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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

HOWARD INDUSTRIES, INC.

Petitioner,

v.

CAPSA SOLUTIONS LLC

Patent Owner.

IPR2023-01274

Patent 7,594,668

IPR2023-01275

Patent 8,215,650

EXAMINATION OF

Pinhas Ben-Tzvi, Ph.D.

Friday, July 26, 2024

8:58 a.m. Eastern Daylight Time

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Howard Exhibit 1039 - Page 1 of 223

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4 EXAMINATION OF:

5 PINHAS BEN-TZVI, Ph.D.,

6 the witness, was called for examination by

7 counsel for the Petitioner, pursuant to

8 notice, commencing at 8:58 a.m., before

9 Dawn A. Jaques, CSR, CLR, and Notary Public in

10 and for the Commonwealth of Virginia.

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1 APPEARANCES:

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1 I-N-D-E-X

2 WITNESS:

PAGE:

3 PINHAS BEN-TZVI, Ph.D.

4 Examination by Mr. Jordan

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6

7 E-X-H-I-B-I-T-S

8 EXHIBIT:

PAGE:

9 Exhibit 1034 Figures 11 and 12 from

10 US Patent 8,215,650 (AA)

80

11

12 Exhibit 1035 Figures 11 and 12 from

13 US Patent 8,215,640

14 with yellow highlight

15 by Dr. Ben-Tzvi (BB)

83

16

17 Exhibit 1036 Figures 11 and 12 from

18 US Patent 8,215,640

19 with yellow highlight

20 by Dr. Ben-Tzvi

88

21

22

1 INDEX (Continued)

2 E-X-H-I-B-I-T-S

3 EXHIBIT: PAGE:

4 Exhibit 1037 "Materials management in
5 health care," v. 6, no. 3
6 March 1997
7 (Previously marked Enovate
8 Exhibit 1002-1) 150

9
10 Exhibit 1038 Tipping Force Analysis
11 Figure 1 and Figure 2 181
12
13

14 PREVIOUSLY MARKED EXHIBITS REFERRED TO

15 EXHIBIT NUMBER: PAGE:

16 Exhibit 1001 US Patent 8,215,650 (Arceta) 17
17 Exhibit 1006 US Patent Application
18 2002/0044059 (Reeder) 166
19 Exhibit 1010 US Patent 6,493,220 (Clark) 112
20 Exhibit 1015 US Patent 5,806,953 (Dell) 33
21 Exhibit 2012 Declaration of Pinhas
22 Ben-Tzvi 13

1 P R O C E E D I N G S

2 Whereupon,

3 PINHAS BEN-TZVI, Ph.D.,

4 was called as a witness, after having

5 been first duly sworn by the Notary

6 Public, was examined and testified as

7 follows:

8 EXAMINATION BY COUNSEL FOR THE PETITIONER

9 BY MR. JORDAN:

10 Q For the record, I'm Daniel M.

11 Jordan. I'm here for Petitioner, Howard

12 Industries, Inc., today.

13 Joined with me are my colleagues,

14 John M. Mulcahy and Michael B. Young, Sr.

15 Can you please state your name for

16 the record?

17 A Yes. Pinhas Ben-Tzvi.

18 Q Have you been deposed before?

19 A Yes.

20 Q About how many times would you say?

21 A Six times probably.

22 Q Just a few housekeeping items since

1 I understand you've done this before.

2 If you don't understand a question
3 that I've asked, please let me know and I'll
4 repeat it or rephrase it. If you do answer a
5 question, I'm going to assume that you
6 understood it. Is that fair?

7 **A Yes.**

8 **Q** Second, as you know, we're having
9 this deposition transcribed by a court
10 reporter, which means there's a written record
11 of what we say today, so just a few things to
12 keep in mind.

13 Only one of us should speak at a
14 time to make sure the record is clear, and
15 I'll let you finish an answer before I ask my
16 next question. Please let me finish a
17 question before you answer it.

18 Is that all right?

19 **A Yes.**

20 **Q** And everything you do today has to
21 be spoken. No verbal communications like head
22 shakes or nod. Understood?

1 **A Yes.**

2 **Q And if you do need a break today,**
3 just let me know and we can take a break. If
4 there's a question pending, please answer it
5 before you do, and we'll try to take a break
6 every hour, all right?

7 **A Yes.**

8 **Q Do you understand you are under oath**
9 today?

10 **A Yes.**

11 **Q Do you have any documents with you?**

12 **A No.**

13 **Q So we're here today to discuss your**
14 testimony for two IPR proceedings, and I'm
15 going to refer to US patent number 7,594,668
16 as the '668 Patent. Is that okay?

17 **A Yes.**

18 **Q And I'm going to refer to US patent**
19 number 8,215,650 as the '650 Patent.

20 Is that okay?

21 **A Yes.**

22 **Q And when I mention the**

1 '668 Petition, I mean the Petition filed by
2 Howard Industries challenging the '668 Patent,
3 all right?

4 **A Okay.**

5 Q And when I say the '650 Petition, I
6 refer to the Petition filed by Howard
7 Industries challenging the '650 Patent, okay?

8 **A Yes.**

9 Q And when I say "the Petitions," I
10 refer to the '668 Petition and the
11 '650 Petition together, okay?

12 **A Yes.**

13 Q How long did you prepare for your
14 deposition?

15 **A Just for the deposition itself?**

16 Q Yes. How long did you prepare for
17 this deposition?

18 **A So I guess my question is from the**
19 **beginning of the case when it was -- when I**
20 **joined this case, or just for the deposition?**

21 Q How long did you prepare from the
22 time you got the notice of your deposition

1 until today?

2 **A Okay. I would say about two to**
3 **three weeks.**

4 **Q How many hours in that time span?**

5 **A Just for the deposition, that would**
6 **be an approximation, I would say about at**
7 **least 50 hours.**

8 **Q And about how much time in total on**
9 this case do you think you have spent
10 preparing?

11 **A I would say at least 150 hours.**

12 **Q How did you prepare for today's**
13 deposition?

14 **A I reviewed the IPR Petitions, the**
15 **responses to the Petitions, all the exhibits**
16 **listed in the Petitions and the responses, and**
17 **my declarations in support of the preliminary**
18 **and the latest response to the IPR Petitions.**

19 **Q Did you review anything else?**

20 **A I don't think so except for search**
21 **on the internet and books and things like**
22 **that.**

1 Q Did you have any meetings to prepare
2 for your deposition?

3 A **Yes.**

4 Q Approximately how many?

5 A **Two.**

6 Q About how long were they?

7 A **One was two hours, and one was an**
8 **hour and a half.**

9 Q You mentioned books that you had
10 reviewed. What books did you review?

11 A **Oh, just my textbooks, engineering**
12 **textbooks.**

13 Q Are those books listed on your list
14 of Materials Considered?

15 A **No.**

16 Q Is there anything else besides
17 materials, textbooks, that you reviewed that's
18 not listed on your list of Materials
19 Considered?

20 A **No.**

21 Q Aside from counsel, did you speak
22 with anyone else to prepare for today's

1 deposition?

2 **A No.**

3 Q You have a set of binders in front
4 of you. If you could please pick up the
5 binder that says Exhibits 1 to 12 and turn to
6 Tab 1 of that binder.

7 Jim, there's a set for you and a
8 separate set for the witness.

9 MR. KWAK: Thank you.

10 THE WITNESS: Exhibits 1, 2, got it.

11 BY MR. JORDAN:

12 Q Please turn to Tab 1.

13 **A Exhibit 1?**

14 Q It's labeled Tab 1. The exhibit is
15 IPR2023-01274, Exhibit No. 2012.

16 Do you recognize this document?

17 **A Yes.**

18 Q What is it?

19 **A That's the declaration of Pinhas**
20 **Ben-Tzvi in support of Patent Owner's Response**
21 **to the '668 and '650 IPR Petitions.**

22 Q Okay if I refer to this document as

1 the declaration?

2 A Okay.

3 Q Did you prepare this declaration?

4 A Yes, I did.

5 Q Did anyone assist you in preparing
6 this declaration?

7 A So the way it worked is that I had a
8 few discussions with the attorney, and I
9 expressed to him my positions and opinions on
10 the case after reading the IPR Petitions, and
11 I made a draft.

12 I sent it to him, and he added some
13 legal stuff that I had to consider, like
14 boilerplate paragraphs, and then I just
15 reviewed them, made changes. And basically
16 anything that I asked him or directed him to
17 add, that's how it was created.

18 Q About how long did it take to
19 prepare the declaration?

20 A I would say 50 hours, maybe 40. I
21 can't exactly pinpoint, but roughly.

22 Q Does your declaration reflect your

1 full opinion on why you allege the '668 Patent
2 is valid over the prior art combinations
3 presented in the '668 Petition?

4 **A Yes.**

5 Q And does your declaration reflect
6 your full opinion on why you allege the
7 '650 Patent is valid over the prior art
8 combinations presented in the '650 Petition?

9 **A Yes.**

10 Q I'd like to ask you about
11 paragraph 25 of your declaration.

12 In the second sentence you write,
13 "Prior to the '650 --

14 **A Which line? I'm sorry.**

15 Q In paragraph 25 of your declaration,
16 the second sentence, you write, "Prior to
17 the '650 and '668 Patents, no one in the
18 industry had invented a mobile medical cart
19 with height adjustable compartments and work
20 surface(s) as part of a unified, compact work
21 platform as recited in the claims at-issue or
22 knew how to realize the same."

1 What did you mean by "compact"?

2 **A "Compact" means that the work**
3 **surface in at least one compartment are -- at**
4 **least one compartment disposed in the work**
5 **surface is a unitary system, and it basically**
6 **makes the system much more ergonomic and easy**
7 **to use so nurses don't have to bend down to**
8 **reach a lower portion of the cart, so they can**
9 **easily take items out and put on the surface,**
10 **back and forth.**

11 Q You mentioned unitary system.

12 What do you mean by that?

13 **A "Unitary" means that there is a work**
14 **surface, and there is at least one**
15 **compartment, like a compartment, an enclosed**
16 **space that contains an item, and they are**
17 **together. So the compartment is disposed**
18 **completely in the work surface.**

19 Q Do the work surface and the
20 compartments, must they touch to be unitary?

21 **A That's one example, yeah.**

22 Q Can they not touch and be unitary?

1 **A** Based on the -- if I remember
2 correctly, the '650 Patent, column 4, there is
3 a statement that clearly defines what unitary
4 means, so I would like to refer to that patent
5 and help you understand what unitary means.

6 **Q** Okay, turn to binder Tab 3. This is
7 Exhibit 1001 from IPR2023-01275. Take a look
8 and tell me if you recognize this document.

9 **A** I do.

10 **Q** What is it?

11 **A** That's the '650 Patent.

12 **Q** So please direct me to the
13 definition of "unitary" in the '650 Patent.

14 **A** I'm looking for the word. If it was
15 on the computer, it would be so much easier.

16 Can I use my magnifying glass?

17 **Q** Yes.

18 **A** It's the age. So small.

19 I can't find it. Maybe it was a
20 different column.

21 **Q** It's fair to say the claims of the
22 '668 Patent and '650 Patent do not recite that

1 the work platform be compact, right?

2 **A So are you asking if the claim**
3 **itself uses the word "compact"?**

4 Q It's fair to say the claims of the
5 '668 Patent and '650 Patent do not use the
6 word "compact," correct?

7 **A From what I remember, I didn't see**
8 **the word "compact."**

9 Q And fair to say the claims don't
10 require a work platform of any particular
11 size, right?

12 **A You mean if there are any dimensions**
13 **there?**

14 Q Any size requirement of any kind for
15 the work platform, fair to say the claims do
16 not require it?

17 **A The claims never go into that level**
18 **of detail. Claims have to be broad. You**
19 **never see dimensions in a claim. That would**
20 **be too limiting.**

21 Q Is there a restriction on the size
22 of the work platform in the claims?

1 **A Could be any size.**

2 **Q Can the compartments be any size?**

3 **A I mean, you're asking me a question**
4 **that is so vague. I mean, what do you mean by**
5 **"any size"?**

6 **When engineers design things, they**
7 **have to take into account various**
8 **considerations, like the location of the**
9 **center of gravity, the dimensions of the base,**
10 **the height, actuator strength, power outputs,**
11 **like lots of factors.**

12 **You're asking me a question that is**
13 **so generic and vague that I cannot, as an**
14 **engineer, answer it.**

15 **Q Let me ask a different question.**

16 **Do the claims require a compartment**
17 **of a specific size?**

18 **A Size is not an issue here. I mean,**
19 **they have to be large enough to accommodate**
20 **items.**

21 **Q I want to go back to paragraph 25 of**
22 **your declaration, the last sentence of the**

1 paragraph.

2 **A One second, I'm not there yet. 25,**
3 **last sentence.**

4 Q Are you there?

5 **A Yeah.**

6 Q So this sentence states, starting in
7 the middle, "nobody in the industry, prior to
8 the '668 and '650 Patents --

9 **A Did you say 25 or 35?**

10 Q Looking at paragraph 25 of your
11 declaration.

12 **A Last sentence?**

13 Q Yes, it starts with the word
14 "because." My mistake, I'm not on the last
15 sentence. Let me clarify.

16 **A Okay.**

17 Q The second to last sentence in
18 paragraph 25. Let me know when you're there.

19 **A Ah, now that makes sense, okay.**

20 Q It states, "Because these carts have
21 to be mobile and light enough for nurses to
22 easily move them around a hospital, nobody in

1 the industry, prior to the '668 and
2 '650 Patents, knew how to integrate relatively
3 heavy compartments, and stored items within
4 them, into a height adjustable work platform
5 without sacrificing mobility, stability and
6 weight constraints."

7 Do you see that?

8 **A Yes.**

9 **Q Can you list for me any medical cart**
10 **manufacturers that sold carts in 2003?**

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

12 **Q Have you reviewed product catalogs**
13 **of any medical cart manufacturer from 2003?**

14 **A I saw some images of carts in the**
15 **Complaint and some other documents. I can't**
16 **really remember which ones, but I know about**
17 **them, 38 and 48 cup size, and I'm not sure**
18 **exactly when they were manufactured. Probably**
19 **around that time if the patent was issued in**
20 **about 2003.**

21 **But I can tell you that at that time**
22 **frame of 2003 and 2004, the conventional**

1 wisdom was that these types of, you know,
2 computer workstations were mounted on top of
3 the height adjustment mechanism to keep them
4 as light and unencumbered as possible, and any
5 compartments or drawers were placed at the
6 bottom in a non-adjustable manner, like Reeder
7 did, and your expert's patent '134 from 1997.
8 Kemnitzer did the same thing.

9 They didn't know. He didn't know.
10 No one knew how to create height-adjustable
11 compartments that fully project in front of
12 the height adjustment mechanism at that time.

13 Q How do you know nobody knew how to
14 make a height-adjustable platform with
15 compartments in the front at that time?

16 MR. KWAK: Objection, vague.

17 THE WITNESS: I just told you. I
18 just told you. Would you like me to
19 repeat that?

20 BY MR. JORDAN:

21 Q On what basis do you state nobody in
22 the industry knew how to integrate

1 compartments into a height-adjustable work
2 platform?

3 A There are so many reasons. I didn't
4 see anyone doing it in any patents. Any of
5 your prior art that were cited by the
6 Petitioner don't even closely come to
7 suggesting that anyone was able to do that.

8 Only the Patent Owner's patents,
9 the '650 and '668, are the first ones to come
10 up with these new and non-obvious solution of
11 height-adjustable compartments, and right
12 after that, everyone started copying.

13 For example, if you look at the
14 Miller patent from 2016, that's what they did.
15 They put height-adjustable compartments right
16 in front of the height adjustable mechanism,
17 and others as well.

18 And as I said, Kemnitzer's patent,
19 the Reeder patent, they had no clue how to do
20 these things before, and that's reflected in
21 these patents.

22 Q Outside of reviewing patents in this

1 proceeding, do you have any reason to know
2 that nobody in the industry knew how to
3 integrate compartments into a
4 height-adjustable work platform?

5 **A Yes.**

6 **Q** What is that reason?

7 **A Me.**

8 **Q** Can you cite any literature
9 supporting your opinion?

10 **A When I graduated in 2000 with my**
11 **bachelor's degree, I started working for**
12 **GE Medical Systems, and I visited many**
13 **hospitals during the installation of PT, MRI,**
14 **CT systems, and I've never seen any carts like**
15 **this in hospitals.**

16 **Q** Back to paragraph 25 of your
17 declaration, you describe the compartments as
18 "relatively heavy compartments."

19 What do you mean by "relatively
20 heavy"?

21 **A Compartments, when you look at the**
22 **figures of the '668 and '650 Patents,**

1 **compartments that are large enough to**
2 **accommodate various sizes of objects and**
3 **weight.**

4 Q The compartments are relatively
5 heavy compared to what?

6 A Well, the idea is that the
7 compartments can accommodate relatively heavy
8 objects.

9 Q So is it fair to say that
10 compartments can be light, and they have to
11 hold relatively heavy objects?

12 MR. KWAK: Objection, vague.

13 THE WITNESS: Well, I mean, it
14 depends on the context. In this
15 particular case for the '650 and
16 '668 Patents, based on the description
17 and the figures, they're relatively heavy
18 compartments.

19 They could be heavier than,
20 for example, the water frame tray you see
21 in Reeder. That cannot hold anything,
22 right? So it needs to be heavy enough

1 and robust to be able to carry objects in
2 it.

3 BY MR. JORDAN:

4 Q What are the compartments in
5 the '668 Patent made of?

6 A **Could be made of I guess anything**
7 **you want.**

8 Q Could they be made of plastic?

9 A **They could.**

10 Q Is plastic relatively heavy?

11 A **It depends.**

12 Q Depends on what?

13 A **What sort of polymer you use. Is it**
14 **thermoplastic? Is it thermoset? I mean,**
15 **there's different types of plastics.**

16 Q I'm trying to understand what you
17 meant in your sentence here when you said no
18 one knew how to integrate relatively heavy
19 compartments into a height-adjustable work
20 platform.

21 What is the compartment being
22 compared to in that sentence?

1 **A A compartment is an enclosed space**
2 **for containing an item or items. That's what**
3 **"compartment" means.**

4 **Q So what makes it relatively heavy?**

5 **A What makes it relatively heavy? The**
6 **size. You know, the weight of anything is**
7 **measured by the volume and the density,**
8 **basically.**

9 **Q The compartment could be relatively**
10 **light, right?**

11 **MR. KWAK: Objection, vague.**

12 **THE WITNESS: What do you mean,**
13 **"relatively light"? With respect to**
14 **what?**

15 **BY MR. JORDAN:**

16 **Q I think this is my confusion. I'm**
17 **not understanding what relatively heavy you're**
18 **comparing to. I'm trying to ask you to**
19 **explain it to me.**

20 **So when you say "relatively heavy**
21 **compartments," that's my question, what is the**
22 **compartment relatively heavy compared to?**

1 A So let me help you with that
2 confusion of yours.

3 Well, as an expert sitting here
4 today, I would say that an engineer has to
5 account for various things. You know, the
6 size of the base, the height of the cart, the
7 location of the center of gravity. There are
8 lots of factors to consider.

