In The Matter Of:

LifeCORE Fitness, Inc. v.

Woodway USA, Inc.

Robert Giachetti, Ph.D., P.E.

January 10, 2024

Patent No. 9,039,580

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

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LIFECORE FITNESS, INC. d/b/a ASSAULT FITNESS,

Petitioner,

v.

WOODWAY USA, INC.

Patent Owner.

IPR023-00836

U.S. Patent No. 9,039,580

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January 10, 2024
2:04 p.m.

The deposition of ROBERT GIACHETTI, Ph.D., P.E., called as a witness herein for examination, taken pursuant to the rules of the United States Patent and Trademark Office before JENNIFER L. BERNIER, a Certified Stenographic Reporter of the State of Illinois, CSR License No. 084-004190, Registered Merit Reporter and Certified Realtime Reporter, at Foley & Lardner LLP, 321 North Clark Street, Suite 3000, Chicago, Illinois.

A P P E A R A N C E S

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ROBERT GIACHETTI, Ph.D., P.E. JANUARY 10, 2024

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ROBERT GIACHETTI, Ph.D., P.E. JANUARY 10, 2024

E X H I B I T S

Exhibits 1001 through 1030 were premarked and retained by counsel.

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1 P R O C E E D I N G S
2 JANUARY 10, 2024
3 - o0o -
4 (Deposition Exhibits 1001 through
5 1030 were premarked for identification.)
6 (Witness sworn.)
7 WHEREUPON:
8 ROBERT S. GIACHETTI, Ph.D., P.E.,
9 called as a witness herein, having been
10 first duly sworn, was examined and
11 testified as follows:
12 EXAMINATION
13 BY MS. RIEGER:
14 Q. Welcome back, Dr. Giachetti.
15 During the break, did you discuss your
16 testimony with Mr. Turner at all?
17 A. No.
18 Q. I've got a new set of binders in front
19 of you. If you could open Binder 2 to Exhibit
20 1003 -- or, sorry -- Binder 1 to Exhibit 1003.
21 A. Okay.
22 Q. Do you recognize that document?
23 A. Yeah. It looks like my declaration in
24 this matter for the '580 patent, and that looks
25 like my signature on the last page.

1 Q. And did you review the declaration for
2 completeness and accuracy before you signed it?
3 A. Yes.
4 Q. And similar to the other declarations
5 in the other matters, does this declaration
6 reflect all of the opinions that you reached in
7 connection with the '580 IPR?
8 A. I think so.
9 Q. So in your declaration, if we go to
10 page 180, starting on this page in the bold text,
11 you discuss two elements that you call elements
12 1.4 and 1.5.
13 Do you see that?
14 A. I see that.
15 Q. And those elements recite "a first
16 bearing rail having a plurality of bearings, the
17 first bearing rail attached to a left side of the
18 frame," and a second bearing rail having a
19 plurality of bearings, the second bearing rail
20 attached to a right side of the frame. End quote.
21 Did I read that correctly?
22 A. I think you did.
23 Q. If you go ahead to paragraph 350, you
24 state that Socwell discloses a cover member 168
25 bearing rail that supports the belt securing

1 assemblies 94 including the rollers 98 bearings
2 and attaches to the frame 12 using bolts 118.
3 Do you see that?
4 A. I see that.
5 Q. Am I correct in interpreting paragraph
6 350 to mean that you are identifying Socwell's
7 cover members 168 as meeting the bearing rail
8 limitations in elements 1.4 and 1.5?
9 A. I think the bearing rail limitation
10 is -- is covered by the cover member, yes, because
11 it holds the roller bearings and the deck bearing.
12 Q. Okay. So you said that the cover
13 member 168 holds the deck bearing. That's not
14 referenced in this specific paragraph, right?
15 A. I believe it's in one of the
16 subsequent paragraphs.
17 Q. Well, let's look at paragraph 356. In
18 that paragraph, you state -- that's on page 192.
19 A. Okay.
20 Q. In that paragraph, you state: As
21 explained for claims 1.4 and 1.5, the cover
22 members 168 bearing rails are mounted to the frame
23 and support the deck 56 and rollers 98.
24 Is that what you were thinking of?
25 A. That and I believe we show that in

