8 150:4
	PDF 9:11	phones 74:9,24 75:9 76:3,10,17 77:15 78:8	pointed 20:1 87:15
	people 99:16	phosphate 129:7	pointing 89:25 115:16
	percent 139:25	phrase 14:23 53:13 59:2 60:11 63:23,24 64:12 68:14 74:5 94:5 104:6 106:13	points 27:18 41:13 82:13
	perform 71:12 111:19 114:11 115:2 125:11 145:3 160:18	physically 67:14 149:7	port 20:13,16 39:14 40:2,10 45:23 49:3,4 53:2,5 57:20,22 58:5,10 59:18 60:7,19 61:12 63:2 64:8 65:14 85:12,14 86:24 87:1 117:18,19 120:22 121:23,24 122:25 123:5,13,15,22 124:10 131:9,12,14,18,21,25 132:3,10 133:3 135:7, 10,13,14,15,16,22 136:13 137:19 138:20 139:17,19,20 142:2,3,5 157:9,12,17,20
	performed 114:11	pick 67:17 156:8	port's 119:9 135:13
	performing 82:16	piece 19:22 27:6 29:23 73:14 90:25 130:4	port.' 65:17
	performs 112:22	pieces 19:21 73:13 89:18 102:13 109:20 148:1 149:4	portable 25:8 38:25 70:21 71:8
	period 68:16	pin 98:9,12,23	portion 69:12 110:17,20 111:1, 12 112:8 113:12,23 114:9,12,16 115:19 116:8 117:24
	person 8:19 21:5 23:12 68:15 76:12 93:4 97:21 113:5 116:22 119:21 120:10	place 68:17,18 94:17	portions 41:12,14,15,25 73:4,20 111:19
	Peterman 5:4	places 68:10 84:12	ports 20:15 25:6 36:18 37:13
	petition 8:9 10:14,18,21,25 79:5,7,10 82:3,5,10,11, 17,25 83:3,8,9,11,18,23 84:1,2,10,13,17,18,20, 23,24 85:13,20,24 86:2, 7,15,18,22 87:12,23 88:2,12,24 89:20 90:6, 10,21,25 91:1,10,21 92:2,23,24 93:1,11	plug 119:5,13,17,19,24 120:6,16 121:1,10,18, 20 122:1,7,11,22 123:15 132:25 156:18, 24,25 157:1,5,10,25	

38:2 39:2,14 40:10 45:22 46:12 49:2 52:23 63:9 64:21 85:4 89:1,7, 19 117:23,25 124:11 131:8,17 133:8,13,17, 19,20 134:7,20,25 135:3,10,16,23 136:2,9, 14 137:14,22 138:16,21 139:7 140:2,11 141:3,5, 7,8,9,13,20 142:5,7 145:7,8,12	practiced 31:19 preamble 33:17 precise 30:14 precisely 9:20 predetermined 94:24,25 112:20 115:13,14 prefer 5:24 preferred 34:23 35:8 39:18 101:14 104:2 105:16 preliminary 128:22 preparation 8:18,20,23 9:2,5 prepared 8:10,15 preparing 82:23 presence 12:7 present 11:23 12:2,5,11 20:11 presented 14:5 20:17 58:23 68:24 92:21 presenting 20:21 presumption 11:18 12:1,10 prevent 100:19 102:4,11 103:24 104:22 106:2,4 146:11 preventing 105:25 prevention 146:5 prevents 100:4 105:19 148:16	previous 9:18 36:18 47:2 133:24 160:16 previously 27:20 42:17 43:14 44:14 57:7 70:9,15 105:15,24 primarily 9:5,24 77:21 principles 11:14 printed 80:1 prior 9:16 15:11 48:4 141:7 151:22 priority 75:8 125:9 130:19 131:3 153:11 155:5,15 probe 96:4 probes 96:2 problem 107:12 147:17 149:18 proceeding 7:12,16 10:8,15 11:12 128:14 process 101:9 129:13 products 154:15 professor 5:24 6:5 progress 78:24 110:7 proper 65:12 properly 123:15 proportional 105:6 propose 62:6 proposed	110:24 111:10 protect 87:4 91:15 102:7 106:9, 16,22 107:4,10,20 108:13,19,25 129:3 143:10,14,19 144:16 145:6 147:3 148:7 protected 6:21 7:4 protecting 145:11 protection 22:18 23:3,5 30:17 31:21 34:8,16 