9 So I can't really give you a fair
10 answer about the weight of something without
11 taking into account all these design factors.

12 Q So how do you know the compartments
13 in the '668 and '650 Patents are heavy?

14 MR. KWAK: Objection, asked and
15 answered.

16 THE WITNESS: You would like me to
17 repeat the answer?

18 BY MR. JORDAN:

19 Q I'd like you to tell me how you know
20 the compartments in the '668 and '650 Patent
21 are heavy.

22 MR. KWAK: Objection, asked and

1 answered.

2 THE WITNESS: It says "relatively
3 heavy," so it's relative.

4 BY MR. JORDAN:

5 Q I want to direct you to paragraph 26
6 of your declaration.

7 A Mm-hmm, I'm there.

8 Q You write, "The inventors of the
9 '650 Patent were the first to successfully
10 incorporate compartment(s) into a height
11 adjustable work platform while maintaining a
12 stable configuration with a lower COG,
13 allowing the compartments to be adjustable in
14 height so nurses and other healthcare
15 providers do not have to constantly bend over
16 to obtain items stored in the compartment."

17 What do you mean by "lower COG"?

18 A To maintain stability of an object,
19 you want to ensure that the center of
20 gravity -- "COG" first means center of
21 gravity, and you would like to endeavor to
22 maintain the COG as low as possible. That

1 **increases the stability of the object from**
2 **tipping over.**

3 Q So here when you say "lower COG,"
4 it's lower compared to what?

5 A **To the ground.**

6 Q What are you comparing the COG here
7 that's lower than another COG?

8 MR. KWAK: Objection, vague.

9 THE WITNESS: I didn't understand
10 your question.

11 BY MR. JORDAN:

12 Q "Lower" is a relative term. You're
13 comparing something to another. "Lower COG"
14 in this sentence, what do you mean? Lower
15 than what?

16 MR. KWAK: Objection, argumentative.

17 THE WITNESS: So when you look at an
18 object, an object cannot have more than
19 one COG. It has only one center of
20 gravity, so there is nothing -- no other
21 center of gravity to compare to, unless
22 you're comparing the location of the

1 center of gravity of two separate
2 objects.

3 BY MR. JORDAN:

4 Q Do the claims require a specific
5 gravity at any particular point in the cart?

6 A Can you repeat the question?

7 Q Do the claims require the specific
8 gravity to be located at any particular point
9 in the cart?

10 A I think there is some technical
11 flaws in your question.

12 Q Is your answer complete?

13 A I'm happy to teach you and explain
14 to you what it means if you would like.

15 Q I'm asking a question about the
16 claims. Do the claims require the specific
17 gravity of a cart to be at any particular
18 point?

19 A First of all, gravity is always
20 specific. It's constant. It's 9.81 m/s². It
21 depends on the altitude, where you're at, but
22 if you're sitting on the surface of the earth,

1 **the gravity is 9.81 m/s². That's g, simple.**

2 Q Let me ask a different question.

3 A **It's specific.**

4 Q Do the claims require a specific
5 center of gravity at any particular point in
6 the claim?

7 A **So the center of gravity location**
8 **depends on -- it's basically the point where**
9 **the mass around that point is equally**
10 **distributed.**

11 **So if you were to be strong enough**
12 **and put your finger at that location in the**
13 **center of gravity and lift it, it would remain**
14 **stable. So that's the meaning of center of**
15 **gravity.**

16 **And as a designer of such carts, you**
17 **would like to keep it as low as possible to**
18 **the ground.**

19 Q Fair to say the claims don't have a
20 requirement that the center of gravity is in
21 any particular place, right?

22 A **You mean the '650 and '668 patent**

1 **claims?**

2 Q Yes.

3 A **They do.**

4 Q Okay, where do they require that?

5 A **What tab was the '650 Patent? Can**
6 **you remind me?**

7 Q Tab 3.

8 A **So when you look at the claims -- so**
9 **just the fact that it says that the**
10 **compartments are height adjustable already**
11 **demonstrates the fact that the COG is already**
12 **low as possible to the ground, and that's**
13 **what's unique about this patent is that -- and**
14 **that's what makes it non-obvious compared to**
15 **the prior art that was cited there.**

16 None of those provide that ability
17 **of that solution of a height-adjustable**
18 **compartment combined with a work surface,**
19 **disposed in the work surface, and that's what**
20 **lowers the COG.**

21 Q Let's take a look at Tab 4 of the
22 binder, please. Tab 4 is marked Exhibit 1015

1 from IPR2023-01274.

2 Have you reviewed this document
3 previously?

4 A What's the name of -- I go by names.
5 What would you call them one?

6 Q The patent is Dell. I'd like to
7 refer to this as Dell.

8 A Oh, the Dell patent.

9 Q Do you recognize Dell?

10 A Honestly, I can't remember. Is it
11 listed? Where is it listed?

12 Q On the bottom right, it's marked
13 Exhibit 1015, Howard Exhibit 1015. This is
14 from the IPR2023-01274.

15 A I might have, but I can take a
16 glance and answer your question.

17 Q Please take a moment to look through
18 the figures.

19 A Luckily, it's a short patent.

20 Q Would you agree that Dell teaches a
21 height-adjustable mobile workstation?

22 A Can you give me another minute? I

1 **didn't finish.**

2 **Okay, I just have to make a**
3 **disclaimer that any questions I answer with**
4 **respect to this patent, I reserve the right to**
5 **modify my answers after I get a chance to**
6 **fully inspect and read it line by line.**
7 **Thank you.**

8 Q You reviewed all of the documents
9 cited in the IPR Petitions, right?

10 A **Yes.**

11 Q This document was cited in the IPR
12 Petitions?

13 A **Yes.**

14 Q So you've reviewed it before?

15 A **Too long ago.**

16 Q Do you agree that Dell teaches a
17 height-adjustable mobile workstation?

18 A **When it comes to workstation versus**
19 **a work platform, a workstation, and I'm glad**
20 **to use the workstation, it does say**
21 **"workstation" here in the title of the patent,**
22 **is basically -- yeah, sure, it's height**

1 **adjustable, and it contains a work surface and**
2 **maybe a cavity for a keyboard, for anything**
3 **else, which is different than work platform**
4 **that is a work surface and at least one**
5 **compartment disposed in it.**

6 Q It's fair to say Dell is height
7 adjustable, right?

8 A **Yes.**

9 Q Take a look at Figure 1.
10 Do you see bins 34 and 36?

11 A **Yes, I see 36, but is 34 not a**
12 **speaker?**

13 Q If you take a look at column 2,
14 lines 47 to 48.

15 A **Okay.**

16 Q That says "Openings may also include
17 spaces for baskets for bins, 34, 36."

18 Do you see that?

19 A **Yeah.**

20 Q Back to Figure 1.
21 You see bin 34, right?

22 A **Yes.**

1 Q It's fair to say that Dell's bins
2 are incorporated into height-adjustable work
3 platform?

4 A No.

5 Q Why not?

6 A **This is nothing even remotely close**
7 **to what's described in the '650 and**
8 **'668 Patent.**

9 Q That wasn't my question.

10 My question was, are Dell's bins
11 incorporated into its height-adjustable work
12 platform?

13 MR. KWAK: Objection, vague.

14 THE WITNESS: Yeah, I agree that
15 it's a vague question.

16 They're open, they're not
17 compartments, let's start with that.

18 BY MR. JORDAN:

19 Q I didn't ask if it was a
20 compartment. I asked you if Dell's bin 34 is
21 incorporated into Dell's height-adjustable
22 work platform?

1 MR. KWAK: Objection, vague.

2 THE WITNESS: I don't see any
3 practical use of that. It doesn't look
4 like a bin to me.

5 BY MR. JORDAN:

6 Q The column -- the patent says it's a
7 bin, right?

8 A It can say whatever it wants.

9 Probably a mistake. That's not a bin. 34
10 doesn't look like a bin to me or anything.
11 What do you do with that? Is that a tray for
12 cutting things? What is those holes?

13 Q Back to column 2, line 51. Please
14 go back there.

15 A Which line?

16 Q Column 2, line 51. It says "Smaller
17 basket 34 can be used to hold pencils, pens,
18 or other small items."

19 A Oh, so it's a pencil tray, okay.

20 Q Back to Figure 1. Surely we can
21 agree bin 34 is incorporated in a
22 height-adjustable work platform, yes?

1 A A pencil tray is there on the
2 height-adjustable surface.

3 Q But the patent uses the language
4 "bin," right?

5 A I mean, it's still not a
6 compartment.

7 Q But Dell's bin is height adjustable,
8 right?

9 A I mean, listen, when you look at
10 '650 and '668 Patents, they clearly
11 distinguish between open things like bins and
12 compartments.

13 So when I look at this here, you're
14 telling me to compare a patent that like --
15 and it looks like this is in the same time
16 frame, 1998, close to the 1997 patent of your
17 own expert, no one had a clue how to do what
18 was done in the '650 and '668 Patents, and
19 you're asking me to stretch myself into
20 agreeing that the pencil tray is anything
21 remotely close to what's in the Capsa patent.

22 Q I haven't asked you any questions

1 about the Capsa patent.

2 A I'm telling you what I think as an
3 expert in the field working in hospitals and
4 in the medical area for many years, okay?

5 I cannot see what nurses can store
6 there, or do anything with, or how this can
7 even be put in an elevator. It looks like a
8 stool, a chair modified, you know, to carry a
9 laptop and pencils, nothing else. That's not
10 a medical cart for any purpose.

11 Q Dr. Ben-Tzvi, my question is simple.

12 A Let me finish.

13 It's not ergonomic, it's not simple.
14 You know, it's an unfair comparison, and it's
15 something that cannot be used, or repurposed
16 even, closely or remotely to what the '650 and
17 '668 Patents do.

18 Q I'm not talking about the '650 or
19 the '668 Patent. The question is simply is
20 Dell's bin 34 height adjustable?

21 A It's height adjustable just because
22 it's there. I mean, it's a tray for holding

1 pencils.

2 So I have at work a
3 height-adjustable table, and I put a pen and a
4 pencil next to it, so you're telling me that I
5 have a compartment that is height adjustable?

6 It's like I have no words to
7 describe how even this even comes close to
8 anything that has been offered in the '650 and
9 '668 Patents.

10 Q Dell's bin 34 moves up and down as
11 the height of the work platform moves up and
12 down, right?

13 A There are many workstations that
14 move up and down that are height adjustable.

15 Q I'm asking about Dell in Figure 1.

16 A Okay. What about Dell?

17 Q Dell's bin 34 moves up and down with
18 the height of Dell's work platform, right?

19 A Yes.

20 Q If I put a plastic hinged cover over
21 Dell's bin 34, is it a compartment?

22 MR. KWAK: Objection, vague.

1 THE WITNESS: There is lots of ifs
2 and buts. It doesn't, so it's a
3 hypothetical. I cannot rely on a
4 hypothetical in this case.

5 BY MR. JORDAN:

6 Q Why can't you answer a hypothetical?

7 A **Because what you're trying to do is**
8 **not mentioned in this patent, to put a cover.**

9 Q I'm asking you as an expert, if you
10 attached a hinged plastic cover to the top of
11 Dell's bin, is it a compartment?

12 MR. KWAK: Objection, vague.

13 THE WITNESS: No.

14 BY MR. JORDAN:

15 Q Why not?

16 A **Why do I need to cover pencils and**
17 **pens?**

18 Q I didn't ask why. My question was
19 if you attached a compartment -- strike that.
20 Let me ask a different question.

21 Are you ready?

22 A **Always.**

1 Q If I attached a hinged plastic cover
2 to the top of Dell's bin 34 and closed it, is
3 it a compartment?

4 A No.

5 Q Why not?

6 A Because I don't agree with your
7 comparison. It's not a fair comparison.

8 Q What are you comparing Dell's bin
9 to?

10 A To ethical morals of comparisons.
11 As an engineer, I cannot sit here
12 today as an expert and agree with such a far
13 statement that the pencil holder, if you were
14 to, in hindsight, put a cover on it, that it's
15 anything remotely close to the ingenious ideas
16 presented in the '650 and '668 Patents.

17 Q So your testimony is you disagree
18 that a cover on bin 34 is a compartment?

19 A Yes.

20 Q Take a look at Figure 1. There's a
21 callout 108 pointing to a space in Dell's
22 compartment 100. Do you see the space?

1 **A Yes.**

2 **Q Would it be possible for a person of**
3 **ordinary skill in the art to put a drawer in**
4 **that space?**

5 **MR. KWAK: Objection, vague.**

6 **THE WITNESS: No.**

7 **BY MR. JORDAN:**

8 **Q Why not?**

9 **A Because the conventional wisdom at**
10 **the time was to keep the workstation that is**
11 **mounted on top of a height adjustment**
12 **mechanism as light and unencumbered as**
13 **possible, and any drawers or bins, or whatever**
14 **you want to call them, compartments, are**
15 **usually put in a stationary manner at the**
16 **base, like Kemnitzer did in the '134 Patent**
17 **and Reeder did in the embodiment described in**
18 **Figure 32 of the Reeder patent.**

19 **They're not height adjustable**
20 **because there's concerns of the location of**
21 **the COG that leads to instability in those**
22 **carts easily tipping over.**

1 **So that wisdom did not exist at that**
2 **time, and the person who patented that didn't**
3 **have that wisdom. That's why he kept it open,**
4 **and that's it.**

5 Q **So I didn't ask about any**
6 **conventional wisdom at the time. My question**
7 **is different. Are you ready?**

8 A **Yes.**

9 Q **Could a person of ordinary skill in**
10 **the art, is it physically possible to put a**
11 **drawer in that space 108 in Clark?**

12 A **No.**

13 Q **Why is it physically impossible for**
14 **a drawer to be put in that space?**

15 A **Gosh, there is a hundred reasons I**
16 **can list. I don't see any drawer sliders, any**
17 **premounting holes to be able to install a**
18 **drawer. You know, we don't have any alleged**
19 **weight of the drawer, and if putting a drawer**
20 **that is too heavy or containing items that are**
21 **too heavy would make the whole thing unstable,**
22 **that's why they didn't know how to put a**

1 **drawer there. They wouldn't want to put a**
2 **drawer because it would mess up the center of**
3 **gravity and the whole stability of the cart.**

4 Q Could you as an expert figure out
5 how to put a drawer in space 108 in Clark?

6 A **At that time frame?**

7 MR. KWAK: Objection, vague.

8 THE WITNESS: At that time frame,
9 no.

10 BY MR. JORDAN:

11 Q Is there a difference between a
12 portion of the work platform that projects
13 from the height adjustment mechanism and a
14 portion of the work platform that projects
15 relevant to the height adjustment mechanism?

16 A **Can you repeat that again? You're**
17 **not referring to any specific document here,**
18 **right?**

19 Q Go to paragraph 28 of your
20 declaration.

21 A **Okay, I'm there.**

22 Q In the first sentence you have an

1 open quotation mark that says "disposed in the
2 portion of the work platform projecting
3 from --

4 **A Sorry, which? Oh, yeah, yeah. The**
5 **middle of paragraph 28?**

6 Q That's right.

7 **A Yeah, I see it, okay.**

8 Q So beginning with the quotation
9 mark, "disposed in the portion of the work
10 platform projecting from [or relative to] the
11 height adjustment mechanism in the forward
12 direction."

13 **A Yes.**

14 Q My question is, is there a
15 difference between projecting from and
16 projecting relative to?

17 **A Well, so there's an alternative. So**
18 **a work platform projecting from, or a work**
19 **platform disposed in the portion of the work**
20 **platform relative to. That's what it means.**

21 Q Do you understand those terms to be
22 different?

1 A Which terms?

2 Q "Projecting from" and "projecting
3 relative to." Is there a difference between
4 those terms?

5 A I think you're making a mistake
6 here. My understanding is that, the way I've
7 written it, is work platform, pause,
8 projecting from the height adjustment, or
9 platform relative to the height adjustment.

10 Oh, I see what you're saying,
11 projecting from or projecting relative to. I
12 mean, it's the same thing, that's what I
13 provided that alternative.

14 The idea is that "forward" means in
15 front, right? And the reason why "forward"
16 means in front, so if you look at the
17 prosecution history of the '650 Patent, from
18 what I remember, there was an argument made by
19 the patentee that they disclaim all types of
20 workstations that are mounted on top of the
21 height adjustment mechanism. Therefore,
22 "forward" doesn't mean on top, it means in

1 **front.**

2 Q Can you please turn to paragraph 35
3 of your declaration?

4 A **Excuse me one second.**

5 **Yes, I'm there.**

6 Q At the end of the paragraph, you
7 show modified figures from the '650 Patent.

8 A **I don't see any. Are you on
9 page 15? Oh, the next page, okay.**

10 Q So the paragraph extends to page 16,
11 and the modified figures follow it.

12 Do you see that?

13 A **Yes.**

14 Q Can you explain your modification to
15 the '650 Patent here?

16 A **So let's start with the figure on
17 the right. So that figure basically shows
18 compartments that are disposed in front, or
19 forward of the front projecting portion that
20 leads the cart, so basically what creates the
21 cart to the lower COG, which I explained a few
22 minutes earlier to you today.**

1 So, obviously, there is also the
2 definition of "forward" and "rearward." So if
3 a person or a nurse that uses that cart, they
4 would be facing rearward.

5 So that basically this solution
6 provided in Figure 12, the unmodified one,
7 gives the nurse the ability to get full access
8 to these compartments, so that's why they're
9 also obviously fully disposed in in the front
10 or in front of the height adjustment
11 mechanism, whereas the hypothetical here shows
12 compartments in orange that are mounted on top
13 of the height adjustment mechanism, so they're
14 not forward or in front like the Capsa patents
15 do.

16 Basically, top mounting, or making a
17 top-mounted or top-heavy workstation, which
18 the patentee disclaimed during the prosecution
19 of the '650 Patent that, you know, top-mounted
20 workstations are not part of what the solution
21 that is provided by the patents '650 and '668.