1 the -- the graphic on page 187 and also discuss
2 that in paragraph 351.
3 Q. All right. Well, looking at that
4 graphic on page 187, which is under that
5 paragraph 350, can you explain to me exactly how
6 the cover member 168 supports the deck 56?
7 A. Yeah. So the cover member is fastened
8 to the frame in that fastening action as we
9 describe here in 351. That fastener goes through
10 the deck, and the two of those things together are
11 the plurality of bearings.
12 Q. How does simply being fastened to the
13 cover member mean that the deck is supported by
14 the cover member?
15 A. Right. So it's used to attach the
16 deck to the frame.
17 Q. The cover member is?
18 A. Yes.
19 Q. How so?
20 A. By the bolt.
21 Q. Wouldn't the bolts connect the deck to
22 the frame in that case?
23 A. It's like a sandwich. So the bolt,
24 which is the cover member, and it all holds
25 everything together.

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Q. So is it your opinion that anything connected to that cover member is supported by the cover member?
A. I don't know if I have an opinion on that.
Q. Is the frame supported by the cover member?
A. No. I think a frame is the thing that is providing support to the device.
Q. Why is the frame not also supporting the deck versus the cover member supporting the deck?
A. Well, without the cover member to hold everything down, you would have to find some other way of keeping the deck in place. And so in this one, it's all the -- it's all an assembly.
Q. If you look at that paragraph cited in paragraph 351 -- or I should say that excerpt from Socwell, you quote Socwell as saying: Alternatively, the bolt 118 may be disposed through an aperture 116 formed in a support rib 54 which may further serve to secure the support rib 54 to the support frame.
Did I read that right?
A. That was on page 188?

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Q. Yes.
A. That sounds about right.
Q. Why is it the case that that support rib 54 is not what supports the deck versus the cover member supporting the deck?
A. The deck would not have the curved shape without -- without the cover member and without the cover member providing the support for it.
Q. The cover member is positioned above the deck, correct?
A. That's right.
Q. How is the cover member supporting the deck in order to -- withdrawn.
How is something that is positioned above the deck supporting the deck?
A. Right. So as I just said, if you don't put it together this way, then the deck would not take the curved shape that it has. And so that's why it's supporting.
Q. The deck is a -- is a single structure, correct?
A. I would say that it's a single piece.
Q. Is it flexible or is it rigid?
A. I believe that it is flexible.

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Q. The deck is flexible?
A. Well, that's why you need the crossmembers underneath it.
Q. Which crossmembers are you referring to?
A. Support rib 54.
Q. You testified that the cover members hold the deck in a curved formation. Isn't it the belt that those are designed to hold in a particular shape?
A. Well, you can see from Figure 5 that we cite above paragraph 351 that the whole thing is sandwiched together. So the cover member, when you bolt it down, will smash the running belt to the deck; and then as you tighten it down, it will smash the deck into the crossmember there. And so it will enforce the curvature on the deck and the belt at the same time.
Q. Please go to Socwell, specifically to column 8. And Socwell is going to be Exhibit 1011.
Looking at -- it looks like line 8 on -- just let me know when you get there. I don't want to jump the gun.
A. Just give me one second.

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Q. Sure.
A. Okay. Where were we?
Q. Column 8 --
A. Column 8, okay.
Q. -- which is on page 15. In that second -- that first full paragraph, which starts around line 8, it states: "In a preferred construction, the deck 56 is formed of a substantially sturdy, rigid material to provide sufficient structural integrity to adequately support the weight of a user exercising on the curved deck treadmill 10."
Did I read that correctly?
A. You did.
Q. To your knowledge, did Socwell disclose any deck that is not made of a, quote, sturdy, rigid material?
A. Well, it discusses, in other locations, sturdy, rigid materials for the support ribs. And it also mentions that you could also use things like fiberglass and graphite or things like that to use like plastics as well.
Q. Are any of those not sturdy, rigid materials?
A. Some -- some plastics are sturdier

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than others. But again, I'll point out that if -- there is a difference between a sturdy, rigid material and a sturdy, rigid element of -- of something made out of that material.