44:9 72:12 82:9 87:3,8,12, 13,14,18 92:14,17 93:5 101:21 102:3,10 103:21,24 104:2,4,7 105:11,13 106:13 109:6,16,22,24 110:3 123:12 127:13,20,22 128:1,5 129:2,9,10,15, 17,21,23,24,25 130:2 136:10 137:24 138:25 143:10,13,18,24 144:4, 12,13,21,24 145:1,5,11 146:1,4,8,10,25 148:2, 16,20,23 149:5,23 150:10 153:15,23 protects 107:5 provide 8:4 40:8 67:6 99:25 100:16 109:24 111:22 112:22 123:22 124:11, 13 130:7,8 134:21 137:16 provided 59:14 66:13 74:16,17 78:6 83:2,4 97:15 107:16 128:10,13 providing 82:18 83:1,13 123:18 pull 151:15 156:15 158:19 pulling 26:17 purpose 95:1 129:12
---	---	--	--

put 12:12 13:2 67:10 103:7 109:13,23 124:12,25 134:25 135:1 143:12 148:9 150:8,9 154:8 putting 138:18 140:4 Q qualifying 142:21 question 9:1,15 11:15,22,24 12:2,4 13:25 15:20 17:1 18:19 19:21 21:5 22:21 23:12 24:21 25:14 26:19 28:22 30:7,14 31:3 34:1,25 35:6,17,19 37:21 38:16 39:11 41:17,22,25 44:9 45:9 47:5,18,25 48:1,10,17 52:17 56:8,24 58:14 59:12 61:22 62:12 63:5, 20 66:1 68:19 71:18 72:7,15 77:7 80:14 81:16 82:7 83:4 84:25 85:18 86:2,6,13,17 88:9 91:9,12 100:2,17 102:8 104:15 105:20 108:7 110:22 111:6,9 119:14 122:20 124:12,17 126:16 128:9 130:3,7, 13,22 133:13,18 137:19 138:10,17 139:20 140:3 143:5 158:12,14,17 160:21 question's 101:12 questioning 6:17 questions 6:13,25 125:10 150:13, 23 151:4,14 156:11,16 158:5 161:6 quick 17:11 117:16 131:23 158:7 quickly 36:21	quote 52:11,15,16 58:11 62:1 74:2 99:23 117:18 119:16 123:12,13 146:2,4 147:3 quoted 25:11 59:8 116:7 131:7 133:15 quoting 66:2 74:3,6 127:24 R R-I-C-K-E-T-T-S 5:21 R1 81:9 R38 94:13 95:9 100:25 101:3,8,16 106:25 107:25 110:4 R39 97:1,3,8,13,17,23 98:4, 13,22 R41 94:13 95:9 97:8,17 98:13,22 100:25 101:3, 8,16 106:25 108:1 110:4 R59 100:25 R6 81:9 raise 5:7 range 76:23 90:23 rate 10:7 rating 157:24 158:3 ratings 106:14 ratio 94:24,25 reach 16:9,10 17:4 18:14 19:12,14 21:8 22:23 24:3,16,25 25:14,20 26:9,17,21 reached 22:23 26:15 reaches 101:18 106:5 reaching 15:16 22:13 100:12 141:8 read 22:7 23:13 56:15,24,25 65:4 83:9 86:17 89:14, 15 91:21 92:4,6 113:6 119:22 136:24 reading 23:22 88:10 89:20 90:8 108:9 109:4 120:9 146:20 reads 21:6,21 58:17 ready 45:5,14 49:15 159:3 real 17:11 117:16 131:22 realized 147:23 reask 24:20 28:22 71:17 reason 6:10 63:21 93:21 100:15 149:16 reasonable 159:10 recall 8:11,13 9:6 11:7,9 72:10 156:13 receiving 122:16 Recess 46:25 78:25 110:11 145:21 recited 135:21 recognize 94:14	record 5:19 46:18 56:25 58:15 78:23 145:16 recover 125:2 recross 158:7 red 139:11 refer 7:6,10 9:11 14:16 17:11 22:4 32:11 41:10 42:16 58:7 72:3 73:23 79:3 80:25 84:14 90:17 94:3, 5 96:24 99:21 110:13 117:11 125:5 133:8 156:24 reference 16:21 60:3 79:4 82:25 83:8,20 98:11 137:11 143:22 145:25 151:23 153:2 156:12,21 157:14 referenced 11:3 59:20 86:4 156:19 references 8:16 9:6 10:17,18,22 136:8 referencing 41:20 85:22 86:22 106:25 referred 70:15 91:22 118:16 referring 5:22 7:11 15:10 17:15 27:23 38:19 41:11,20 81:11 86:11 93:3 94:9 106:20 110:1 117:12,25 123:11 126:23 130:11 133:11 134:6 143:8,21 156:16 refers 86:15 91:19 117:17,23 132:16 refresh 92:9 regular 6:15 relate