22 Q What do you mean by "top-mounted"?

1 **A Mounted on top.**

2 **Q What does it mean to mount the**
3 **compartments on top of the height adjustment**
4 **mechanism?**

5 **A So as the figure shows, you have the**
6 **yellow part, which is the height adjustment**
7 **mechanism, and the orange part are the**
8 **compartments sitting directly on top, like**
9 **similar to all the patents you're citing, you**
10 **know, including Dell, where the workstation is**
11 **mounted on top.**

12 **Again, the reason this was done is**
13 **that was the conventional wisdom at that time,**
14 **that those top-mounted workstations had to be**
15 **maintained as light and unencumbered as**
16 **possible to lower the center of gravity.**

17 **They, of course, came up with other**
18 **solutions because they didn't have the wisdom**
19 **by putting heavy weights at the bottom, and**
20 **other solutions to lower the COG as much as**
21 **possible. No one knew at that time how to**
22 **create height-adjustable compartments that are**

1 **fully in front of the height adjustment**
2 **mechanism.**

3 Q Do the compartments have to rest on
4 the height adjustment mechanism to be
5 top mounted?

6 A **That would be one example.**

7 Q Are there any other ways to top
8 mount compartments to a height adjustment
9 mechanism?

10 A **I don't think we have the time to**
11 **sketch designs and things like that, but**
12 **top mounted basically means sitting on top,**
13 **and that's what I saw in, for example, the**
14 **Clark patent. The workstation is mounted**
15 **completely on top of the height adjustment**
16 **mechanism.**

17 Q This figure on the left in your
18 declaration, why would a person of ordinary
19 skill modify the '668 Patent figure in the way
20 that you've shown?

21 A **Well, a person of ordinary skill in**
22 **the art at the time frame of 2003, 2004,**

1 wouldn't know how to do it otherwise. That
2 was the conventional wisdom. They didn't know
3 how to integrate height-adjustable
4 compartments. And by putting it in front,
5 that lowers the COG, right?

6 So as I said, the conventional
7 wisdom was to keep the workstation as light as
8 possible, and any drawers or compartments
9 would typically be placed at the bottom like
10 Kemnitzer did, your expert, in his
11 '134 Patent. I think it was from 1997.

12 And the Reeder as well, the
13 compartments are completely stationary at the
14 bottom, and they added some extendable element
15 there to put a keyboard or laptop on top. So
16 no one knew how to do that. It was just the
17 conventional wisdom.

18 It's the same way we didn't have,
19 you know, like rockets that Elon Musk created
20 that self land on a platform in the middle of
21 sea. There was no wisdom. Wisdom is
22 something that is, you know, based on time

1 **evolution.**

2 Q Wouldn't a person of ordinary skill
3 want to reduce the height of the compartments
4 so that you could reach them in the figure on
5 the left?

6 MR. KWAK: Objection, vague.

7 THE WITNESS: Can you repeat that
8 again? Sorry.

9 BY MR. JORDAN:

10 Q If a person of ordinary skill was
11 going to put the compartments on top of the
12 height adjustment mechanism, wouldn't they
13 want the user to be able to reach the top of
14 the work platform?

15 MR. KWAK: Objection, vague.

16 THE WITNESS: Well, we can start
17 with the fact that no one did that.
18 That's a hypothetical, right? Remember,
19 this is a hypothetical showing that it's
20 not physical; that's why no one was able
21 to do that at that time.

22

1 BY MR. JORDAN:

2 Q We're looking at your hypothetical
3 here on the left, and my question is, would
4 someone of ordinary skill think to lower the
5 height of the height adjustment mechanism so
6 that somebody could reach the top of the work
7 platform?

8 A Well, I think there are some
9 technical errors in your question. Let me
10 help you there.

11 So basically it is a height
12 adjustment mechanism, right, and probably
13 there is an arc to it, or you push, or a lever
14 that lowers up and down, but we don't have
15 that technical detail there, you know, how
16 long the height adjustment can extend or how
17 low can it go, right?

18 The idea is the stability, right,
19 and the location of the COG, and no one knew
20 how to lower the COG, the center of gravity,
21 at that time frame to arrive at this elegant,
22 ergonomic, easy-access solution without

1 **sacrificing mobility, ergonomic design,**
2 **stability, and other design factors that are**
3 **critical for the design of such medical carts**
4 **with height-adjustable compartments.**

5 Q So as I understand you, conventional
6 wisdom at the time was to do what you've drawn
7 on the left; is that right?

8 MR. KWAK: Objection.

9 THE WITNESS: No. Conventional
10 wisdom was workstations.

11 Workstations are different than
12 compartments. Workstations consist of a
13 work surface to put a laptop or a
14 computer screen and a cavity for
15 keyboard, and that's why I'm showing you
16 with this hypothetical that no one would
17 have done such a thing, because it would
18 be foolish, because that whole thing
19 would be too top-heavy and would be
20 easily unstabilized and topple over.

21 BY MR. JORDAN:

22 Q Would a PHOSITA think to lower it so

1 that you could reach it?

2 **A Lower it, you mean by pressing on**
3 **the button, and then the height adjustment**
4 **mechanism going down?**

5 **Q No.**

6 **A Because if it's already there,**
7 **probably before he was able to lower it, he or**
8 **she, they probably would have fallen by then,**
9 **so there's no point lowering anything. It**
10 **would be lowered by falling, but then that's**
11 **not the desirable outcome, is it?**

12 **Q Would a PHOSITA reduce the height of**
13 **the height adjustment mechanism so that the**
14 **compartments weren't so high, lowering the**
15 **center of gravity?**

16 **MR. KWAK: Objection, vague.**

17 **THE WITNESS: So reduce the height**
18 **meaning by design, making the stroke that**
19 **is provided by the motion of the**
20 **gas piston, or whatever is there, let's**
21 **assume it's a gas piston, or by just**
22 **pushing the button and lowering it? Is**

1 that what you mean?

2 BY MR. JORDAN:

3 Q A person of ordinary skill in the
4 art designing what you have on the left, would
5 they think to design it so that the top could
6 be reachable by a user?

7 A **Reachability is no issue here. The**
8 **issue here is that it's top heavy, it's**
9 **unstable, and no one would have designed it**
10 **this way. That's the whole point of the**
11 **hypothetical.**

12 **No one -- anyone who would graduate**
13 **from an engineering degree would do that, I**
14 **can tell you that. That would be my own**
15 **failure.**

16 Q Your figure on the left, would
17 extending the wheels on the rear side of the
18 platform further to the rear make that cart
19 more stable than the way you've drawn it?

20 A **Now, here is another issue here with**
21 **your assumption is that mobility is critical,**
22 **and stability is critical in all direction,**

1 right? So when you're extending to the back,
2 whatever, the sides, right?

3 So it has to be mobile in all
4 directions so that -- you know, sure, you
5 might have increased, hypothetically speaking,
6 the stability in one direction, but what about
7 the others, right?

8 So that's why the '650 and '668
9 Patents came out to teach everyone who didn't
10 know until that time how to do it in a nice,
11 non-obvious, elegant way to come up with that
12 solution you see on the right side of this
13 figure.

14 Q Could a person of ordinary skill in
15 the art in 2003 consider adjusting the base to
16 make your figure on the left stable?

17 A They wouldn't know how to do that,
18 no.

19 Q We've been going about an hour. If
20 you'd like to take a break, now is an okay
21 time.

22 A It's up to you.

1 Q Okay, we'll take a five-minute
2 break.

3 **A Thank you.**

4 MR. JORDAN: Can we go off the
5 record?

6 (A break was taken at 10:05 a.m.)

7 (Resume at 10:16 a.m.)

8 BY MR. JORDAN:

9 Q Welcome back, Dr. Ben-Tzvi.

10 **A Thank you.**

11 Q Can you turn to paragraph 52 of your
12 declaration, please?

13 **A Yeah, I'm there.**

14 Q In the first sentence you say,
15 "Alternatively, even assuming an ordinary
16 meaning of 'compartment' does not require
17 enclosure, Patent Owner's definition should be
18 adopted because the term has been redefined by
19 the '650 Patent by implication and consistent
20 usage throughout the '650 Patent."

21 And then you cite a legal case,
22 SkinMedica, Inc. v. Histogen.

1 Can you tell me anything about the
2 facts of the SkinMedica case?

3 **A No, other than what's in the**
4 **brackets there. I mean, I can't remember.**

5 Q Did you review the SkinMedica case?

6 **A I might have obviously Googled it to**
7 **find a specific section there, just like**
8 **basically focusing on finding the definition**
9 **can come from consistent usage of the term**
10 **throughout the description and a manner**
11 **consistent with only a single meaning, and**
12 **through implicit disclaimer by distinguishing**
13 **the term from other terms.**

14 **That's what I focused on there.**

15 Q In the next sentence you say,
16 "For example, the '650 Patent never describes
17 the compartments as anything but enclosed."

18 Is it your opinion that the claims
19 should be limited to the disclosed
20 embodiments?

21 **A The claims are the claims. The**
22 **words of the claims is the highest level,**

1 right? You know, if we focus the discussion
2 to intrinsic evidence, then the claim words.

3 And then the next thing you want to
4 look at, if there is a need for clarity, is
5 the description, the figures, and then go
6 through prosecution histories, things like
7 that. So that's intrinsic.

8 And then, of course, there's
9 extrinsic evidence, but in this case, it's
10 enough to see from the patent that there
11 is a -- there's basically a redefinition by
12 implication, and that's all throughout the
13 patent, right, the figures, the description,
14 in case there is any confusion.

15 For example, the patent, you know,
16 always referred to the compartments as
17 enclosed, and it distinguishes compartments
18 with terms like "bins" and things like that,
19 which are open.

20 It also refers to the compartments
21 as lockable, so why would a compartment -- why
22 wouldn't it be enclosed if it's lockable? If

1 it's lockable, then it's got to be enclosed,
2 right? There's nothing to lock if it's open.
3 It also refers to it as a drawer
4 interchangeably.

5 And also there is a figure in the
6 '650 Patent, Figure 7, that clearly
7 distinguishes between cavities and
8 compartments. He chose a figure without the
9 drawers and calling them cavities.

10 So there is enough evidence there to
11 ensure that there is redefinition by
12 implication that compartments must be
13 enclosed.

14 Q Take a look at paragraph 18 of your
15 declaration.

16 A I'm there.

17 Q In the second sentence you write,
18 "It is not enough for a patentee to simply
19 disclose a single embodiment or use a word in
20 the same manner in all embodiments, the
21 patentee must 'clearly express an intent' to
22 redefine the term."

1 Doesn't that contradict your
2 sentence here where you rely on the patent
3 never describing compartments as anything but
4 enclosed?

5 **A That's why I said redefinition by**
6 **implication, right, so ...**

7 Q Are you applying a legal principle
8 of redefinition by implication?

9 **A Well, when it comes to the**
10 **legalities, from my understanding, is that**
11 **when it comes to finding any reason to deviate**
12 **from the terms of the patent claim or claims,**
13 **there's got to be a clear either redefinition**
14 **or disclaimer, right? These are the two**
15 **things. And in this case, I am using**
16 **redefinition by implication.**

17 **And the figures, the words of the**
18 **patent claim itself explains that compartments**
19 **are basically an enclosed space for containing**
20 **an item fully in front of the height**
21 **adjustment mechanism.**

22 Q Moving forward to paragraph 57 of

1 your declaration.

2 **A Yes, I'm there.**

3 **Q Here you're talking about the**
4 **"disposed in" term of the claims, and you give**
5 **a reason in bold that says "All embodiments**
6 **described depict the compartments entirely in**
7 **or contained in the forward projecting portion**
8 **of the work platform."**

9 Is it your opinion that the claims
10 should be limited to the described
11 embodiments?

12 **A Well, in general -- in general,**
13 **okay -- claims, in general, are not supposed**
14 **to rely. Embodiments are examples, right?**
15 **But there is also the description, right, that**
16 **shows the intent, and therefore, upon reading**
17 **the description, and the prosecution history**
18 **as well, not just the figures -- of course,**
19 **the figures are very clear -- then there's no**
20 **question that the compartments -- that the**
21 **compartments are fully in front of the height**
22 **adjustment mechanism.**

1 Q Can you go back to paragraph 20 of
2 your declaration, please? Here you write,
3 "The Federal Circuit has repeatedly cautioned
4 against limiting the claimed invention to
5 preferred embodiments or specific examples
6 described in the patent specification."

7 Are you limiting the claim to the
8 disclosed embodiments with your construction?

9 **A The '650 and '668 claims?**

10 Q The term in paragraph 57, the
11 "disposed in" term that we're talking about,
12 aren't you limiting it to disclosed
13 embodiments?

14 **A The claims are clear enough not to**
15 **be needing to limit anything to anything.**

16 I mean, the claims are clear in what
17 they're saying, that the compartments are in
18 front of the height adjustment mechanism
19 fully, like in front of it. "Forward" means
20 in front. It's just plain and ordinary
21 meaning of the term "forward."

22 Q Going back to paragraph 53 of your

1 declaration --

2 **A Okay.**

3 Q -- around the middle you have a
4 sentence that starts with "Similar to the
5 SkinMedica case." Do you see that?

6 **A Yeah.**

7 Q Can you compare anything about the
8 specification here with the SkinMedica case?

9 **A I'd need to have the case in front
10 of me. I can't remember.**

11 Q Did you draft this paragraph of your
12 declaration, Dr. Ben-Tzvi?

13 **A Yes.**

14 Q And you reviewed the SkinMedica
15 case?

16 **A Very briefly, just to focus on what
17 I'm trying to get there.**

18 Q How did you find the cases that you
19 cited?

20 **A I asked the help of counsel.**

21 Q Did counsel provide the cases to
22 you?

1 **A** Well, we had a discussion about
2 cases and what would be the most appropriate
3 fit as I was drafting this declaration, and of
4 course, I'm a technical expert, so when it
5 comes to legal cases and searching, I don't
6 have access to databases, so I asked him to
7 help me search for cases.

8 **Q** Can you recall if he provided the
9 SkinMedica case to you?

10 **A** Yes.

11 **Q** I want to go back to the part of
12 your declaration about the term "disposed in"
13 you were talking about in the beginning of
14 paragraph 57 of your declaration.

15 I want to direct you to the first
16 sentence under the big bold bullet B on
17 page 29. Let me know when you're there.

18 **A** I'm there.

19 **Q** It says, "In fact, it is impossible
20 for the compartments in the cart of the '650
21 and '668 Patents to extend outside the forward
22 (front) projecting portion of the work

1 platform (e.g., to the rearward direction from
2 the height adjustment mechanism) because the
3 height adjustment mechanism would be in the
4 way, thus preventing a user from accessing
5 items stored in the compartment as required by
6 the claims at issue."

7 I'd like you to turn to Tab 3, to
8 Figures 11 and 12. These are Figures 11 and
9 12 of the '650 Patent.

10 **A Yeah, I'm there.**

11 **Q** Why is it impossible for the
12 compartments in the cart to extend outside the
13 forward projecting portion of the work
14 platform?

15 **A** There are several reasons. As the
16 paragraph you just recited from my declaration
17 said that these compartments could be easily
18 accessible by the user, right?

19 Then I provided a hypothetical
20 figure on page 30, at the bottom of page 30 in
21 my declaration, showing what would have
22 happened if someone designed the cart like

1 that, then the user facing it in the rearward
2 direction wouldn't have access to the
3 hypothetical rearward projecting portion.

4 Q Take a look at Figure 11 of the
5 '650 Patent, please.

6 It's fair to say the height
7 adjustment mechanism does not take up the
8 whole width of the work platform, right?

9 A I'm not sure I understand your
10 question. The height adjustment mechanism
11 does not take up the whole width of the work
12 platform? Oh, I see what you're saying.

13 Yeah, so in that illustration, as we
14 can see it, it's almost like a cylindrical
15 shape between the base and the upper portion,
16 the height-adjustable compartment. It's
17 narrower than the width of the compartments.

18 Is this what you're asking?

19 Q Would you agree there are portions
20 of the work platform that extend to either
21 side of the height adjustment mechanism?

22 A Well, I mean, if you put it in the

1 right context, if you look at the figure on
2 the right, let's assume you create an
3 imaginary plane, okay? And that plane is
4 right at the line where the compartments abut
5 the height adjustment mechanism, right?

6 So the compartments -- we need to
7 establish the fact that the compartments are
8 first fully in front. Sure, they're wider,
9 naturally, but they're still fully in front.
10 Nothing is projecting in the rearward
11 direction.

12 Q Figure 12 is a section view, right?

13 A Yes. I mean, I don't know if it's a
14 cross section. It looks like a combination of
15 side view. Yeah, probably section.

16 Q And it's fair to say Figure 12 is a
17 section you cut approximately through the
18 middle of the cart, right?

19 A Yes.

20 Q If we cut a different section view
21 based on Figure 11 where the line was further
22 to the left, what would that section look

1 like?

2 A Which direction? So we're assuming
3 that the user is facing it in the rearward
4 direction, and you're putting the plane, the
5 cutting plane, where again? On the left?

6 Q So this is a copy of Figure 11, and
7 I've drawn a line on it, AA, with an
8 alternative location for the section view.

9 Where would the compartments be in a
10 section view based on that line?

11 MR. KWAK: Objection, vague.

12 THE WITNESS: I mean, I don't have
13 the exact dimensions and, you know,
14 where -- I need the datum line, it's
15 called a datum line, to show where is
16 that AA section you're providing with
17 respect to the center line of the height
18 adjustment mechanism.

19 But if I really were to guesstimate,
20 then it's cutting through the side bin
21 there. So you just see the side bin in
22 terms of where you put the line right

1 now. But again, it's an estimate.

2 BY MR. JORDAN:

3 Q Can you say for sure --

4 A **And a cupholder.**

5 Q -- that the compartments would not
6 extend all the way to the rear of the work
7 platform in a section cut on that line AA?

8 MR. KWAK: Objection, vague.

9 THE WITNESS: The compartments are
10 fully in front, and they're not shown to
11 be extending in the rearward direction.

12 BY MR. JORDAN:

13 Q Would it be possible to put a
14 compartment in the cart that did extend to the
15 rearward direction at that line?

16 MR. KWAK: Objection, vague.

17 THE WITNESS: I mean, "possible" is
18 a very generic statement. Anything can
19 be possible, but the question is are you
20 keeping the COG as low as possible close
21 to the ground, right?

22 So if you start extending things to

1 the back, then you're modifying the
2 center of gravity.

3 So what's unique about the solution
4 you see here in Figure 12 is that, to
5 maintain the COG as low as possible and
6 enhance the stability of the entire cart,
7 the compartments have been placed in
8 front, fully in front of the height
9 adjustment mechanism.

10 Of course, everything has a width.
11 It has to have a width so you can have
12 space to put things in there, but the
13 idea is that it's in front of it. That's
14 the key point here.

15 BY MR. JORDAN:

16 Q So you agree it's possible for a
17 narrow drawer to be placed in the side of the
18 work platform that extends all the way to the
19 rear to the back of the height adjustment
20 mechanism?

21 A I mean, I honestly don't know what's
22 possible because, you know, we are not dealing

1 with weights, dimensions, what is the location
2 of the COG.