So piggybacking on what I said earlier, if the deck is rigid, then you wouldn't need anything to support it from underneath against the load. So the fact that this is talking about a sturdy, rigid material for the deck and a sturdy, rigid material for the support ribs doesn't necessarily mean that the deck, itself, is rigid or that the -- the support ribs are, themselves, rigid as an element, but that it's a tough material. A rigid and sturdy material is used to construct them.

Q. Are you aware of anything in Socwell that describes the -- either the rollers or cover members 168 as being the reason that the deck is in an arced or curved shape?

A. Yeah, I don't recall that it mentions that.

Q. You described previously the rollers or the cover members 168 supporting other structures because they held them in a curved configuration, correct?

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A. Correct.

Q. Can you explain to me why holding something in a curved configuration means supporting that thing?

A. Sure. Because it's a -- it's something that applies a force to maintain a shape of another element. For example, in structures there is something called a buttress; and I think people would recognize that that is a support, but the buttress comes at something from the side, for example, or keeps a wall from falling down.

But it doesn't necessarily provide upward force, so -- but it's there to keep that wall from falling. So it's enforcing the shape of the wall by applying a force to it. So that's the basis of what I'm considering.

So the cover member is applying a force to the belt and the deck to maintain it -- maintain both of those things in a curved shape.

Q. So is it your opinion that the term support simply refers to the application of force on another object?

A. No. That's not what I said.

Q. Then how would you define the word "support"?

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A. Because it's a force that maintains something's shape or position in that thing. So, for example, in the '580 patent, it talks about supports and support structures and supports all over the place; but it doesn't always discuss them in a vertical meaning. I believe there is a support inside the safety device that is not vertical at all.

Q. So if Object A is holding down Object B, it is your opinion that Object A is supporting Object B?

MR. TURNER: Objection. Form.

A. Again, I had a nuance in my description of the word support, which was that it enforces a shape of something or a position of something so that it performs its task.

So the cover member is enforcing the shape of the belt and the deck along the lines of my buttress example, which is something coming at a wall from the side.

(Exit Ms. Jelenchick.)

MS. RIEGER: Let's go off the record for just one moment because I think I've misplaced an exhibit.

THE WITNESS: Okay.

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(Recess had.)

(Enter Ms. Jelenchick.)

BY MS. RIEGER:

Q. Sorry about that. I am going to hand you what has been previously marked as Exhibit 2008. If you could turn to -- well, first and foremost, do you recognize this document?

A. It looks like my opening report from 2017.

Q. If you turn to page 9 starting at paragraph 21, you offer some opinions on the meaning of the word support as used "throughout Bayerlein 169 and Bayerlein 580."

Do you understand Bayerlein 580 to be the '580 patent at issue in this litigation -- or inter partes review?

A. Yes.

Q. If you could just look at those paragraphs 21, 22, and 23 -- and 24, is there anything in these paragraphs related to support, meaning helping to maintain the shape of an object?

A. Right. These paragraphs are describing the inconsistent use of the word support in the '580 patent, but it does not

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1 mention an alternative construction of the word
2 support.
3 Q. How was the use of the word support in
4 the '580 patent inconsistent?
5 A. So as I outlined here, if you want to
6 use a plain meaning of support for indicating
7 weight-bearing or vertical force capability,
8 that's what's stated in this report on -- in
9 paragraph 21. There is a little bit of a
10 disparity in terms of common and plain usage.
11 Again, like I mentioned the word "buttress," which
12 everyone would understand is support, doesn't
13 necessarily provide vertical force capability; but
14 nonetheless, it is considered a support.
15 However, that notwithstanding,
16 paragraph 22 lays out a number of different places
17 where the word support is used in an indefinite
18 chain of pieces where one thing could support
19 another through any number of intermediaries.
20 And there are other instances here --
21 for example, in the stud 1520 -- which I recall
22 does not provide force at all but keeps things in
23 place.
24 Q. So it's fair to say that in the prior
25 litigation, it was your opinion that as the term