--	--	---

98:2	154:3	responding 24:21	row 17:18 151:19 152:11
related 17:18 86:23 96:12 97:16 99:15 130:18 150:21	report 78:9 152:1 154:24	rest 17:8 148:20	rows 151:17
relates 35:17 47:5 61:22 145:24	reporter 5:4,5,12 56:23	restate 39:11	S
relating 128:8	represent 16:1 132:21	result 64:13	S-H-A-W-N 5:20
relation 75:14	representative 7:25	resulting 114:22	safe 129:6
relative 76:5	require 11:18 117:6 146:9 158:22	retained 9:16	safety 129:13
relay 81:4,6,7,16,19,22 101:6 103:1 106:21 107:8 112:19 113:19 115:11	required 23:23 31:25 38:5,8 51:24 77:12	retract 56:8 84:25	save 156:1
relevance 32:9 66:25 68:3,8,22	requirement 44:21 89:2 90:7 147:15	return 24:10 57:5 81:23 131:5 142:18	scenario 37:18 40:12 43:23 45:16 68:15 101:23 103:14,15 147:19 149:17
relevant 22:19	requirements 20:10 44:6 75:12,13 76:1 103:23	returned 20:19	scenarios 148:2
relied 26:18,21 87:23	requires 32:14 43:11 52:20 72:10 103:20 130:6 135:6 138:13 139:19 141:6 148:14 149:23,24 152:10	returning 37:16 106:19	schematic 70:19,20 71:3,6,7 144:9,10,23
relies 86:7,18 88:24	requiring 32:23 129:21	returns 101:5,9 103:1 107:7 108:4	schematics 71:10
rely 26:16 53:10 128:7 154:10	rereading 113:25	review 10:14 13:14 111:10	scope 14:2 28:9 29:1,18 30:4, 10 44:2 50:9 51:17 57:13 65:6 96:17
relying 24:16 74:20 76:8 89:15	resistance 99:18	reviewed 8:16 10:12,19,24 11:2,4 83:10 84:10 150:1	screen 7:18 9:9 10:5 18:24 23:10 53:11 79:2,25 80:5 81:1 82:1 87:22 110:15 151:7,15
remains 66:8	resistor 94:10,11,17,18 96:8,11, 16,25 97:3,23 98:4 99:4,10,18 100:5,20 101:20 102:24 104:25 108:2 109:3,5	Richardson 110:21,25 111:2,11,13 112:8,14 113:16,23 114:10,16,17 115:9,13, 25 116:9,14,17 117:8	scroll 14:14 58:25 59:3 144:1
repeat 9:1 11:24 22:21 30:2 34:1 35:5 41:21 77:7 81:18 85:17 111:9	resistors 81:9,11,14,22 95:9 98:7 100:25 101:3,16 110:3	Richardson's 112:6 116:22	searches 8:25 9:3,4
repeated 153:7 154:25	resists 81:9,11,14,22 95:9 98:7 100:25 101:3,16 110:3	Ricketts 5:10,20,23	searching 68:13
rephrase 12:15 15:20 33:14,19 36:12 73:10 82:7 113:9 132:7 143:6 158:2 159:24	respect 59:21 64:19 68:7 125:16 129:20 148:13 151:25	rise 12:10	seconds 119:7
replace 103:22 104:1 153:22	respective 69:11	road 13:5,8,10,16,22 14:6,7, 9 68:16	section 15:5,6,11 21:14 22:20 36:19 79:16,21 82:11
		roughly 76:6,19	

89:4 92:22 93:25	series 35:23 98:22	shuts 103:10	size 157:3
sections 21:3 46:17 89:7	set 37:13 45:4 127:21 129:14,16 135:24 139:12,15,21 159:1 160:8	sic 64:22 74:3 75:25 88:23 89:22	skill 21:6 23:12 76:12 93:4 97:21 113:5 116:23 119:21 120:10
segment 145:16	setting 64:25 65:1	side 17:16 80:3,12 96:25 131:11 133:15 136:4 142:24 143:4,7,20 144:14	skip 10:10 58:7