3 When you design a system, you have
4 to account for everything, so it's really hard
5 to work off of hypotheticals in this case.

6 I mean, anything is possible, but is
7 it a smart design decision that would maintain
8 the stability and the ergonomic features that
9 are offered by the '650 patent? I don't know.

10 Q Could one of ordinary skill figure
11 out how to install a drawer that extended just
12 to the side of a height adjustment mechanism
13 in that work platform?

14 MR. KWAK: Objection, vague.

15 THE WITNESS: What's the definition
16 of "to the side"? I think the question
17 is a bit too general for me to answer
18 with the technical accuracy that is
19 merited in this case.

20 So what do you mean by "the side"?
21 Which side? There are four sides here.

22

1 BY MR. JORDAN:

2 Q Take a look at Figure 11.

3 A Okay.

4 Q Do you see the bin on one side of
5 the cart?

6 A I see a bin on both sides.

7 Q The bin on the left, compare that to
8 the height adjustment mechanism. That's the
9 side I'm talking about.

10 Could you put a drawer on the side
11 of the height adjustment mechanism that's
12 contained in the work platform?

13 MR. KWAK: Objection, vague.

14 THE WITNESS: So you're asking if
15 someone can remove that side bin and put
16 a drawer there instead?

17 I'm not sure I understand your
18 question. I'm sorry.

19 BY MR. JORDAN:

20 Q Take a look at Figure 1, please, of
21 the '650 patent.

22 A I'm there.

1 Q So I'm talking about a drawer like
2 drawer 570. Would it be possible to have a
3 narrow drawer 570 that extended beyond the
4 front of the height adjustment mechanism?

5 MR. KWAK: Objection, vague.

6 THE WITNESS: I mean, as I said
7 earlier, that wasn't the conventional
8 wisdom.

9 Again, the unique non-obvious
10 features of the '650 Patent is to put
11 these compartments, as you can see in
12 Figure 1, fully in front of the height
13 adjustment mechanism. Nothing of it, no
14 portion of it is extending in the
15 rearward direction.

16 If you were to put it in the
17 rearward direction, then I would need to
18 know the dimensions, the mass
19 distribution, the COG location to see if
20 it's permitted so it doesn't violate the
21 desired low COG to maintain stability
22 during mobility.

1 BY MR. JORDAN:

2 Q Would extending the drawer further
3 to the rear lower the center of gravity of the
4 cart?

5 A I mean, it depends. The way
6 engineers do it is they use a software called
7 CAD, computer-aided design, and this software
8 allows you to change dimensions and assign
9 density properties, basically kind of
10 recreating what would be the material of any
11 part of the cart, and this way the computer
12 can immediately calculate the COG location.

13 So really it's a function of
14 dimensions, mass distribution, weights,
15 materials used. It's a function of so many
16 technical things that being able to answer
17 such a generic question is going to be very
18 hard. It's not going to be an accurate
19 answer.

20 Q But you could figure out how to do
21 that, right?

22 A To do what?

1 Q To install a drawer in the work
2 platform that extended to the side of the
3 height adjustment mechanism.

4 A Which side? Are we talking about
5 the right side? Left side? Rearward?
6 Forward?

7 Q Talking about drawer 570.

8 A What do you mean "to the side"?

9 Q Let's go back to this drawing again,
10 Figure 11 and 12. Do you see section line AA?

11 A Yes.

12 Q I mean a drawer that would be in
13 line with section line AA.

14 A Okay. What's the question?

15 Q Would it be possible to have a
16 drawer in that section line?

17 MR. KWAK: Objection, vague.

18 THE WITNESS: I don't understand
19 your question. I mean, what do you mean?
20 A drawer in what orientation? Would you
21 like to assign an axis XYZ here, create
22 some hypotheticals and assign a COG, a

1 temporary COG, and do more technical --
2 more accurate technical discussions here?

3 Because I'm looking at a figure,
4 it's an isometric view of the cart, and
5 you put the line arbitrarily somewhere,
6 and that's not how you assign AA. You
7 usually put it on a side view, either
8 side view, top view, or bottom view, but
9 the assigned AA line on an isometric view
10 is not a proper engineering way of doing
11 things. So it's like -- for me, it's a
12 line floating in the air. I have no clue
13 where it's coincided.

14 MR. JORDAN: Can I have that exhibit
15 back, please? I'd just like to mark this
16 as Exhibit 1034.

17 (Exhibit 1034 was marked
18 for identification.)

19 BY MR. JORDAN:

20 Q This is Figure 11 and 12 of the
21 '650 Patent, and I've made some more markings
22 on it. You'll see I have a new vertical line

1 on Figure 11 labeled BB.

2 So imagine we were drawing a section
3 view through BB. We've already discussed the
4 height adjustment mechanism doesn't take up
5 the whole width of the cart.

6 We agree to that, right?

7 **A Referring to Figure 11, it looks**
8 **narrower, yes.**

9 Q Yes. So if we were going to draw on
10 Figure 12 a section view approximately at the
11 line of BB, we wouldn't see the height
12 adjustment mechanism in the work platform in
13 that image, right?

14 **A Can I explain something to you, if I**
15 **may?**

16 I really appreciate you trying to
17 draw another line, BB, which is identical to
18 line AA in your Exhibit 1034, but that's not
19 the way to assign cross section marks.
20 They're not done on isometric views. It's
21 improper, it's vague, and I don't know exactly
22 where that line is, because the way I see it,

1 BB is going to go through the page, and it's a
2 diagonal cut of this cart, right? So that
3 doesn't represent Figure 12 section view.

4 The way you assign AA, BB, GG, FF,
5 whatever you want to call it, on a side view,
6 top view, bottom view, not an isometric view.
7 That's why I cannot answer your question.
8 It's very vague. Just to put a line on an
9 isometric view, it's not the proper
10 engineering way of doing it.

11 Q Can you draw for me how you would
12 identify the section that's shown in Figure 12
13 in Figure 11?

14 A I can't because I don't have that
15 side view.

16 The way it's done, I'll explain to
17 you, is you have an isometric view in one
18 quadrant, and you have three additional
19 quadrants that show the top side and bottom
20 views, and only on those views you can assign
21 section lines, right?

22 And then once you assign section

1 lines, you can refer to it referring to
2 section line AA, here is another, here is a
3 cross section of that, you know, resulting
4 view. That's the way it's done.

5 I cannot answer any questions that
6 you assign in these lines on an isometric
7 view.

8 Q But you were able to tell me where
9 the section view in Figure 12 was from, right?

10 A You didn't ask me that. I don't
11 know where that section is coming from. It's
12 a separate figure. I don't think it's even
13 related to Figure 11. No one said that.

14 Q Can I have that back, please? I'd
15 like to mark it for the court reporter.

16 We'll mark this as 1035.

17 (Exhibit 1035 was marked
18 for identification.)

19 BY MR. JORDAN:

20 Q Go back to Figure 1, please, of the
21 '650 Patent.

22 A I'm there.

1 Q If you extended drawer 570 to the
2 rear so it extends to the side of the height
3 adjustment mechanism, would it affect the
4 cart's stability and center of gravity?

5 A I think I answered that question,
6 but I'm happy to summarize again.

7 Again, there is a lot of factors to
8 consider for anyone to be able to do that, and
9 if they considered the dimensions, the size of
10 the base, the weight distribution, the height.
11 There are a lot of things to consider before
12 anyone would consider doing that.

13 Q Is your answer complete?

14 A More or less.

15 Q Can you say if it would affect the
16 center of gravity?

17 A In general, generally speaking,
18 placement of any component on any mobile cart,
19 adding anything, yes, it affects the
20 location -- changes the location of the center
21 of gravity in general terms.

22 Q If we extend drawer 570 towards the

1 rear of the cart without raising it or
2 lowering it, does it affect the height of the
3 center of gravity?

4 **A I can't answer that question.**

5 **There's not enough technical information to**
6 **assess, but I can give you this example.**

7 **So if you have a box, and the box is**
8 **20 centimeter by 20 by 20 sitting on the**
9 **table, and it's homogeneous, meaning that the**
10 **mass is equally distributed and the center of**
11 **gravity would be right at the center, then if**
12 **you were to add another box of identical size,**
13 **identical mass distribution, right on top of**
14 **it with the same dimensions, the center of**
15 **gravity will go up by 10 centimeters.**

16 **So, you see, I can talk technical**
17 **details with exact location changes of COG by**
18 **dimensions and shape sizes and things like**
19 **that, mass distribution.**

20 **The hypotheticals you're giving me**
21 **do not give me enough technical information to**
22 **give you a genuine answer, and that's my job**

1 **sitting here as an expert.**

2 Q Does the '650 Patent include
3 dimensions?

4 A **From the figures that I see, no.**

5 Q How are you able to assess the
6 center of gravity of the cart in the
7 '650 Patent without dimensions?

8 A **I'm not assessing the center of
9 gravity, but by virtue of the functionality
10 described, right, in the patent claim terms,
11 right.**

12 **So it's claiming compartments that
13 are height adjustable fully in front, and that
14 functionality and that actual design feature
15 immediately alludes to the fact that it's a
16 lower center of gravity, therefore, it's a
17 more stable cart.**

18 Q I want to ask you a question about
19 one of the claim terms from -- I'm going to
20 read from the '650 Patent, and I can direct
21 you to it so we can read it together. It's
22 column 14.

1 **A Okay.**

2 **Q And line 39, it is says "wherein the**
3 **work platform includes a portion projecting,**
4 **relative to the height adjustment mechanism,**
5 **in the forward direction."**

6 I'm going to pause there. I'm going
7 to give you another copy of Figure 12 from the
8 '650 Patent, and if you would, please, with
9 this orange highlighter, I'd like you to
10 identify in Figure 12 the portion of the work
11 platform that projects relative to the height
12 adjustment mechanism in the forward direction.

13 **A So line 39, wherein the work**
14 **platform includes the portion projecting,**
15 **relative to the --**

16 THE REPORTER: I can't hear you,
17 Doctor.

18 THE WITNESS: I'm going to repeat,
19 sorry.

20 THE REPORTER: Okay.

21 THE WITNESS: "[W]herein the work
22 platform includes a portion projecting,

1 relative to the height adjustment
2 mechanism, in the forward direction."

3 Just this sentence, right? Not the
4 rest.

5 BY MR. JORDAN:

6 Q Yes. Please identify in Figure 12
7 the portion of the work platform that
8 projects, relative to the height adjustment
9 mechanism, in the forward direction with the
10 orange highlighter, please.

11 A **(So indicating)**

12 Q Is that complete?

13 MR. KWAK: Can I see that?

14 THE WITNESS: Did you see?

15 MR. KWAK: Yeah, I saw it.

16 THE WITNESS: What's the question
17 again?

18 MR. JORDAN: I'm just going to write
19 Exhibit 1036 on this document and give
20 that to you for safe keeping.

21 (Exhibit 1036 was marked
22 for identification.)

1 THE WITNESS: Can I have that figure
2 back?

3 (Witness drawing on Exhibit 1036)

4 THE WITNESS: So just to put things
5 in context, the subsequent portion says
6 "wherein the compartments [sic]," or the
7 compartment in this case, "is disposed in
8 the portion of the work platform
9 projecting in the forward direction."

10 So as you can see, the compartments
11 are fully in front of the height
12 adjustment mechanism.

13 Can I have a pen, please? Thanks.

14 I'm going to draw a line here,
15 somehow it's not accurate, but this is
16 forward. So that's forward, "FWD," and
17 that's a line in front of the height
18 adjustment mechanism.

19 I just want you to have a better,
20 you know, explanation there so you can
21 refer to it later.
22

1 BY MR. JORDAN:

2 Q Is it your understanding that the
3 compartments are touching the height
4 adjustment mechanism?

5 A I don't think it matters. It's in
6 front of it. It's forward, in front.

7 Q If there's a gap between the rear of
8 the compartments and the height adjustment
9 mechanism, would it still project from the
10 height adjustment mechanism in the forward
11 direction?

12 MR. KWAK: Objection, vague.

13 THE WITNESS: From what I see in the
14 figure, there's no gap. It's projecting.

15 So in mechanical engineering, when
16 it says something is projecting, a beam
17 is projecting from a support wall, then
18 it's abutting it, either by welding or
19 bolts. There's no reason to put a gap
20 there.

21 BY MR. JORDAN:

22 Q Does "projecting from" require the

1 compartments to abut the height adjustment
2 mechanism?

3 **A I mean, I think in the context --**

4 MR. KWAK: Objection, vague.

5 THE WITNESS: In the context of this
6 patent, I would say that, you know, I
7 don't see any gap in any of the figures
8 or anything like that, or in any of the
9 discussions. It's irrelevant to the
10 claim language.

11 The claim is not requiring a gap for
12 the claim to be non-obvious compared to
13 the state of the art prior to the time
14 frame of these patents.

15 BY MR. JORDAN:

16 Q You started to describe "projecting
17 from" in terms of mechanical engineering.

18 What did you mean by that?

19 **A So one example I can give you is in**
20 **computer-aided design.**

21 **So when you design something, design**
22 **can be done by two methods, by addition or**

1 subtraction of values, and then you assign
2 density properties to assigned materials,
3 et cetera.

4 So, for example, if I would like to
5 create, let's say a T shape, I would start
6 with a wall, let's say it's a vertical wall,
7 and then I would tell the computer, at this
8 height and at this cross section, I can assign
9 sizes, create a protrusion or projection,
10 okay? Then we'd project at a certain length
11 something that projects out of that wall. So
12 in that case, it's coming out of the wall. It
13 has to touch the wall.

14 That's just one example for you to
15 understand what I'm talking about.

16 Q Do the claims require that the
17 compartments touch the height adjustment
18 mechanism?

19 MR. KWAK: Objection, asked and
20 answered.

21 THE WITNESS: I mean, as I said
22 earlier, I can give the same answer if

1 you would like. I think that was my best
2 answer, so can she read it for you, or
3 you want me to repeat it? Can the
4 reporter read it for you?

5 BY MR. JORDAN:

6 Q Do the claims require the
7 compartments touch the height adjustment
8 mechanism?

9 MR. KWAK: Objection, asked and
10 answered.

11 THE WITNESS: I mean, it's
12 irrelevant to the case here. The claims
13 are non-obvious as they are written, and
14 any gap, whether it's projecting with or
15 without a gap, is irrelevant. It could
16 be both.

17 MR. JORDAN: We're done discussing
18 that one. I'll give it back to you.

19 (Referring to the court reporter)

20 BY MR. JORDAN:

21 Q Do the compartments and the work
22 surface in the work platform have to be

1 contiguous with each other to meet the claims?

2 MR. KWAK: Objection, vague.

3 THE WITNESS: Can you repeat the
4 question again?

5 BY MR. JORDAN:

6 Q Do the work platforms, work surface
7 and compartments have to be contiguous with
8 each other to meet the claims?

9 A Contiguous meaning abutting,
10 touching?

11 Q You tell me what you interpret
12 "contiguous" to mean.

13 A I need a Merriam Webster definition
14 of "contiguous."

15 Q You don't know what the word
16 "contiguous" means?

17 A Are you going to judge me for that?

18 Q You can qualify the answer, to the
19 extent you need to, with your understanding of
20 the term. So I just want to ask again --

21 A I mean, it has different meanings,
22 so I just want to understand the context of

1 **"contiguous."**

2 Q You are free to qualify your answer
3 however you need to based on your
4 understanding of the word.

5 And so my question is, does the work
6 surface and the compartments contained in the
7 work platform need to be contiguous?

8 A Well, it says "disposed in," so it
9 could be either way.

10 I mean, in this case, the work
11 platform, the compartments sit right under,
12 abutting the work surface, but still fully
13 projecting in front of the height adjustment
14 mechanism, and that's what the claim basically
15 claims.

16 Q So with the definition of
17 "contiguous" as being in actual contact,
18 touching along a boundary or at a point --

19 A Abutting.

20 Q Does that change your answer, that
21 definition?

22 A No.

1 **I was just having some fun. Just**
2 **kidding.**

3 Q Lawyers are never fun, Dr. Ben-Tzvi.

4 A **Say that again.**

5 Q Lawyers are never fun.

6 A **Tell me about it.**

7 Q I want to ask you about paragraph 37
8 of your declaration. Can you turn to that,
9 please?

10 A **Paragraph 37. Where is the**
11 **declaration? The first exhibit, right?**

12 Q That's right.

13 A **37, yeah, I'm there.**

14 Q Actually, I see we've been going
15 about an hour. Would you like to take another
16 break?

17 MR. KWAK: I could use the restroom
18 myself, so yeah.

19 THE WITNESS: Sure.

20 MR. JORDAN: Okay, take a 10-minute
21 break. Let's go off the record, please.

22 (A break was taken at 11:07 a.m.)

1 (Resume at 11:18 a.m.)

2 BY MR. JORDAN:

3 Q Welcome back, Dr. Ben-Tzvi.

4 A Thank you. Can we start with -- I
5 just need to clarify something that I thought
6 about in the bathroom as I was doing my
7 business. It occurred to me that I might have
8 made a mistake. Can I have the 1036 exhibit
9 back, please?

10 So I was thrown off by the way you
11 read the sentence, and then I read the rest of
12 the sentence, and I just want to make a
13 correction that is contradictory to what I
14 said in the declaration.

15 And something I also even mentioned
16 earlier, I did mention earlier that the
17 patentee disclaimed top-mounted workstations,
18 and I mistakenly marked the surface as
19 "forward," but it's not.

20 So basically what's forward in this
21 case, or in front, is just the compartment
22 here, whereas the surface is actually on top,

1 **right?**

2 **So "forward" doesn't mean on top,**
3 **and I already stated that earlier. Therefore,**
4 **this is not part of it and these arrows are**
5 **wrong. It should be just arrow here saying**
6 **"forward."**

7 MR. KWAK: Just for the record, the
8 witness is marking up Exhibit 1036.

9 THE WITNESS: So delete that here.

10 So I'm going to remove this and put
11 an X on that highlighted part.

12 If you can give me another figure, I
13 will illustrate it again on an empty
14 page, but just these in this hatched line
15 mentioned here is what's forward, and the
16 top part is on top.

17 So there is this distinction between
18 "on top" and "forward," as I explained
19 earlier during the deposition, where I
20 stated in citing the prosecution history
21 of the '650 Patent where "forward" is not
22 on top. It's in front.

1 So I just want to eliminate that top
2 part and focus on the hatched section
3 here. I hope that makes sense.

4 Sorry about that. Thank you.

5 BY MR. JORDAN:

6 Q Dr. Ben-Tzvi, did you speak with
7 your attorney about the subject of your
8 testimony during the break?

9 A What?

10 Q Did you speak with your attorney
11 about the contents of your testimony during
12 the break?

13 A We just talked about the --
14 you know, the fact that what I mentioned
15 earlier in the declaration itself. I just
16 needed to read the whole sentence to make sure
17 that I say things correctly as I said in my
18 declaration.