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1 support is used in the '580 patent, support did
2 not require any sort of maintenance of shape; is
3 that right?
4 A. I think the opinions that I just --
5 not necessarily the opinion outlined there, but
6 what I was pointing out there is the usage of the
7 word support basically indicated one element
8 applying force to another and -- but I didn't make
9 anything about -- I didn't make any sort of
10 comments about shape.
11 But certainly in there, it shows that
12 those forces are applied to keep something in
13 place.
14 Q. Is there any reason you can think of
15 of why the definition of support in the '580
16 patent today would be different from the
17 definition of support in the '580 patent in 2017?
18 MR. TURNER: Objection to form.
19 A. Well, I don't recall, in that
20 litigation, if the word support ended up being
21 construed by the Court. However, today, I
22 would -- I would make similar arguments that the
23 word support in the '580 does not restrict it to
24 vertical forces at all.
25 Q. Is there anything in the '580 that

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1 suggests that support needs to confer some sort of
2 shape retention?
3 A. I don't recall off the top of my head
4 if that is in there, but it certainly describes
5 enforcing locations of particular pieces or
6 portions of pieces.
7 Q. If you look at paragraph 23 of this
8 Exhibit 2008, you state there: "To a POSITA --
9 And you understand a POSITA to be the
10 same thing as a POSA?
11 A. Yes.
12 Q. -- "To a POSITA, support can be
13 achieved by various structural elements. For
14 example, one may support a machine element by
15 welding it to the side of another element, bolting
16 it to the underside of another machine element,
17 laying it on top of a machine element, coupling it
18 to another machine element, placing the machine
19 element on the floor, and so on."
20 Did I read that first sentence
21 correctly?
22 A. I think that was two sentences, but
23 yeah.
24 Q. You're right. That is two sentences,
25 but yes.

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1 Did you mention anything about
2 retention of shape in that definition of support?
3 A. No. But again, I'm -- the last
4 sentence in that paragraph, basically I'm using
5 that as a descriptive portion to explain why the
6 word support in the '580 is very broad.
7 Q. You said support in the '580 is very
8 broad, correct?
9 A. Right.
10 Q. Okay. Let's shift gears a little bit.
11 Let's go back to your binder, specifically to
12 Exhibit 1013. Do you recognize this document?
13 A. Yes, I do.
14 Q. And this is U.S. Patent No. 3,637,206,
15 which lists Chickering as an inventor; is that
16 right?
17 A. That's right.
18 Q. If I call this Chickering, will you
19 understand what I'm talking about?
20 A. Yes.
21 Q. Did you read Chickering in its
22 entirety before your report was drafted?
23 A. Yes.
24 Q. Does Chickering disclose a curved
25 running surface?

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A. Yes.
Q. How so?
A. It depicts it in Figure 3.
Q. If we look at Figure 3 -- well, actually no. If we look at Figure 2, you'll agree with me that Figure 2 shows a device with two sets of rollers that are each arranged in a plane? Does that sound right?
A. I don't know that I would agree with that because they're not in the same -- they do not have the same plane.
Q. Well, I didn't say in the same plane. I said two sets of rollers, each arranged in a plane.
A. Sure, in the -- in their own plane, I'll say.
Q. Yeah. And in Figure 3, are there not also two sets of rollers arranged in two different planes?
A. Well, I don't know necessarily if just looking at that photo, you would -- you could say that. Because you could split it up and do a number of different -- different sets of rollers there.
If you wanted to break it into two

Page 22

pieces, you might be able to make that -- that claim. But then again, it depends on what you're looking at. So if you're looking at the center points of those, the front and rear are anchored at different locations. And if -- or say you took them in pairs of two, you would find three planes there. So there are a number of different ways to review Figure 3.
Q. If you look at -- I guess it starts at the bottom of column 2 around line 73. And this is going to continue on to the next page, just for -- for heads-up purposes.
A. Sure.
Q. Chickering says, quote: An alternate form of the exercising device of the present invention is shown in Fig 3, wherein a single endless belt 28 forms both the accelerating and decelerating areas. In the device shown in Fig 3, a single series of rollers are provided journaled in the sidewalls 22 of the base 10. However, the rollers are so disposed that the forward rollers lie approximately in a plane slanting downwardly from the front of the base, while the rear rollers lie approximately in a plane slanting upward toward the rear of the base.