select 17:23 20:8 45:4 47:9,12 54:3,6,8 56:12 106:14, 15	share 79:24 158:13	signal 81:3	slightly 125:2
selected 45:13 48:8 49:12 55:16 57:8	shared 110:15	signaled 51:15	smaller 30:8
selection 71:11	sharing 7:17 79:2,9 81:25 151:7	silent 51:6	solenoid 81:5
selectively 16:15 156:8	Shawn 5:10,20	similar 9:11 44:17 75:16 78:7 91:9 99:3 125:11 157:4	solution 107:10
selects 53:11	Shenzhen 9:14,19	similarly 92:11	something's 43:9
sense 7:14 14:12 48:9 72:1 146:18 149:11 154:12	ships 26:13 91:2 103:4	simple 108:11 153:24	sort 124:18 132:10
sensing 109:6	short-circuit 124:3,19	simpler 22:7	sounds 53:16
sensor 102:23 113:22 114:8,15 115:7 116:17	shorter 18:18	simplifying 31:18	source 80:14
sensors 96:21	Shorthand 5:5	simplistic 13:1	sourcing 142:11,12
sentence 11:25 42:20 43:1 53:9 55:20,22,25 56:7,15 89:14,15 90:24 91:14 92:13 110:23 118:3 128:7	show 20:17 23:7 47:15 61:17, 19 65:18,19,20,25 71:10,15,21,25 72:2 84:18 102:6 125:24 143:12	simultaneous 31:20,24 37:12 43:16 44:7,8	spacings 157:3
separate 17:8 58:17,18 59:4,6, 11,23 60:12,16 61:2,9, 19,24 62:5,15,23 63:7, 15,24 64:4,13,20 65:7, 19,21 66:5,16,22 138:7 147:23,24	showing 9:9 71:8 79:21 81:1 87:21 113:4 114:2 121:24 145:9	simultaneously 30:16,25 32:5,7 42:19, 23 43:5,24 50:3 51:10 140:14 141:14	speak 150:14
separated 56:11	shown 10:4 23:3,11 51:11 66:14,15 79:16,18 88:4 98:8 100:3 109:8 112:5 127:4 128:12 131:24 144:4 151:25 155:17	singular 55:4 56:10 136:2 140:5, 9 142:14	speaking 116:14
separately 28:15	shows 28:5 56:18 131:13 151:17	sitting 62:10 155:16 158:23	spec 97:10
September 8:7		sizable 9:10	species 135:21,24,25 136:1 138:16,19
			specific 9:7 35:5 38:10 62:12 71:11 73:12 79:16 85:1 95:18,20 97:16,18 104:14,16 120:16 124:14 133:18,21
			specifically 9:19 11:10 16:25 20:20 26:19 28:21 38:14

64:20 114:7,13 119:11	50:2,6 88:24 100:24 107:8 119:20 158:21	suggest 108:18	switching 36:6,9 46:17 112:19 113:20 115:12
specification 19:24 20:12,22 21:15, 22 22:6 23:4 26:6,11,12 28:13 29:6 32:4 41:13, 16,18,24 42:2,6 43:15 63:14 75:8 76:3,16,24 97:19 148:17 149:9 154:18	stated 24:6 87:10 149:12	suggestion 116:21	system 72:14 102:16 120:4 121:20 124:19 131:21 140:8
specification's 59:21	statement 46:9 90:11	suggests 112:14 113:16	
spent 10:6	states 35:16 53:17 146:10 152:6,13,15	sum 140:24 141:2,4	T
split 69:14	stating 89:6 107:3 111:15 149:22	summarize 82:12	table 27:20,24 28:5 125:7,10, 15 126:2 128:25 131:11 151:16,24,25 152:22 154:23 155:16 156:5 158:23 159:2
splits 69:10	status 156:9	summarized 82:6,25 83:8	tables 125:24 152:3
sports 7:3	stay 62:1 125:2	summed-together 136:17	tailored 47:18
Spotlight 78:15	stops 154:7	supplied 54:17 75:16 92:12	takes 60:5,6 67:23 68:17,18 94:23 100:17
stage 48:15	street 67:16,17,22	supplies 140:10	taking 105:3
stairs 67:20	strict 76:1	supply 16:16 20:9 53:6 54:15 55:17 56:17 137:15 155:9 157:15,20,25	talk 7:1,2 68:9 96:1 133:19 151:4