19 I did mention it earlier. I made it
20 clear that "forward" doesn't mean on top,
21 so ...

22 MR. JORDAN: Can we go off the

1 record, please?

2 (Discussion held off the record.)

3 BY MR. JORDAN:

4 Q So please tell us what you discussed
5 with your attorney during the break.

6 MR. KWAK: Yeah, I just mentioned to
7 him that when he talked about that
8 testimony about --

9 MR. YOUNG: Counsel, can he tell us
10 what the conversation was?

11 MR. KWAK: Yeah, that's what I'm
12 trying to do right now.

13 MR. YOUNG: He's the witness.

14 MR. KWAK: Oh, I'm sorry, I thought
15 you asked me. Okay.

16 THE WITNESS: What's the question?

17 BY MR. JORDAN:

18 Q Please tell us the contents of your
19 discussion with your attorney during the
20 break.

21 A Well, basically I asked him about
22 the figure that you gave me, and I told him I

1 might have made a mistake that is in
2 contradiction to my declaration, and if I'm
3 allowed to fix the exhibit that he marked as
4 1036.

5 Q Anything else?

6 A No.

7 MR. JORDAN: Counsel, I'd like to
8 ask you, please do not discuss the
9 witness's testimony during breaks until
10 the deposition is concluded today.

11 MR. KWAK: Okay, thank you.

12 MR. JORDAN: Counsel, do you have
13 anything to add to that discussion?

14 MR. KWAK: The only thing I did was
15 I did mention that if -- I told him,
16 you know, to be honest with what we --
17 anything that we discussed on a break.
18 You know, that if he asks you if we
19 discussed anything, to tell him the
20 truth, which he did. So we're not trying
21 to hide anything.

22 But for future, for the rest of the

1 deposition, I will refrain from
2 mentioning anything about the
3 conversations that were discussed in the
4 deposition.

5 BY MR. JORDAN:

6 Q Can we go back to binder Tab 4?
7 This is the Dell Figure, the Dell patent.
8 Take a look at Figure 1, please.

9 The cabinet 100 there of Dell, is
10 that located in a forward portion of the work
11 platform projecting from the height adjustment
12 mechanism?

13 A **It's not clear from the figure.**

14 Q Take a look at Figure 6.
15 Can you answer the question now?

16 A **What's the number of the item you're**
17 **referring to?**

18 Q 100.

19 A **I don't see 100 in this figure.**

20 Q It's in Figure 1, right?

21 A **Yeah, but you're asking me to look**
22 **at Figure 6.**

1 Q I'm asking you about where
2 compartment 100 is on Dell.

3 Are you able to tell me that after
4 looking at the figures of Dell?

5 A I mean, you're referring to
6 Figure 6, I don't see item 100, so I don't
7 know what's the -- I don't know.

8 Q How about item 102 in Figure 6?

9 A What is item 102?

10 Q That's the side of compartment 100.

11 A That's what the patent says?

12 Q That's right.

13 A Oh, okay. Okay, so item 102.

14 Can you repeat the question now?

15 Sorry about that.

16 Q Is Dell's compartment 100 located in
17 the portion of Dell's work platform that
18 projects from the height adjustment mechanism
19 in the forward direction?

20 A Then we'd need to start with
21 realizing that it's not a compartment. It's
22 not enclosed. It's a cavity, similar to a

1 **keyboard cupboard as presented in other**
2 **workstations that are height adjustable.**

3 **Did I answer your question?**

4 Q No. My question is, is Dell's
5 compartment 100 -- that's the term Dell uses
6 to describe item 100 -- is it located in the
7 portion of Dell's work platform that projects
8 from Dell's height adjustment mechanism in the
9 forward direction?

10 A So I'm trying to look at all the
11 figures here. I want to give you an answer
12 that is as accurate as possible.

13 I don't see it from Figure 1.

14 Now, Figure 6 does show a view. I
15 don't know if it's a side view because I don't
16 have a datum line or a datum surface. It
17 could be angled, it could be some portion of
18 it extending from the back backwards.

19 I don't think I have enough details
20 to give you a conclusive answer on whether
21 it's fully in front or partially in front.
22 It's hard to say from the way the figures were

1 **illustrated.**

2 **There's no labeling of sides in**
3 **these figures. I see that the base is some**
4 **sort of a hexagon, and --**

5 Q So column 2 of Dell says Figure 6 is
6 a side elevation view of the workstation.

7 Does that enable you to determine
8 whether Dell's compartment 100 is in the
9 forward projecting portion of Dell's work
10 platform with respect to the height adjustment
11 mechanism?

12 A **Which side, though? Is it the left**
13 **side? The right side? Should we assume?**

14 Q Assume the right side is the forward
15 direction.

16 A **The right side.**

17 Q In Figure 6.

18 A **So to help you with that, I also**
19 **need to see the front view, and I don't think**
20 **I see a front view, unless you can help me**
21 **find it.**

22 Q Take a look at any --

1 **A I can compare two views to show the**
2 **extent of anything projecting from anywhere.**

3 **Q Perhaps compare Figure 1 and**
4 **Figure 6.**

5 **A Now, Figure 1 is an isometric view.**
6 **I don't have a front view side by side with a**
7 **side view.**

8 **Q How about Figure 5? Column 2 says**
9 **Figure 5 is a front elevation view of the**
10 **workstation.**

11 **A Okay. So from what I see, again,**
12 **this Figure -- none of Figures 5 or 6 mark**
13 **this 100, so I don't know if they're referring**
14 **to the same 100 that is shown in Figure 1. I**
15 **don't see 100 here, so it's really hard to**
16 **give you a straight answer, an accurate**
17 **answer.**

18 **Q Okay. How about looking at side 102**
19 **that's labeled in Figure 5 and 6.**

20 **Does that help you?**

21 **A Yeah, so I see side 102, but I don't**
22 **see side 104 in Figure 6. Where is that**

1 **located, that side view?**

2 Q Well --

3 A I don't know if it's extending or
4 not. There is some mesh thing hiding a
5 portion of this. So is there a top view? A
6 top view may be actually helpful. No, I don't
7 see a top view that shows that either.

8 **It's a bit poorly drafted patent.**

9 Q What view are you missing to be able
10 to determine if compartment 100 is in the
11 forward projecting portion of the work
12 platform?

13 A I need three views: side view,
14 front view, and top view.

15 Q You can't determine whether
16 compartment 100 is in the forward projecting
17 portion of the work platform without a top
18 view, side view, and elevation view?

19 A You need to have all views to
20 determine the space that anything occupies in
21 a three-dimensional space.

22 **So I'm looking -- again, I**

1 see sides -- looking in Figure 5, I see sides
2 102, 104 in the patent. That confirmed that
3 these are sides of 100. I don't see 100 or
4 104 in Figure 6.

5 A top view showing those sides, and
6 also showing the front and back numbered,
7 which are not numbered, would have given me
8 enough technical information to conclusively
9 determine whether it's fully in front or not.

10 Q So Dell doesn't have enough
11 information for you to conclusively determine
12 whether Dell's compartment is in the forward
13 directing portion of the work platform with
14 respect to the height adjustment mechanism?

15 A Yes.

16 Q Okay. Figure 2 is a top plan view
17 of the workstation. Does that supply your
18 missing information?

19 A It doesn't show anything. It just
20 shows a hexagonal shape. It doesn't show any
21 details of item 100.

22 Someone who would want to emphasize

1 the location of that item 100 would have put
2 additional information hidden through dotted
3 or dashed lines. Usually that's the common
4 practice in engineering to show details, but
5 it's not shown in Figure 2.

6 From Figure 1, it looks like it's
7 also extending to the back, because the
8 column has to be somewhere, but I need more
9 views to give you a good answer.

10 Q Okay. Take a look at Figure 6
11 again. Is side 102 extending to the back if
12 we assume the right side is the front?

13 A Side 102 looks like it's not
14 extending to the back, but I don't see side
15 104. Again, I don't know what's the shape of
16 it.

17 I need a top view, an identification
18 of all the sides -- not only the sides, but
19 front and back as well -- to give you a
20 conclusive answer.

21 There is no -- I don't see anywhere
22 where the front and the back of 100 are

1 **marked. Does the patent claim of this Dell**
2 **say anything about projections?**

3 Q Take a look at column 3 of Dell,
4 line 10. It says "Compartment 100 may be a
5 three-sided, C-shaped container including
6 sides 102, 104, rear side 106 and open side
7 108."

8 A **What is the rear side 106?**

9 Q So you can see 106 in Figure 4, you
10 can see it in Figure 1.

11 A **Okay, yeah, I see that.**

12 Q Do you have enough information now
13 to determine whether Dell's compartment 100 is
14 in the portion of Dell's work platform that is
15 projecting from the height adjustment
16 mechanism in the forward direction?

17 A **So I see that it says C-shaped. I**
18 **don't see any illustration of C-shape here, so**
19 **I don't know how that C-shape extends. Does**
20 **it extend to the back or not? So that's why I**
21 **need the top view to give you a conclusive**
22 **answer, which is not available in this patent.**

1 Q So your testimony is you can't tell?

2 A I want to give you an accurate
3 answer, so I need more information to
4 determine that.

5 Still looking at this patent, it's
6 nothing close to the '650 Patent. There's no
7 compartment. There's a cavity of some sort,
8 and it's all the way at the bottom, and the
9 claim talks about some counterweight. So they
10 also didn't know how to find an elegant
11 solution for height-adjustable compartment
12 looks like.

13 I'm trying to read claim 1 here.
14 It's not claiming anything, any features of
15 claim 1 of '650, or claims 3 and 4 of '668.

16 Q I want to ask you more about your
17 declaration. Can you please turn to
18 paragraph 64 of your declaration?

19 So in this section of your
20 declaration, you're discussing prior art
21 reference US patent number 6,493,220. I'm
22 going to call that Clark. Is that fair?

1 **A Yes.**

2 **Q Tab 5 of your binder, I have a**
3 document marked Exhibit 1010 from
4 IPR2023-01274, and this is the Clark
5 reference. Take a look at Tab 5 of your
6 binder.

7 **A Okay.**

8 **Q You're familiar with this patent,**
9 yes?

10 **A Yes.**

11 **Q Okay. And back to your declaration**
12 in paragraph 64, this document here in Tab 5
13 is the reference you discuss, yes?

14 **A Yes.**

15 **Q We'll just call that Clark.**
16 In paragraph 64 of your declaration
17 you say, "The side views of the cart of Clark
18 illustrate that the keyboard tray of Clark
19 (even assuming it is a 'compartment') is
20 mounted on top of the height adjustment
21 mechanism and thus is disposed outside a
22 portion that is forward (or in front) of the

1 height adjustment mechanism."

2 What do you mean by "mounted on top
3 of the height adjustment mechanism"?

4 A So "mounted on top" means it's not
5 forward. It's basically on top of the height
6 adjustment mechanism.

7 And I would refer back to the
8 prosecution history where the patentee of '650
9 and '668 Patent disclaimed top-mounted
10 workstations, like Clark in this case is
11 top mounted. That's why the definition of
12 "forward" is not on top, it means in front of
13 the height adjustment mechanism.

14 Q What makes Clark top mounted?

15 A So there's lots of illustrations
16 here to show. All of them, in fact, shows
17 that top surface and the keyboard cavity are
18 on top of the height adjustment mechanism.
19 They're not in front. They're on top.

20 Q Can you point me to that
21 illustration?

22 A Figure 1, Figure 2, Figure 4,

1 **Figure 8, all of Figures 9, 10, and so on.**

2 Q How is the keyboard tray in Clark
3 mounted to the height adjustment mechanism in
4 Clark?

5 A **On top.**

6 Q Can you give me a callout number in
7 a figure for Clark's keyboard tray?

8 A **Let's see, is it 12? There's No. 12**
9 **and 70. 70 is probably the cavity. I need to**
10 **look at the description of figures probably.**

11 **An adjustable height horizontal tray**
12 **12, supported by chassis 14. So tray 12. Is**
13 **12 good for you?**

14 Q Your declaration says the side views
15 of Clark illustrate that the keyboard tray of
16 Clark is mounted on top of the height
17 adjustment mechanism, and I'm trying to figure
18 out what you mean by that.

19 A **Tray 12.**

20 Q 12 is horizontal tray 12 in Clark.
21 There's also keyboard tray 70.

22 A **70? Which figure are you looking**

1 **at? I see Figure 4A and 4B.**

2 Q So I'm asking if you could clarify
3 what in Clark is mounted on top of the height
4 adjustment mechanism.

5 A **I mean, the tray -- sorry, go ahead.**

6 Q What did you mean keyboard tray 70
7 is mounted on top of the height adjustment
8 mechanism?

9 A **So 70 is part of 12, and 12 is on**
10 **top of it.**

11 Q So when you wrote "The side views of
12 the cart of Clark illustrate that the keyboard
13 tray of Clark ... is mounted on top of the
14 height adjustment mechanism," by "keyboard
15 tray," you're referring to Clark's horizontal
16 tray 12; is that fair?

17 A **I refer to everything on top of the**
18 **height adjustment mechanism. There's 12, 70**
19 **is inside 12. Anything on top. Everything is**
20 **on top of it. 70 extends out from 12. So 12**
21 **is the cavity, 70 is the keyboard tray itself.**
22 **I'm looking at Figure 4B.**

1 **So Figure 4A shows the keyboard tray**
2 **70 retracted or stowed -- sorry, stowed, and**
3 **then in Figure 4B it's extending out.**

4 Q I just need some help from you
5 understanding the terminology, because I think
6 Clark uses a set of terms and you use a set of
7 terms, and I'm trying to see how they align.

8 So in your declaration, you say "the
9 keyboard tray of Clark." Does that refer to
10 the horizontal tray 12 as labeled in Clark?

11 MR. KWAK: Objection, asked and
12 answered.

13 THE WITNESS: Does it matter? I
14 mean, everything is on top.

15 So the way I refer to things is --
16 that's why I'm sitting here to answer
17 your question and explain that everything
18 is on top basically.

19 BY MR. JORDAN:

20 Q Where does the height adjustment
21 mechanism in Clark attach to the horizontal
22 tray 12?

1 **A So tray 12 is sitting on top of the**
2 **height adjustment mechanism.**

3 **Q Does that mean that tray 12, the**
4 **bottom of tray 12, is mounted to the height**
5 **adjustment mechanism?**

6 **A Let me find a good figure.**

7 **Okay, so looking at Figure 1,**
8 **for example, I see 12, and I see 22. 22, I**
9 **believe, is the height adjustment mechanism,**
10 **or a portion of it; and 12, as you can see, is**
11 **right on top of 22.**

12 **Q So is the keyboard tray mounted to**
13 **the top of the height adjustment mechanism**
14 **from the -- scratch that. I'm going to ask a**
15 **different question. Are you ready?**

16 **A Yes.**

17 **Q Is the bottom of Clark's horizontal**
18 **tray 12 mounted to the top of the height**
19 **adjustment mechanism?**

20 **A These figures don't give -- they're**
21 **not exactly executable engineering figures.**
22 **There might be a bracket in between connecting**

1 the two, I'm not sure, but it looks like what
2 matters here is that 12 is on top.

3 How it's mounted exactly to 22, I'm
4 not sure, there's not enough details in the
5 figures, but it's on top of 22. 12 is on top
6 of 22, and it's extending forward and rearward
7 while being on top. I mean, it's on top
8 basically.

9 Q Can you take a look at Figure 4B,
10 please? Do you see shaft 72?

11 A Yes.

12 Q Can you tell me what shaft 72 does?

13 A I can't remember if it's the
14 actuator itself or just a casing of the
15 actuator, but it looks like it's part of the
16 height adjustment mechanism, and 72 goes in
17 and out of 22.

18 Q So looking again in 4B, if you
19 follow the shaft of 72 from the bottom towards
20 the top, do you see that it extends through a
21 hole in the bottom of the horizontal tray 12?

22 A Is there a better view to show that,

1 like maybe a side view? Let's see.

2 I mean, I'm looking at Figure 20,
3 and I don't see anything there. It looks like
4 it's right on top, and I see a lever, probably
5 for height adjusting, for 52.

6 Do you have another question?

7 Q Is your answer complete?

8 A I don't see -- I don't see enough
9 details. I mean, I see something extending.
10 I'm not sure if it's part of 72, it's not
11 labeled separately, so it's hard to tell.

12 I would say that, if it was, it
13 would interfere with the motion of the
14 keyboard tray 70, but that detail is not
15 provided in the patent anywhere, in the claims
16 or the figures or in the description, so it's
17 hard to tell.

18 Q It's fair to say there's a hole in
19 the bottom of tray 12 in Figure 4B, right?

20 A I can't conclusively determine that.
21 Is there anywhere in the specification that
22 clearly states there is a hole?

1 Q I'm asking what you understand from
2 looking at Figure 4B.

3 A What I understand from looking at
4 Figure 4B is that this is a top-mounted
5 workstation for containing on top a work
6 surface and a cavity for keyboard. That's
7 what I see.

8 Q But the shaft extends through the
9 bottom of the horizontal tray 12 into the
10 tray, right?

11 A It's hard to see. Why would it do
12 that? What's the motivation?

13 Again, this is not an engineering
14 drawing with sufficient detail to tell you
15 exactly. It's just a basic illustration.
16 There isn't enough detail, technical detail
17 here, to conclusively determine whether it's
18 going through any hole at the bottom of 12.

19 Q Well, then, how have you
20 conclusively determined that Clark's tray is
21 top mounted?

22 A Because of the absence of such an

1 **explanation in this patent. It didn't say**
2 **anything is going through anything, so it's**
3 **fully on top.**

4 Q If shaft 72 comes to the bottom of
5 horizontal tray 12 of Clark and connects with
6 the underside of surface 86, is Clark's
7 horizontal tray top mounted in that scenario?

8 MR. KWAK: Objection, vague.

9 THE WITNESS: Can you please refer
10 me to the figure you're looking at?

11 BY MR. JORDAN:

12 Q Take a look at Figure 4B.

13 A **Okay. Can you ask the question**
14 **again now?**

15 Q Follow shaft 72 from the bottom
16 towards the top. Do you see the hole in the
17 bottom of the horizontal tray 12 where the
18 shaft extends through it?

19 A **There is not enough detail to show**
20 **how 72 is connected here because there is no**
21 **bottom view anywhere to show how it's**
22 **connected. It could be a protrusion for a**

1 **different purpose. There's no explanation**
2 **anywhere in the patent.**

3 Q And you've assumed that the shaft 72
4 connects to the bottom of horizontal tray 12,
5 right?

6 A **It is connected to the bottom.**

7 Q How do you know?

8 A **Because there is no other statement**
9 **that would otherwise contradict my**
10 **observation.**

11 Q How do you know it's not going
12 through the hole shown in Figure 4B and
13 connecting to the underside of the surface 86?

14 MR. KWAK: Objection, asked and
15 answered.

16 THE WITNESS: We don't know if
17 that's a hole. It looks like a
18 protrusion. It could be a hole, it could
19 be anything, but nowhere in the patent,
20 there isn't any discussion or emphasis on
21 the function of such feature.

22 Again, we don't know if it's a hole

1 or protrusion or, you know, a division of
2 some sort. I don't know what it is.

3 BY MR. JORDAN:

4 Q Assume it is a hole. Assume it's a
5 hole, and assume that shaft 72 then connects
6 to the bottom side of surface 86.

7 Under those assumptions, is Clark's
8 horizontal tray 12 top mounted to the height
9 adjustment mechanism?

10 A **What's the shape of the hole in your**
11 **opinion?**

12 Q Take a look at Figure 4B at the
13 rectangular shaped hole. It's that shape.

14 A **How do you know it's rectangular?**

15 Q Does the shape affect your answer?

16 A **It's not about the shape. I don't**
17 **know if it's a hole. It doesn't really**
18 **matter. It's irrelevant to this case.**

19 Q If the height adjustment mechanism
20 extends through Clark's tray to the bottom of
21 the surface of 86, that's irrelevant to this
22 case because why?

1 **A** Because the whole thing is sitting
2 on top of the height adjustment mechanism, and
3 there is nothing here to show any compartments
4 that are in front or forward to the height
5 adjustment mechanism to lower the center of
6 gravity and maintain stability of the cart.

7 **Q** I'm not asking about compartments.
8 I'm asking about Clark's horizontal tray 12
9 and what it means to be top mounted.

10 You've told me that being
11 top mounted means it's on top of the height
12 adjustment mechanism, and I'm asking you if
13 shaft 72 extended through a hole in the bottom
14 of horizontal tray 12 into the interior of
15 horizontal tray 12 and connected to the bottom
16 side of surface 86, is Clark's tray 12 then
17 still mounted on top of the height adjustment
18 mechanism?

19 **A** I mean, I would say yes.

20 **Q** Why?

21 **A** There are many engineering
22 considerations to take into account here.

1 For example, if it's a gas piston, then I
2 don't know, where does it end? You know, if
3 it ends at the middle of 72, then, technically
4 speaking, the whole thing -- whether there is
5 a hole or not doesn't matter. It's still on
6 top of the height adjustment mechanism.

7 So it's the installation of the
8 gas piston, the way it's positioned with
9 respect to the base.

10 But looking at all the illustrations
11 and not finding any information, that would go
12 in contradiction to my observation as an
13 expert in this case that the whole thing is
14 mounted on top.

15 Q Doesn't the hole and the shaft
16 protruding through the hole through the bottom
17 of horizontal tray 12 contradict your
18 observation that it's mounted on top?

19 A Again, you're assuming that there is
20 a hole and there is something going through
21 it. Can you show me in the patent description
22 or any other figures showing or discussing

1 **that feature, and why is it important even?**

2 **Can you?**

3 Q I'm just looking at Figure 4B.

4 We're following shaft 72.

5 Would a hole in the bottom of
6 horizontal tray 12 that shaft 72 went through
7 to connect to the bottom of surface 86
8 contradict your observation that Clark's tray
9 is mounted on top of the height adjustment
10 mechanism?

11 MR. KWAK: Objection, asked and
12 answered.

13 THE WITNESS: So I guess I can give
14 you another perspective here.

15 It's highly likely that -- first, it
16 is on top, and it's likely that what you
17 see there, which is unclear, it could be
18 a separate shaft connecting the top and
19 bottom part of 12 to give it rigidity.

20 I mean, it could be so many things.

21 The patent doesn't explain that.

22 So as far as it concerns my

1 observations, I would still stick with my
2 answer that it's sitting fully on top of
3 the height adjustment mechanism.

4 MR. YOUNG: Counsel, we've been
5 letting the objections go, but a few
6 provisions down from the rule about not
7 talking to the witness during
8 cross-examine lists acceptable and not
9 acceptable objections.

10 Objection, vague, is one of them.
11 Asked and answered is also considered
12 leading. Please stop doing it.

13 We were letting it go before, but
14 given the earlier exchange, it has to
15 stop. Please review the rules and use
16 the proper objections.

17 THE WITNESS: I'm sorry, your face
18 was covered by the screen. You were
19 talking to counsel, not to me, right?

20 MR. YOUNG: That's right.

21 I'm sorry for interrupting.

22 THE WITNESS: No problem.

1 MR. JORDAN: Okay. Well, it's just
2 after noon, so I'd suggest we take a
3 lunch break, and then resume after that.

4 Can we go off the record, please?

5 (Lunch break taken at 12:06 p.m.)

6 (Resume at 12:45 p.m.)

7 BY MR. JORDAN:

8 Q Welcome back, Dr. Ben-Tzvi.

9 A **Thank you.**

10 Q You reviewed the Petitions that the
11 Petitioner asserted in these cases, right?

12 A **Yes.**

13 Q I want to ask you about a figure in
14 one of the Petitions. If you can take a look
15 at your binder where the front says
16 Exhibits 15 and 16. It's a different binder
17 than that one.

18 My binder is printed backwards, so
19 what I'd like you to do is turn to the
20 document that says Petition for Inter Partes
21 Review of US Patent Number 8,215,650.

22 A **So it's Exhibit 16? Yeah, okay.**

1 Q You've reviewed this previously,
2 right?

3 A Yes.

4 Q Can you go to page 33, please?
5 You'll see there's an annotated Figure 2B.
6 The Figure 2B comes from Clark.

7 Does that look familiar?

8 A Yes.

9 Q And there's a red rectangle with a
10 label that says "Drawer located under the
11 horizontal tray 12." You see that, right?

12 A Yes.

13 Q Is it fair to say that a drawer in
14 this position shown in this annotated
15 Figure 2B is disposed in the forward
16 projecting portion of a work platform?

17 A **So this is a hypothetical embodiment**
18 **based on a phrase made somewhere in the**
19 **patent, in the specification, about an alleged**
20 **drawer that could be put on top or below, but**
21 **that's not the way a PHOSITA, a person having**
22 **ordinary skill in the art, would make that**

1 **interpretation.**

2 **You know, they would go with the**
3 **same wisdom they used in placing the work**
4 **platform 12 right on top of the height**
5 **adjustment mechanism 22, as a sandwich in**
6 **between, or maybe at the base like Kemnitzer's**
7 **patent '134 did, or the Reeder patent did, in**
8 **a non-adjustable manner.**

9 Q But assume there was a drawer just
10 like this annotated figure shows.

11 Would a drawer located there be
12 located in the portion of the work platform
13 projecting on the forward side of the height
14 adjustment mechanism?

15 A **But that's not what the Clark patent**
16 **explains.**

17 Q I understand your opinion on what
18 you think the Clark patent explains. I'm
19 asking you about this annotated Figure 2B in
20 the Petition.

21 Assuming there's a drawer just shown
22 like in red, would it meet that claim

1 limitation that the drawer is disposed in the
2 portion of the work platform projecting in the
3 forward direction of the height adjustment
4 mechanism?

5 **A To be able to answer this question,**
6 **I would need to see the claim language that**
7 **claims that. Again, I can't attribute the**
8 **validity of any hypothetical in this case**
9 **based on a passing sentence.**

10 **There are so many limitations that**
11 **this needs to meet as described in the**
12 **'650 Patent, like "disposed in," the**
13 **definition of "work platform" versus**
14 **"workstation." You know, things like that.**
15 **So it's really hard to agree with such a broad**
16 **statement.**

17 **Q If that drawer shown in red in**
18 **annotated Figure 2B was screwed in to the**
19 **bottom of tray 12 in the location shown in**
20 **this annotated figure, would it be disposed in**
21 **the work platform?**

22 **A But again, by doing that, you're**

1 modifying something that is supposed to be
2 back in the time. So what you're doing right
3 now is what I call hindsight bias, right?

4 And then you're also basically
5 providing -- in my opinion, it's basically a
6 meritless alleged motivation to modify Clark
7 in such a manner, but that's not the wisdom at
8 that time because, by doing so, you're
9 basically violating the common wisdom at the
10 time, which is keeping the workstation on top
11 and as light and unencumbered as possible.
12 Now you're encumbering it with this alleged
13 drawer that is not explained anywhere in the
14 Clark patent.

15 So I cannot as a PHOSITA -- at the
16 time frame of 2003 and 2004, you know, the
17 common wisdom wasn't there to do that.

18 Q I understand your opinion on the
19 common wisdom at the time. I'm not asking
20 about that. My question is different. It's a
21 hypothetical.

22 Just assume that the drawer is

1 located right where it's shown in annotated
2 Figure 2B on page 33 of the Petition.

3 Assuming the drawer is there, is it
4 in the forward projecting portion of the work
5 platform?

6 A It's just hard for me to go off of a
7 hypothetical without further detail. It's
8 really hard to give you a conclusive answer.

9 Q Is it impossible to give the answer?

10 A It's not that it's impossible. It's
11 like a stretch. Like, you know, you are
12 bringing a prior art, from my experience doing
13 many cases, and you're modifying it in
14 hindsight, right?

15 I don't think it's a fair question
16 by taking that approach, you know, because
17 then you're modifying the whole concept here,
18 the whole idea of knowledge that didn't exist
19 at the time.

20 Because what designers did, like
21 this one, Clark, he's keeping that workstation
22 on top and as light and unencumbered as

1 possible, and this is the sort of -- I have to
2 put myself in that time frame, right?

3 There is a lot of ifs and buts, what
4 if this and what if that in hindsight. I
5 cannot base my answers based on hindsight.

6 Q There's a misunderstanding.

7 I'm not asking you to tell me what a
8 PHOSITA thinks right now, and I'm not asking
9 you to use hindsight. I'm asking you to just
10 assume that the drawer is there. Assume it is
11 there. It doesn't matter how it got there,
12 just assume it is there.

13 Knowing that it's there as shown on
14 this figure, is it in the portion of the work
15 platform that projects in the forward
16 direction from the height adjustment
17 mechanism?

18 A So putting it in the right context,
19 someone would arrive at this solution after
20 they've seen the patents '650 and '668, like
21 others did, by copying after those patents
22 were issued, right?

1 For example, Miller, right, they did
2 the same thing. They used that wisdom later
3 after those patents were published in putting
4 height-adjustable compartments projecting in
5 the forward direction from the height
6 adjustment mechanism.

7 So in that sense, someone who wants
8 to modify Clark after the patents were issued,
9 then I would say that Clark would be
10 infringing in this case by coming up with this
11 solution after those patents were published.

12 Q Dr. Ben-Tzvi, how would you install
13 a drawer at that location on the annotated
14 Figure 2B?

15 MR. KWAK: Objection, form.

16 THE WITNESS: So rewind it back to
17 about 20 years, two decades ago. If I
18 put myself in that time frame, the
19 conventional wisdom was, like Kemnitzer
20 did and Reeder did, they would put a
21 drawer at the bottom to maintain the COG
22 as low as possible, and keeping the

1 workstation sitting on top of the height
2 adjustment mechanism as light and
3 unencumbered as possible.

4 That's the way I would have done it
5 as a PHOSITA at that time frame.

6 BY MR. JORDAN:

7 Q Could you use screws to screw a
8 plastic drawer into the bottom of the work
9 platform as shown in Figure 2B?

10 A Why would I do that?

11 Q Could you do that?

12 A It's not about could, if it's I
13 would. I wouldn't do that.

14 Q I'm not asking if you would.
15 I'm asking if you could.

16 A I wouldn't.

17 Q Is it possible?

18 A It's not possible because you're
19 changing the center of gravity. You're
20 encumbering the top workstation. You're
21 making it heavier, top heavy, so it would
22 topple over, so I would definitely not do

1 **that.**

2 Q What if my plastic drawer was very
3 light, just 2 pounds?

4 A It's not about the weight and the
5 material of the drawer, it's what you put in
6 it, right? You could put a gold bar inside,
7 right, then it would topple over because the
8 COG is already too high.

9 You know, that's why they tried to
10 keep it as light as possible and not put
11 anything other than a surface for a computer
12 and a keyboard at best, then it's not about
13 the material, it's what you put in it, right?

14 Q What if I put a 2-pound plastic
15 drawer with one sheet of paper in it? Would
16 that be unstable?

17 MR. KWAK: Objection, form.

18 THE WITNESS: I mean, unless you're
19 hiding confidential information and it
20 needs to be lockable, I would just put
21 the paper on the surface right there.

22

1 BY MR. JORDAN:

2 Q What if I put a pencil in the
3 drawer, 2-pound plastic drawer, would that be
4 unstable?

5 MR. KWAK: Objection, form.

6 THE WITNESS: Why would you put a
7 pencil in there?

8 BY MR. JORDAN:

9 Q Are you going to answer my question?

10 A I mean, with all due respect, you're
11 creating all these hypotheticals, and you want
12 me to give you answers that are based on
13 detached scenarios from reality of the scope
14 of these products.

15 So you can do anything you want.
16 The question is if it results in a viable,
17 stable, you know, solution, that's the
18 question, and that's what is my guiding
19 principle.

20 Q I'm just asking if you could
21 conceive of a way to put a 2-pound plastic
22 drawer using screws on the bottom of Clark's

1 horizontal work platform as shown in this
2 Figure 2B?

3 A So you're attributing weight to the
4 drawer, right? And then you're saying the
5 drawer, hypothetically speaking, is 2 pounds,
6 right? And the pencil I would say weighed
7 5 grams, up to 5 grams. A piece of paper,
8 depending on the density, would weigh 1 gram,
9 maybe 3 grams, right?

10 But then you're not telling me any
11 information about the weight and the location
12 of the center of gravity of the whole cart.
13 What if the cart weighs -- is made of origami
14 paper, right, and you put 2 pounds, then it's
15 going to topple over.

16 So everything has to be done with
17 respect to some reference. Giving me a drawer
18 that weighs 2 pounds, but then what if the
19 whole thing weighs, you know, 5 ounces, right?
20 So the whole thing is going to become
21 unstable.

22 Q Okay, let me change the

1 hypothetical.

2 Suppose the cart is made of steel
3 and aluminum and weighs 70 pounds, and I want
4 to screw a 2-pound plastic drawer to the
5 bottom of the work platform that's shown in
6 Figure 2B. Is that unstable?

7 MR. KWAK: Objection, form.

8 THE WITNESS: So as a mechanical
9 engineer designing such a cart, I would
10 never allow anyone to design a 70-pound
11 cart, then it doesn't become easily
12 mobile. I don't know what is the shape,
13 the location of the center of gravity.

14 So is it 70 pounds because you're
15 putting like, let's say, a 67-pound
16 battery at the bottom, like your expert
17 stated in his deposition, which was one
18 of the only ways to lower the center of
19 gravity, by putting weight at the bottom,
20 right?

21 So, I mean, these can be taken into
22 so many different scenarios and

1 directions, and you're asking me a vague
2 question, and I have to put that question
3 in the right frame of things so that it
4 makes technical sense. That's my job as
5 an expert.

6 BY MR. JORDAN:

7 Q It's fair to say you could consider
8 all of these things that you are discussing
9 and you could figure it out, right?

10 MR. KWAK: Objection, form.

11 THE WITNESS: Figure out what?

12 BY MR. JORDAN:

13 Q How to install a drawer on the
14 bottom side of Clark's work platform as shown
15 in Figure 2B.

16 A **I went at great length to try to**
17 **explain to you why I wouldn't and why I**
18 **couldn't install a drawer.**

19 **I can go ahead and repeat everything**
20 **I said again if you would like.**

21 Q You mentioned a battery. Tell me
22 about the battery that you just discussed.

1 **A What would you like to know? Do you**
2 **want to ask a specific question?**

3 **Q In your declaration, take a look at**
4 **paragraph 69 of your declaration.**

5 **A Okay, I'm there.**

6 **Q So it spills onto the next page, but**
7 **the very last sentence is discussing**
8 **Mr. Kemnitzer's testimony, and it talks about**
9 **the battery at the base of Clark.**

10 **A Paragraph 67, right?**

11 **Q 69.**

12 **A 69, sorry. Where is the mentioning**
13 **of a battery here?**

14 **Q It spills onto the next page.**

15 You just mentioned the battery. So
16 what can you tell me about the battery at the
17 base of Clark?

18 **A So reading the Clark patent '220, I**
19 **believe. Is it?**

20 **Q The Clark patent ends in 220.**

21 **A I just want to make sure.**

22 **Q Yes.**

1 **A I have all these numbers in my head.**

2 **Q Names like Clark are helpful.**

3 What can you tell me about the
4 battery at the base of Clark?

5 **A So what I remember from reading the**
6 **Clark patent, they talk about the desired**
7 **specifications the battery should have.**

8 So it mentions that it should have a
9 power output of 40 watts. It should be at the
10 capacity of, I believe 36 amp hour -- amp,
11 A-M-P, hour, that's the units of battery
12 capacity. The output voltage should be
13 between 10 to 16 volts, and that the battery
14 has to be an SLA battery. SLA means sealed
15 lead acid battery.

16 So these batteries are an old
17 technology that hasn't changed since the late
18 20th century, basically from, let's say, 1970s
19 to present time, and the technology they use
20 is AGM. AGM stands for absorbent glass mat,
21 or a gel cell technology. So the
22 weight-to-capacity ratio of these batteries is

1 **fairly consistent, proportional.**

2 **So based on what is described in the**
3 **Clark patent, your expert made some mistakes**
4 **in estimating the weight of the battery.**

5 Q You reviewed Mr. Kemnitzer's
6 testimony prior to submitting your declaration
7 in this case, right?

8 A **Yes.**

9 Q Is it fair to say you addressed any
10 disagreements you had with Mr. Kemnitzer's
11 testimony in your declaration?

12 A **Pretty much.**

13 Q Did you consider Clark's battery
14 when you determined that Clark was top heavy?

15 A **I considered the conventional**
16 **wisdom. That's what I considered, right,**
17 **which is keeping those workstations as light**
18 **and unencumbered as possible.**

19 **So you can do whatever you want, put**
20 **drawers at the bottom, heavy batteries at the**
21 **bottom, weights to lower the COG, because that**
22 **wisdom did not exist at that time.**

1 Q But in your analysis, you considered
2 more than conventional wisdom. You considered
3 the references and the Petition too, right?