standard 77:18 124:5,11 133:16	strike 30:7 64:12	supplying 76:17 80:17	talked 15:3 74:4 136:22 143:16
standards 89:23 90:12 124:1	strong 11:17	support 19:23 20:12,17 41:15, 19 42:2,3 43:15 65:18, 20 66:14 129:1 130:1, 15 143:12	talking 34:24 47:8 73:12,13 83:12 84:15 103:5,6 104:14 108:7 110:15 121:19 140:2 141:7 143:18 145:25 151:23 153:25
start 13:1 30:8 89:11 109:10 112:15 147:19	structure 13:3 36:13 39:19 71:9, 12 95:10 131:25 153:24	supported 41:24 42:6 124:1	talks 76:3 119:2 129:22,24 133:20
starter 33:10,22 34:6 81:10 112:16 115:12 119:3,15 148:15 155:13	structures 115:18,20	supporting 129:20	teaches 85:3,25 88:2 149:6
starting 32:21 33:1 39:15 48:25 74:19 89:12,20 90:8 91:6 112:20 113:18 150:4 153:14	struggling 87:16	suppose 109:14	teaching 75:1 76:8,11 82:12 119:12,22 120:9 123:12
starts 23:10 84:19 89:13	style 119:19 122:7,12 156:24 157:3	surprised 123:6	technical 71:6 82:15,16,18 130:3
state 5:5,19 6:1,5 8:19 12:6 14:17 35:18 40:2,5,6 42:6 48:15,23 49:17	submitted 6:14 7:16	susceptible 107:12	
	substance 7:2,4 150:15	swap 151:8	
	substantive 6:22	switch 51:9 149:12	
		switched 37:19 128:4	

technically 159:19	things 17:3 18:4 35:18 83:15	truthful 6:11	29:10,23 30:13 31:18 39:10 43:17 46:4,16 48:6 55:8 56:21 63:20 68:9 73:5,19 74:16 75:11,12 76:1 78:7 81:5 87:6 93:5 97:25 98:2,6, 10,15 103:2,15 104:17 111:19 122:9 132:17 139:7 142:17 146:6,12 148:6 150:13 155:11 156:23 157:19 161:5
technology 9:14,19 15:5 96:1	thinking 35:4 87:17	turn 9:8 44:15 46:16 70:13 79:23 80:15 91:9 145:23	understanding 11:21 12:3 16:5 24:17 25:1,15,21 26:9,21 27:13 28:17 31:2 37:14 38:5 42:18 55:18 57:21 68:14 72:9 74:14 77:21 78:10 80:8 94:20 123:18 142:18 146:23 154:19
telling 66:8	thought 17:7 86:12	turned 38:15 45:21 101:6	understood 12:18 19:21 69:8 131:20 158:14
tells 38:7	threshold 101:18 116:18,19 146:13,17,22	turns 103:1	unit 85:10,25 86:1 88:3,8
temperature 147:10	tied 98:8,9	two-word 60:11 63:22 64:12 68:14	University 6:6
term 151:24 154:11 156:23	time 6:24,25 10:6,8 22:4 46:21 52:10,13 56:13 67:4 68:16 71:23 73:24 75:15 76:24 77:18 78:4 83:19 110:6 112:15,16, 21 113:17 115:4,13,14 122:1 123:19,23 127:9 150:15	type 74:7 75:1 76:11 95:14 103:17 109:15	upper 110:20 111:1,12 112:8 113:12,22 114:9,15 116:8
terminal 49:1 81:8 109:14	times 50:25 120:25 124:4 140:1	types 96:20	usable 159:14
terminals 59:22 60:5 62:25 63:6, 17 65:15 73:2,17 74:18 85:3	today 5:18 6:8,11,13 7:7 143:3 150:14,24	typical 78:2	usage 95:7
terms 47:3 128:7	today's 8:15,24 9:2	typo 42:24	USB 45:5,13,15,20,21 75:18, 25 76:21 77:19 80:22 82:21 83:14 85:5,11,25 87:14,15,23 88:2,3,8, 16,25 89:5,7,16,22 90:12 91:16 92:11,17 93:6,16 97:1 98:23 117:18 119:8 122:21 123:13,14,15,19,22 124:5,10,25 133:16,19, 21,25 134:1,20,25
testified 5:13 86:15	top 8:6 118:3 128:9	U	USB1 80:19 92:11
testimony 6:11 11:4 90:3,18 91:5, 11,13 93:22 133:25 150:15 151:22	trace 69:13 70:2	U.S. 7:12 67:12 125:22 127:3,11 128:4 130:8, 15	USB2
text 7:21 17:16,22 18:2,6, 10,15 19:3,4,7,9,23 20:16,21 22:8,13,22 23:13,16 24:2,3,12,16, 25 25:3,11,12,14,17,23 26:8,20,24 27:3 38:15, 17,19 41:17 57:3,5 58:23 64:20 65:2 66:6, 16 74:21 92:24,25 97:6 125:16,25 126:3,5,17, 20,22 127:5 128:7,18, 22 129:19 130:7,10,14 131:10,12,20 133:14 136:3,7 142:24 143:7,9	traditional 121:25	U3a 92:15,16 93:4	
theory 109:15	translation 126:6,12 127:11 128:10,13 130:8,23	U3b 82:20 93:10	
thin 26:18	traveling 69:5	Uh-huh 13:18 81:2	
thing 64:1 157:3 159:5	Trial 6:21	unblown 155:21	
	triggered 37:19	unclear 48:14	
	true 57:25 66:8,20 75:1 108:20 109:17 147:16	underneath 153:5	
		understand 6:7 7:8,15 8:14 11:5,10 12:7,25 14:12,18 15:9 16:5,24 18:22 20:24 21:12,19,22,25 23:22 26:1 27:2 28:16,19	

80:19 92:11	95:2,6,7,8,9,11 96:8,11, 15 97:3,13 98:2,15,17 99:4,10,17,23 100:5,13, 20 101:4,8,9,17,18,20 102:17,25 103:1,2,9,12 104:8,25 105:8 107:7 108:1,2,3,4 109:5 110:2,4 123:12 124:6, 20,25 125:3 134:7 137:7 155:8	wires 153:22 154:4,5	Z
user 16:14 17:23 45:13 47:8, 11,15,20 48:1,14 51:23 53:11,13,24 54:1,9,14 55:6,8,12,14,16,18 56:1,12,16 74:7 153:21 154:3,25 155:6,8,11,23 156:1,6 159:10 161:4	voltage-detecting 94:13 101:1	Woods 10:24 11:5 83:15,20 84:5 88:17,20 90:16,22 91:5,20 92:5,10 117:14 118:13,17	
user's 134:18	voltage-dividing 100:25	Woods' 84:11 90:3 91:11 93:19, 22 94:1 118:7	
V	voltages 54:16 56:13 77:18,23 78:6 106:25 107:2 123:24	word 33:14,18 36:8 39:5 45:25 46:1 56:6 58:15 66:4 71:23 87:17 111:24 113:1,25 128:23,24 131:9,12,19 143:2,3 151:23	
valid 76:24	volts 28:5 48:2 49:7,12,21,22 50:17 53:3,4,5,15,24,25 54:3,4,6,8,9,10 55:9,13, 16 56:2 57:19 76:6 77:19 98:11 120:3,20 123:16,20,22,23 124:14 134:5,6 136:25 137:1,2, 12 138:6 140:25 141:21,22 142:11,12,13 152:13,17,19 155:12 156:2,7 159:16 160:12	word-for-word 131:1	zoom 5:1 23:8
values 98:16 104:16 137:5		wording 54:6	
vehicle 32:21 33:1 39:16 48:25 73:2,17 74:18 107:13		words 35:5 38:11 42:21 43:3 56:4 58:17,19 59:13 60:3,4,25 66:7 70:8	
version 49:17 74:5 79:25		work 6:4 87:20 96:20 124:13	
versus 126:22		worked 9:15 154:13	
VI 15:5,11		working 25:4,9 31:22 87:5 94:22 129:4 142:22 154:13	
VIDEOCONFERENCE 5:1	W	works 69:5	
view 95:14 100:15 110:24 147:17 148:8	walk 55:2 67:18,20 127:6 146:25	write 149:8 152:10	
visually 151:11	walking 52:2 68:5,9	written 51:14 66:14	
volt 47:4,5 48:2,14,16 50:5, 22 52:8,9,11,15 57:8,25 74:22,23 77:16,17 78:13 132:19,24 134:2, 5 138:5 139:14 152:3,4 161:4	wanted 116:21 125:9 150:9 151:13 156:1	wrong 17:14 87:11	
volt's 141:23	water 46:23	wrote 143:20	
voltage 17:24 20:9 23:19 53:14 54:2,14 55:3,7,17 56:10,17 76:6 94:5,11, 14,15,16,18,21,23,24	watts 76:20 77:4,12 78:11 119:23 120:12 123:4	Y	
	ways 61:3 63:25 96:4	years 127:2 130:9 154:13	
	weather 7:3		