4 A **Considered the reference in terms of**
5 **what?**

6 Q What they teach.

7 A **They don't teach anything related to**
8 **the '650 or '668 Patent.**

9 Q Clark discloses a battery.

10 A **Yes, at the bottom.**

11 Q And you considered the weight of
12 that battery in your analysis of Clark, right?

13 A **I considered everything. I read the**
14 **patent top to bottom, and what I'm saying here**
15 **is that your expert made mistakes in his**
16 **testimony estimating the battery to be -- in**
17 **one instance he said it's 67 pounds, and in**
18 **another instance he mentioned it's 72 pounds,**
19 **but it doesn't make any sense. He just made a**
20 **mistake, that's what I'm pointing out.**

21 Q Do you think Clark is unstable with
22 that battery at the bottom?

1 A I mean, Clark was designed to be a
2 computer workstation, and I'm hoping -- I
3 mean, from my understanding, that never
4 resulted in a tangible product. It's just a
5 patent. So I never inspected a product to
6 test its stability based on UL 60601
7 Certification of stability of carts.

8 From my understanding, if the
9 product never existed, they were never tested
10 for stability, whilst I know that the '650 and
11 '668 Patents have gone through that UL 60601
12 Certification of stability.

13 So if they were to put a battery at
14 the bottom that is heavy, it's just so that
15 they can reduce the center of gravity, then
16 that's their prerogative.

17 Q Would your opinion change if you
18 thought Clark was a commercially sold cart?

19 A It doesn't matter. I read the
20 patent itself. Based on the patent, the
21 patent doesn't provide any merit for any
22 obviousness in this case.

1 It just follows the conventional
2 wisdom at that time for workstation computers,
3 with the work surface and a tray for the
4 keyboard, and your expert said that the
5 battery at the bottom was heavy enough to even
6 further lower the COG, but there's no way it
7 can be 67 pounds.

8 So if you did the calculation, if I
9 do it in my head, so if the power output is
10 40 watts, and the voltage is between -- it
11 says 12 volts, that's what it mentioned, in a
12 sealed lead acid battery, then a typical
13 12-volt, 7 amp hour battery would weigh about
14 5 pounds, and a typical 12-volt, let's say 17,
15 16 amp hour battery would weigh about, I would
16 say 12 pounds.

17 So if I took into consideration the
18 fact that the technology has been consistent
19 since the 1970s, and by assuming that the
20 batteries have the same power output of
21 40 watts, then taking the equation power
22 equals voltage, V times current I, then the

1 current would be -- 40 divided by 12 is about
2 3.33 amps.

3 And in that case, if I take these
4 cases, both cases, then my estimation, based
5 on proportionality, which will hold in this
6 case, would be that the battery that is
7 36 amp hour would weigh about in between -- I
8 can do the calculations for you -- in between
9 12 to 20 pounds roughly, give or take. So
10 there's no way it could weigh 72 or 67 pounds.

11 Q So if Clark had a 12- to 20-pound
12 battery at the bottom, would it be unstable?

13 MR. KWAK: Objection, form.

14 THE WITNESS: As I already said, I
15 can't say anything about the stability
16 other than the fact that I don't see any
17 test results about the stability of
18 Clark. I don't know if there's a product
19 out there with test results.

20 And the common wisdom at that time
21 was to lower the COG by other means as
22 much as possible by putting batteries at

1 the bottom, or heavy components at the
2 bottom, or weights intentionally at the
3 bottom to lower the center of gravity.

4 BY MR. JORDAN:

5 Q Are you familiar with carts
6 manufactured by Jaco, Inc.?

7 A **Can you spell that for me?**

8 Q J-A-C-O.

9 A **No.**

10 Q Take a look at Clark, please,
11 column 8.

12 A **Clark?**

13 Q The '220 patent. It's in Tab 5 of
14 your binder.

15 A **Oh, Clark, yeah.**

16 Q I'll just direct you to the bottom
17 of column 8 at line 66.

18 A **Column 8?**

19 Q Yes, sir.

20 A **And which line?**

21 Q Starting with line 66, the sentence
22 starts with "For example." I'll read it out

1 here.

2 **A Okay.**

3 Q It says, "For example, the chassis
4 14 may be a model MPC2001 manufactured by
5 JACO, Inc., with the standard tray replaced by
6 the horizontal tray 12 shown in FIG. 1."

7 Have you ever seen or evaluated
8 MPC 2001 manufactured by Jaco, Inc.?

9 **A I didn't evaluate any products in**
10 **this case.**

11 Q Take a look at Tab 11 of your
12 binder, please. I'd like to mark this as
13 Exhibit 1037.

14 (Exhibit 1037 was marked
15 for identification.)

16 BY MR. JORDAN:

17 Q You'll see on the first page it
18 appears to be a catalog titled "Materials
19 Management in Healthcare," and it's dated
20 March 1997.

21 **A Sorry, so sorry. I'm looking at**
22 **Tab 10 by mistake. It's 11. This one?**

1 Q That's not correct.

2 Jim, can I see your binder, please?

3 Tab 11.

4 MR. KWAK: Tab 11 is the same as
5 yours.

6 MR. JORDAN: Yours is right, but
7 that is not correct. Let me ask you to
8 just remove that and use this instead.
9 Just put that in there.

10 BY MR. JORDAN:

11 Q Okay, so back to Tab 11, the first
12 page, you'll see it appears to be a catalog
13 titled "Materials Management in Health Care,"
14 and it's dated March 1997.

15 Do you see that on the first page?

16 A Yes.

17 Q And on the bottom right, you'll see
18 a label that says "ENOVATE EXHIBIT 1002-1."
19 This is a label applied from a different
20 IPR proceeding.

21 Can you please turn to the page with
22 the label ENOVATE EXHIBIT 1102-11?

1 **A So Enovate is the company who holds**
2 **the Miller patent, right?**

3 Q I don't know.

4 **A Which page?**

5 Q If you go to ENOVATE
6 EXHIBIT 1002-11, please.

7 **A Page 11, okay.**

8 Q And you'll see a title at the top of
9 this sheet. It's "MPC 2001 Variable Height
10 P.C. Cart." You see that, right?

11 **A Yes.**

12 Q And at the bottom right, there is a
13 logo for JACO Mobile Cart Division.

14 Do you see that?

15 **A Yes.**

16 Q So would you agree this appears to
17 be a specification sheet for a Jaco brand
18 MPC 2001 mobile cart?

19 **A I would say a very limited one, more**
20 **like a sales brochure than a specification.**

21 Q And this is the chassis specified in
22 Clark at column 8, 66 to 91, right?

1 **A Where does it say that?**

2 Q We can go back to Clark. We read
3 that.

4 **A Oh, yeah, okay. What page was it?**

5 Q So Clark is Tab 5 of your binder,
6 column 8, starting on line 66.

7 **A Okay, yeah. So it says,**
8 **"For example, the chassis 14 may be a model**
9 **MPC2001 manufactured by JACO, Inc."**

10 **Okay, yeah.**

11 Q So looking at the MPC 2001 cart, do
12 you think this cart is unstable?

13 MR. KWAK: Objection, form.

14 THE WITNESS: I don't have enough
15 detail to determine that.

16 BY MR. JORDAN:

17 Q You see it weighs 70 pounds?

18 **A Okay.**

19 Q Does that give you enough
20 information to determine if it's unstable?

21 **A So I'm trying to frame your question**
22 **and put it in the correct context.**

1 **So you're saying if it were to go**
2 **through the UL 60601 Certification, if it**
3 **passed it? I don't have that information. I**
4 **don't know.**

5 Q It's reasonable to assume a
6 commercially sold cart like this would be
7 appropriately certified, right?

8 MR. KWAK: Objection to form.

9 THE WITNESS: Unless it shows that
10 it's certified, I can't say it was
11 certified.

12 BY MR. JORDAN:

13 Q Do you have any reason to doubt that
14 the Jaco MPC 2001 cart doesn't meet stability
15 certifications?

16 A **I don't know what companies prefer**
17 **to do in terms of what certifications they**
18 **want. I don't know.**

19 Q Have you ever encountered a
20 commercial product in your experience that was
21 used in hospital environments that did not
22 meet appropriate UL certifications for

1 stability?

2 A I don't know that. It depends.

3 If I was working at a hospital and I
4 pick a product, I would ask the manufacturer
5 to show me what certifications they had to
6 make a judgment call about what I want to
7 purchase. So I don't know, it depends.

8 Q So you can't tell, sitting here
9 looking at this picture on the figure, whether
10 that cart is stable or not?

11 A As far as it concerns me, by taking
12 into account certain assumptions, for example,
13 saying that it's not moving, it's just
14 stationary there, the wheels are locked, the
15 lady is standing in front of it, looks like a
16 computer workstation that is attached on top
17 of this chassis, you know, I would hope so
18 that it's stable so it doesn't fall on
19 her feet or something.

20 Q Do you see what looks like a
21 cathode-ray tube computer monitor on the top
22 of the cart in that picture?

1 **A I used to own one of these.**

2 **Q How much do you expect that model to**
3 **weigh?**

4 **A It depends on the size, right? I**
5 **don't know.**

6 **Q Can you make an estimate?**

7 **A As far as -- so I can tell you a few**
8 **things here, okay?**

9 **Looking at the figure the way it is,**
10 **I don't know if it's a real rendering or some**
11 **sort of a CAD model that is enhanced in some**
12 **sort.**

13 **This monitor could be, you know, one**
14 **of those fake monitors you put to do brochures**
15 **and things like that. I don't know. I don't**
16 **know what is the size, I don't know the**
17 **dimensions. I can't estimate the weight of**
18 **it.**

19 **Q In your opinion, would a PHOSITA**
20 **think that the cart shown in that picture was**
21 **unstable?**

22 **A Again, unstable in what context? In**

1 terms of tilting the surface underneath and
2 seeing how stable it is? Or just by standing
3 there? I need some context.

4 Q In the context that you used the
5 term "stability" throughout your declaration,
6 use that context.

7 A Yeah. So basically going back to
8 what I've said earlier, a PHOSITA at the time
9 frame of 2003-2004 would design a workstation
10 such as this one, that holds a keyboard and a
11 computer, as light as possible, and put weight
12 at the bottom to reduce the center of gravity,
13 and maybe that's why they put the computer
14 there, the computer itself.

15 But again, I don't have any
16 information about what type of screen model it
17 is, what type of computer, does it have extra
18 hard drives, which makes it heavier, less hard
19 drives, lighter. I don't have enough
20 technical details to give you an accurate
21 answer.

22 Q Clark specifies this chassis, right?

1 **A Clark makes reference to this**
2 **chassis, yes, in line 67 of column 8 in patent**
3 **'220.**

4 Q And Clark also says to add a battery
5 at the bottom of the chassis, right?

6 **A This one, or something else?**

7 Q This is the example chassis in
8 Clark.

9 **A This is not showing a battery.**

10 Q I understand. Clark says to take
11 this chassis and add a battery to the bottom.

12 We agree to that, right?

13 **A No.**

14 Q Why not?

15 **A Where does it say that, that it's**
16 **for this chassis?**

17 Q Okay, I'll read it to you again.

18 **A I'm reading column 8, line 65.**

19 Q Column, line 66, "For example, the
20 chassis 14 may be a model MPC2001 manufactured
21 by JACO, Inc." We're looking at that here in
22 Exhibit 11.

1 **A But there's no word "battery" in**
2 **that sentence. The battery is a separate**
3 **discussion.**

4 Q Figure 4B in Clark, can you take a
5 look at that, please? Clark is Tab 5 of your
6 binder.

7 **A Yes.**

8 Q So there's the callout there to 14,
9 chassis 14, and we agree that's the MPC 2001
10 by Jaco, right?

11 **A Figure 4B, yes, okay.**
12 **What's the question?**

13 Q And then there's a battery added to
14 it that's callout 24.

15 **A That's what it says, battery or**
16 **power unit.**

17 Q There's a battery added to Clark in
18 its disclosure, right?

19 **A Okay.**

20 Q Okay.

21 **A So looking at that figure, by the**
22 **way, now that I remember reading this --**

1 Q Let me interrupt you for a second.

2 A **It looks like there is a button.**

3 Q I want to ask you a question back

4 here on Exhibit 10, please. Go back to

5 Enovate Exhibit 1002-11, the MPC 2001.

6 A **Say it again.**

7 Q Back to the Jaco cart on page 11 of

8 Tab 11 showing the MPC 2001.

9 A **Okay.**

10 Q Suppose we added a drawer under the

11 keyboard tray of this cart in front of the

12 height adjustment mechanism, would that make

13 the cart unstable?

14 MR. KWAK: Objection, form.

15 THE WITNESS: I think you have asked

16 me that question in at least a dozen

17 variations. The answer is the same. I

18 can regurgitate the whole opinion that I

19 have again if you would like.

20 BY MR. JORDAN:

21 Q Can you just answer a

22 yes-or-no question?

1 **A That's not a yes-or-no question,**
2 **I'm sorry. I wish life was like that.**

3 **Q Is it your testimony that it would**
4 **be beyond the ordinary skill of a person of**
5 **ordinary skill in the art to add a drawer to**
6 **the bottom of the keyboard tray shown in the**
7 **MPC 2001 spec sheet in 2003?**

8 **A Again, I don't have -- the only**
9 **information I have in front of me is this**
10 **doesn't look like a specification sheet. It's**
11 **far from that. It looks like a sales**
12 **brochure, and the only information it provides**
13 **is that it weighs 70 pounds.**

14 **There's no any information about the**
15 **width of the base, the location of the center**
16 **of gravity, the weight distribution, the**
17 **dimensions. They hide how high the height**
18 **adjustment mechanism can go up and down. None**
19 **of this information is there. There is no**
20 **certification or any remarks about whether**
21 **it's certified or not.**

22 **This is merely an eye-catching sales**

1 brochure. It's not a specification sheet.

2 That's not what I would consider, as an
3 engineer and a PHOSITA, a specification sheet.
4 So it doesn't provide enough information.

5 Q Do you think one of ordinary skill
6 in the art could have found the information
7 needed to make that determination in 2003?

8 A I mean, a person of ordinary skill
9 in the art, if he's -- you know, he could have
10 gone done a search, if it's available. I
11 don't know if it was available.

12 I mean, sometimes manufacturers,
13 you know, overexaggerate with their claims,
14 but when you get the actual product, you
15 realize that it's sometimes far from reality.
16 That's why when I buy something nowadays, with
17 the common wisdom of nowadays, I go on the
18 internet and find the reviews on the product.

19 So if you could furnish me the
20 reviews of this product, I would read them and
21 give you a more accurate answer in terms of
22 what was the satisfaction level of the

1 customer actually using it, not just by a mere
2 illustration of a nice lady standing in front
3 of it.

4 Q Dr. Ben-Tzvi, you've determined that
5 Clark, in adding a draw under its keyboard
6 tray, would be unstable, right?

7 A Repeat that again.

8 MR. KWAK: Objection, form.

9 BY MR. JORDAN:

10 Q You have determined that adding a
11 drawer under the keyboard tray of Clark would
12 render that combination unstable, right?

13 MR. KWAK: Objection, form.

14 THE WITNESS: I didn't say anything
15 like that. What I was trying to explain
16 to you is that the common wisdom in the
17 time frame of 2003 and 2004 was that
18 these computer workstations, okay, were
19 designed in a way that the workstation is
20 on top of the height adjustment
21 mechanism, so they are as light and
22 unencumbered as possible, and that's it.

1 There is no knowledge of creating
2 those unique new and non-obvious
3 height-adjustable compartments like it
4 was done in the '650 and '668 Patents.

5 BY MR. JORDAN:

6 Q But it's your opinion it was beyond
7 the knowledge, because doing so would make
8 Clark unstable, right?

9 A Well, again, you're saying make
10 Clark unstable. Clark is a patent, not a
11 product, so I don't have information that
12 there is a product that was created by Clark.

13 You're referring to a Jaco chassis.
14 Are you saying that this chassis is based on
15 the Clark patent completely?

16 Q Clark calls out this Jaco device as
17 its chassis.

18 A But chassis is not the whole thing.
19 It's some part of the whole -- it doesn't say
20 anything about what workstation is mounted on
21 top of it, and is there a height-adjustable
22 mechanism or not?

1 **As far as it concerns me, this is**
2 **not even height adjustable. Does it say**
3 **anywhere it's height adjustable?**

4 **Can you help me find that?**

5 Q I can, yes. Take a look at the only
6 paragraph at the top. "Because the MLT 2001
7 can be adjusted to any height between 29" and
8 39", it allows the user to maintain the
9 correct posture when standing or sitting."

10 It's fair to say it's height
11 adjustable, right?

12 A But I don't know if it's like
13 selectively height adjustable. Like does it
14 have a gas piston so you can easily adjust it
15 to any height? Are there holes, predetermined
16 holes and pins, so it's done -- adjusted only
17 once for one person of a certain height? I
18 mean, it doesn't say all these things. It's
19 hard to determine just based on that.

20 Q Look at the next line, "To raise or
21 lower the platform, simply squeeze the
22 handle." Does that help?

1 **A Where is it? Again, I'm seeing this**
2 **document for the first time, so excuse me for**
3 **asking that information. Next line?**

4 **Q Just further down the same page**
5 **under the first picture on the left.**

6 **A Squeeze the handle, okay.**
7 **So what's the question?**

8 **Q The question is, it's fair to say**
9 **it's a height-adjustable chassis, right?**

10 **A Based on what it says here, yeah,**
11 **it's a height-adjustable workstation.**

12 **Q Can you please turn to Tab 6 of your**
13 **binder? Tab 6 bears Exhibit 1006 label, and**
14 **it comes from IPR2023-1274. I'm going to**
15 **refer to this as Reeder.**

16 **Dr. Ben-Tzvi, do you recognize this**
17 **document?**

18 **A Yes, sir.**

19 **Q Fair to say you reviewed it, right?**

20 **A I did.**

21 **Q Can you take a look at Figure 31?**

22 **A Okay.**

1 Q Let me know when you're ready, sir.

2 A I am.

3 Q Does the cart in Figure 31 of Reeder
4 have a higher center of gravity than the cart
5 in the '668 Patent?

6 MR. KWAK: Objection, form.

7 THE WITNESS: I need to know more
8 specifications to be able to determine
9 that.

10 If I had a CAD model of each of
11 those, then I would ask the computer to
12 calculate that for me, and then I would
13 be able to compare.

14 But, you know, it's interesting when
15 I'm looking at Figure 31, I'm glad that
16 you brought this Reeder one up, and
17 Figure 32. I see the contradiction
18 between the two embodiments. So there is
19 two completely different embodiments,
20 right, and that only shows the
21 contradiction between these embodiments.

22 In Figure 32, it shows a case with

1 stationary compartments at the very
2 bottom that are not height adjustable,
3 and there is some sort of a column 412
4 extending from the back of it up and down
5 to adjust the height of the keyboard or
6 computer.

7 Whereas then you see the workstation
8 in Figure 31, again keeping it as light
9 and unencumbered as possible, mounted on
10 top of the height adjustment mechanism.

11 So even then, they didn't have that
12 wisdom to combine these two and create a
13 height-adjustable platform, and this is a
14 patent from 2002. They didn't have that
15 wisdom to do that like the '650 and
16 '668 Patent did by providing this unique,
17 non-obvious height-adjustable compartment
18 right in front of the height adjustment
19 mechanism so that the COG is as low as
20 possible, thereby providing a stable
21 solution, a stable cart.

22 So even the Reeder patent shows that

1 to me by the contradiction of embodiments
2 described in Figures 31 and 32.

3 It's interesting.

4 BY MR. JORDAN:

5 Q Dr. Ben-Tzvi, I didn't ask you any
6 of those questions that you just answered.

7 A I'm sorry.

8 Q I just asked you whether Reeder had
9 a higher center of gravity than the
10 '668 Patent, and I understand your answer to
11 be you can't tell.

12 A If the Reeder has a higher center of
13 gravity than the '650 Patent? That's what
14 you're asking?

15 Q Yes.

16 A I mean, what's the context of the
17 question, because Reeder doesn't have any
18 height-adjustable compartments, so it's not a
19 fair technical comparison.

20 Q It's fair to say Reeder has a
21 height-adjustable tray, right?

22 A A keyboard tray, yes.

1 Q Reeder's wire storage tray 372 moves
2 up and down with the height adjustment
3 mechanism, right?

4 A Oh, you're referring to 372. That's
5 not a compartment. It's some sort of an open
6 tray, and it's not contiguous with a work
7 surface like the way it's required in
8 '650 Patent. It's completely different.

9 Q That wasn't my question.

10 A There's hardly anything you can put
11 there.

12 Q My question was simply Reeder's wire
13 tray 372 moves up and down with the height
14 adjustment mechanism, right?

15 A Potentially, yes.

16 Q Is there an advantage to using a
17 drawer over a tray?

18 A Well, the main point here is that,
19 based on the only view I have of the
20 embodiment shown in Figure 31, it appears to
21 be extending also to the back. So it's not
22 clear to me that tray 372 -- first, it's not a

1 compartment. Second, it's not in front of the
2 height adjustment mechanism. Third, it's not
3 contiguous with the work surface, which makes
4 the nurse or the user bend up and down, up and
5 down.

6 So nothing here that is described in
7 Figure 31 is even close to what's described in
8 the '650 Patent.

9 Q Dr. Ben-Tzvi, please answer my
10 question. I didn't ask you about the
11 '650 Patent.

12 I asked you, is there an advantage
13 to using a drawer over a tray?

14 A In what context?

15 Q Would a PHOSITA consider or
16 recognize any advantages in using a drawer
17 over a tray?

18 A Well, a PHOSITA came up with
19 Figure 32 to use a drawer. They would not use
20 a drawer in the case of Figure 31, but there
21 is a separate embodiment in Figure 32 that
22 uses a drawer, but the drawer is at the

1 bottom, again, because they wanted to maintain
2 the center of gravity as low as possible so it
3 could remain stable.

4 So that was the conventional wisdom,
5 that drawers would be put in a non-adjustable
6 manner at the bottom to maintain the center of
7 gravity as low as possible.

8 Q Would a PHOSITA in 2003 recognize
9 any advantage in using a drawer over a tray?

10 A If there was such example, then I
11 would like to see it. That wisdom did not
12 exist at that time because of considerations
13 of keeping the workstation on top as light and
14 unencumbered.

15 Putting a drawer, as discussed
16 earlier, would encumber the top workstation,
17 and that's why a PHOSITA, or anyone in the
18 prior art, did not propose it.

19 Q Do I understand your testimony
20 correctly that a PHOSITA would not recognize
21 any advantage in using a drawer over a tray?

22 MR. KWAK: Objection, form.

1 THE WITNESS: I don't think I said
2 advantage. A PHOSITA didn't have the
3 conventional wisdom to do what was done
4 in the '650 and '668 Patent.

5 BY MR. JORDAN:

6 Q I'm not asking about the '650 or
7 the '668 Patents. I'm simply comparing the
8 utility of a drawer to a tray.

9 Would a PHOSITA in 2003 recognize
10 any advantages in using a drawer instead of a
11 tray?

12 A I mean, they did provide the
13 embodiment described in Figure 32. It depends
14 on the purpose. In this case, they didn't
15 have the wisdom to combine the two, as you can
16 see.

17 The Reeder patent provides two
18 completely separate embodiments for two
19 different purposes. So one is a workstation
20 for a computer; they don't want to put any
21 drawers. No one would want to put any drawers
22 in what's shown in Figure 31 because then

1 that's going to encumber the workstation and
2 make it unstable potentially.

3 If you want draws, then use the
4 other embodiment in Figure 32, but it's not
5 height adjustable and convenient for a user to
6 use. They would need to bend all the way
7 down, retrieve items, and things of that sort.

8 Q Would a PHOSITA recognize that a
9 drawer provided any advantage over a tray?

10 A I answered the question. That's why
11 they came up with the embodiment described in
12 Figure 32.

13 Q What benefit does a drawer provide
14 that a tray does not?

15 A Again, you are confusing two
16 embodiments trying to combine them in
17 hindsight. I don't think it's a fair thing
18 to do.

19 Again, there is no embodiment that I
20 see that combines 32 and 31, Figures 32 and
21 31. I didn't see anything here.

22 Q I'm not asking if you see a

1 figure that combines these embodiments.

2 I'm asking you, would a PHOSITA
3 recognize an advantage in using a drawer over
4 a tray in any context?

5 A Again, as I said, the conventional
6 wisdom at the time was what you see in
7 Figure 31, unencumbered, lightweight
8 workstation. I don't see any example with a
9 drawer.

10 You're giving hypotheticals, what
11 if, hindsight, et cetera, but I don't see any
12 evidence in any of the prior art cited here
13 that even comes close to the solution that
14 patent '650 and '668 provide.

15 Q I think we've been going about an
16 hour on the record. This is a good time for a
17 break, Dr. Ben-Tzvi.

18 A Sure, yeah.

19 MR. JORDAN: Go off the record.

20 (A break was taken at 1:44 p.m.)

21 (Resume at 1:57 p.m.)

22

1 BY MR. JORDAN:

2 Q Welcome back, Dr. Ben-Tzvi.

3 A Thank you.

4 Q I want to ask you a few questions
5 about stability.

6 Other than the center of gravity,
7 what factors influence the stability of an
8 object?

9 A So of course there is the center of
10 gravity location, right? So if you were to
11 place, let's say a box, on a horizontal
12 surface with a certain weight that said the
13 center of gravity is right at the center of it
14 from a volumetric standpoint, and if you start
15 tilting the surface, right, to a certain tilt
16 angle, when it's horizontal, the force of
17 gravity, mg , is going downwards, right?

18 And as you start tilting it, there's
19 a point where the line of action, or the
20 vector, the center of gravity, coincides with
21 one of the corners, right, let's say the left
22 corner of it. As long as it's in that area,

1 the object remains stable.

2 Once that line passes beyond, let's
3 call it the pivot point, then there is a
4 moment arm, a torque, that would rotate the
5 body and tilt it over. That will make it
6 instable.

7 So there are many ways of changing
8 the COG to widen that tilt angle by making the
9 base wider, putting weights at the bottom, and
10 other solutions.

11 So it's the moment arm, the torque.
12 Rather than the horizontal moment, it's the
13 lever arm that is the distance between the
14 pivot point and the line of action of gravity
15 that would determine instability or stability.

16 Q Can you take a look at paragraph 84
17 of your declaration, please?

18 A Yes.

19 Q So I see here you have Figure 2 that
20 shows two different cars leaning up on their
21 side wheels.

22 A Mm-hmm.

1 Q I just want to make sure I
2 understand this right.

3 So is it fair to say the reason the
4 green car topples over is because, while
5 tilted, the center of gravity falls outside
6 that bottom wheel base to the left?

7 A Yes, because the center of gravity
8 is higher because it's narrower, yes.

9 Q And the black car on the right does
10 not topple over because its center of gravity
11 is inside the wheel base?

12 A No, that's not correct.

13 It does not topple over because the
14 vector of gravity is not beyond that contact
15 point of the left wheel.

16 So the torque created is within the
17 wheel base, whereas the torque created with
18 the green car on the left is outside the wheel
19 base. We also call it the support polygon,
20 P-O-L-Y-G-O-N.

21 Q Did you calculate a tipping angle
22 for the cart shown in the '668 Patent?

1 **A** What I know about the '668 Patent is
2 that the products M38 and 48 went through
3 UL 60601 Certification, and what you do there
4 in those tests is that you tilt the surface up
5 to 10 degrees, and if it doesn't fall over,
6 then it's considered to be certified and
7 stable. That's what I know.

8 I haven't examined the product
9 itself myself yet.

10 **Q** It's fair to say you didn't
11 calculate the tipping angle for Clark, right?

12 **A** So when you say "tipping angle," are
13 you referring to the angle that would
14 unstabilize the platform of the cart, or the
15 car in this case?

16 **Q** You used the word "tipping angle"
17 here in paragraph 85 of your declaration.
18 However you used it there is what I'm
19 referring to.

20 **A** Give me a second.

21 **Q** Okay.

22 **A** Where do you see "tipping angle" on

1 **this page, on page 46 of my declaration?**

2 Q On page 47, there's a large graphic
3 with bold green text that says "Background -
4 Tipping angle."

5 A Oh, you're referring to that page.
6 **I thought you were looking at page 46. Okay.**

7 Q Nope, I'm asking you did you
8 calculate the tipping angle for Clark?

9 A **Tipping angle for Clark, how could**
10 **I? I don't have access to the product. I**
11 **didn't.**

12 Q Did you calculate the tipping angle
13 for Reeder?

14 A **I know that there are -- as far as I**
15 **know, I know that they're not UL certified, so**
16 **I wouldn't know what is the tipping angle that**
17 **would make it unstable.**

18 Q I want to understand something a
19 little bit different. In Figure 2, back to
20 the cars, they're tilted up on their wheels
21 when the ground is flat.

22 Suppose they were flat on the

1 ground.

2 A Mm-hmm, yes.

3 Q Are they unstable when they're flat
4 on the ground?

5 A Hypothetically speaking, if the
6 ground is flat, horizontal, then they should
7 be stable, the cars.

8 Q Can you please turn to Tab 9 of your
9 binder? I'm going to mark this as
10 Exhibit 1038.

11 (Exhibit 1038 was marked
12 for identification.)

13 BY MR. JORDAN:

14 Q I'd like to walk through a
15 hypothetical with you, Dr. Ben-Tzvi.

16 I'd like to consider a scenario
17 where Figure 1 on page 1 depicts a
18 representation of a medical cart, and in this
19 scenario, it has a center of gravity, and that
20 center of gravity is located 18 inches up from
21 the floor. And let's assume that the weight
22 of this cart is 50 pounds.

1 What I'm interested in is a statics
2 problem, where suppose someone is pushing the
3 cart along a handle where that vector F is
4 located, in that direction. And they're
5 pushing this cart along, it's on wheels, and
6 wheel base A hits a small ledge or cable that
7 freezes it.

8 I'm interested in knowing the force
9 that I need to push in order to start the cart
10 to tip over, and so I'd like to calculate
11 that. How would I do that?

12 **A So tip over meaning falling, not**
13 **just by slightly lifting wheel B from the**
14 **ground, right?**

15 Q The minimum force required for it to
16 tip over.

17 **A To tip over meaning it's falling on**
18 **its side?**

19 Q Forward, in the direction of force.

20 **A Again, you're confusing many things**
21 **here. You said that this is a statics**
22 **problem. If it's a statics problem, it means**

1 that you're creating a scenario whereby
2 wheel B, there is an instantaneous point in
3 time where wheel B doesn't touch the ground
4 anymore, meaning that it's slightly lifted.

5 That's completely different than
6 something tipping over and falling, so which
7 part are you referring to?

8 Q Let's consider the scenario where
9 it's slightly lifted.

10 A Okay. Now it's a statics problem.

11 Q Agreed.

12 A Okay.

13 Q Thank you.

14 And so would you agree that we could
15 treat in this scenario wheel base A as a pin
16 connection in a statics problem?

17 A So let's assume that it's pin
18 connected. Yeah, connected to pin, so wheel A
19 is not translating, okay.

20 Q Okay, great.

21 So if I want to calculate the force,
22 F, to cause the cart to tip over, I would sum

1 two moments. I would sum the moment caused by
2 force, F , and its height, 36 inches from the
3 ground shown here, and compare it to the
4 weight of the cart at its center of gravity
5 and its distance from pin connection A, the
6 8 inches.

7 **A Okay.**

8 Q And I have a formula here where I
9 set those moments equal to zero, F times 36
10 minus 50 pounds times 8 inches.

11 Does that formula look correct to
12 you?

13 **A From a statics problem standpoint,**
14 **and assuming wheel B is not touching the**
15 **ground anymore, yes, that's a statics problem.**

16 Some of the moments about the point
17 **equals zero, nothing is moving here, okay.**

18 Q Okay. And wheel B not touching the
19 ground makes sense because it's just the point
20 where it's lifting up, right?

21 **A Yes.**

22 Q Okay. And so solving for F , I get a

1 force of 11.1 pounds. And I have a calculator
2 here, and I would kindly request that you
3 check my math and confirm the force F.

4 A Okay. So we said we assumed it's
5 50 pounds?

6 Q Mm-hmm.

7 A 11.1 pounds, yes.

8 Q Okay. Can you turn to the second
9 page, please? I want to do a similar problem
10 with a cart with slightly different
11 dimensions.

12 Here I have force, F, and it's still
13 at 36 inches. I've raised the center of
14 gravity compared to the first cart from
15 18 inches, now it's 24 inches.

16 A Mm-hmm.

17 Q And I'd like to repeat the problem
18 where we're going to assume A is fixed, and B
19 is just lifting off the ground, and I want to
20 calculate F.

21 So again, I summed the moments equal
22 to zero, and I say F times 36 inches minus

1 50 pounds times 12 inches.

2 Does that formula look correct to
3 you?

4 **A Yes.**

5 Q And solving for F, I get
6 16.7 pounds. Would you kindly check my math
7 and let me know if you agree?

8 **A Yes.**

9 Q Okay. And so the cart in Figure 2
10 has a higher center of gravity than the cart
11 in Figure 1, right?

12 **A Based on your hypothetical figures,**
13 **yes.**

14 Q Okay. And the force required to tip
15 the cart in Figure 2 is more than the force
16 required to tip the cart in Figure 1, correct?

17 **A Based on your distinct embodiments,**
18 **yes.**

19 Q Dr. Ben-Tzvi, that concludes my
20 questions for you today. I'm happy to turn
21 things over to your counsel.

22 **A Oh, awesome.**

1 MR. KWAK: We do not have any
2 redirect. The only thing I would ask is
3 that we can review and sign.

4 That's all I have.

5 (Whereupon, at 2:11 p.m., the taking
6 of the deposition was concluded.

7 Reading and signature were
8 RESERVED.)

9

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

3

4 HOWARD INDUSTRIES, INC.

5 Petitioner,

6 v.

7 CAPSA SOLUTIONS LLC
8 Patent Owner.

9 IPR2023-01274
Patent 7,594,668

10 IPR2023-01275
11 Patent 8,215,650

12 ACKNOWLEDGMENT OF DEPONENT

13 I, PINHAS BEN-TZVI, Ph.D., do hereby
14 acknowledge that I have read and examined pages 1
through 187 of the transcript of my deposition taken
on Friday, July 25, 2024, and that:

15 (Check appropriate box):

16 () the same is a true, correct, and complete
transcription of the answers given by me to the
17 questions therein recorded.

18 (x) Except for the changes noted in the attached
errata sheet, the same is a true, correct and
complete transcription of the answers given by
19 me to the questions therein recorded.

20

21 8/8/2024

22 DATE



SIGNATURE

ERRATA SHEET FOR THE TRANSCRIPT OF:

Caption: Howard Industries, Inc. v. Capsa Solutions LLC
 Deponent: Pinhas Ben-Tzvi, Ph.D.
 Dep. Date: July 26, 2024

I wish to make the following changes for the following reasons:

Pg.	Ln.	Now Reads	Should Read	Reasons Therefore
21	17	them, 38 and 48 cup size	M38 and M48 CAPSA	Typographical error
24	13	PT	PET	Typographical error
25	3	weight	weights	Typographical error
25	20	water	wire	Typographical error
26	14	thermoset	Thermosets	Typographical error
32	1	simple	symbol	Typographical error
34	5	them	this	Typographical error
38	12	is	are	Typographical error
48	12	what	why	Typographical error
49	21	to	with	Typographical error
63	8	He chose	It shows	Typographical error
92	1	values	volumes	Typographical error
184	16	Some	Sum	Typographical error

Pinhas Ben-Tzvi Digitally signed by Pinhas Ben-Tzvi
Date: 2024.08.07 10:40:44 -04'00'

SIGNATURE OF THE WITNESS

this 7th day of August, 2024.

ERRATA SHEET FOR THE TRANSCRIPT OF:

Caption: Howard Industries, Inc. v. Capsa Solutions LLC

Deponent: Pinhas Ben-Tzvi, Ph.D.

Dep. Date: July 26, 2024

I wish to make the following changes for the following reasons:

[illegible]

Pinhas Ben-Tzvi Digitally signed by Pinhas Ben-Tzvi
Date: 2024.08.08 13:56:56 +04'00'

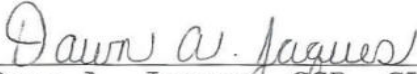
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Date: 2024.08.08 13:56:56 +04'00'

SIGNATURE OF THE WITNESS

this 8th day of August, 2024.

1 CERTIFICATE OF NOTARY PUBLIC

2 I, DAWN A. JAQUES, a Notary Public in and for
3 the Commonwealth of Virginia, before whom the
4 foregoing deposition was taken, do hereby certify
5 that witness whose testimony appears in the
6 foregoing pages was duly sworn by me; that the
7 testimony of said witness was taken by me in
8 shorthand at the time and place mentioned in the
9 caption hereof and thereafter reduced to typewriting
10 under my supervision; that said deposition is a true
11 record of the testimony given by said witness; that
12 I am neither counsel for, related to, nor employed
13 by any of the parties to the action in which this
14 deposition is taken; and, further, that I am not a
15 relative or employee of any attorney or counsel
16 employed by the parties thereto, nor financially or
17 otherwise interested in the outcome of the actions.

18 
19 Dawn A. Jaques, CSR, CLR
Notary Public in and for
Commonwealth of Virginia

20 My commission expires:

21 August 31, 2027

22 Registration No. 132328

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