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Did I read that correctly?
A. You did.
Q. So Chickering, itself, describes Figure 3 as two sets of rollers, the forward rollers and the rear rollers, each of which lie in their own plane; is that right?
A. I don't know that I agree with that here because it calls them a single series of rollers. So it's just describing the forward section and the rearward section of that single series of rollers.
Q. Does Chickering say the forward rollers lie approximately in a plane slanting downwardly from the front of the base?
A. It does.
Q. Does Chickering say the rear rollers lie approximately in a plane slanting upward toward the rear of the base 10?
A. It does.
Q. So even if it describes that as a single series of rollers 29, it is describing two subsets of rollers, each lying in different planes. Is that accurate?
A. I think that's -- that is accurate. It does describe it as a single group of rollers

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that it then, for descriptive purposes, describes as front and rear.
Q. Do two linear or planar sections equate a curve?
A. Can you state that again?
Q. Do two linear or planer sections equate to a curve?
A. Can you be more specific with the context of what you're asking about?
Q. If you have two intersecting planes, does the point where they meet equate to a curve?
A. So if you're speaking in abstract mathematical terms, those planes would meet at a line in the abstract mathematical world.
Q. So if we look at your declaration, Exhibit 1003, at paragraph 151, which breaks across pages 86 and 87, you state, in this paragraph 151, that Chickering's left front support arm 14 and left rear support arm 19, as illustrated in Figure 2, collectively satisfy the first bearing rail plane of the limitation; is that right?
A. That's right.
Q. Okay. And then if you skip ahead to paragraph 158, which is going to break across

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1 pages 89 and 90, you similarly state that
2 Chickering's right front support arm 14 and right
3 rear support arm 19 collectively satisfied the
4 second bearing rail claim limitation; is that
5 correct?
6 A. That's correct.
7 Q. Are any of the support arms you
8 reference in those paragraphs curved?
9 A. Well, if we're talking about them
10 collectively, we go from one angle to another
11 angle. So there must be a change in angle between
12 them.
13 Q. Does a change in angle equate to a
14 curve?
15 A. I would restate that as a change in
16 inclination. And I think in the context of -- of
17 Chickering, that it would.
18 Q. Looking at Figure 1, which you've
19 annotated in paragraph 158, you identify the
20 second bearing rail in blue. Both of those are
21 straight, correct?
22 A. So I'm looking at those collectively.
23 And together, they're not straight; but
24 individually on their own, they would be.
25 Q. Does any component of what you call a

Page 26

1 second bearing rail actually have a structure that
2 is curved?
3 A. Can you repeat that question?
4 Q. I'll rephrase.
5 Is there any structural component of
6 the second bearing rail that is curved?
7 A. Well, what we're calling as a second
8 bearing rail is both of those pieces which have
9 different inclinations; and I can certainly fit a
10 polynomial through them, so I would say that they
11 collectively are curved.
12 Q. You say you could fit a polynomial
13 through them. What do you mean by that?
14 A. So I could come up with an equation
15 that would generate a line, if you're looking at
16 the side of this, that would pass through line
17 both of -- or pass through the plurality of
18 bearings and the second bearing rail.
19 Q. There is no structure here that
20 actually connects the lines between those two
21 portions of the bearing rail, is there?
22 A. Yeah. 22.
23 Q. What's 22?
24 A. 22 is the frame of Chickering, I
25 believe.

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1 Q. Is the frame curved in any way?
2 A. No. But it provides that connection
3 that you were asking about.
4 Q. So there is no structure connecting
5 the two segments that you say form the second
6 bearing rail that is curved. Is that accurate?
7 A. No. I just said the opposite of that.
8 Q. What is curved that connects these two
9 bearing rails structurally?
10 A. Oh, the second bearing rail limitation
11 that's curved is met by the two of them together,
12 which is what I'm saying. And their connection
13 point is via the frame.
14 Q. But my question was: There is no --
15 can you --
16 My question was whether there was any
17 structural component that connected these two
18 portions of what you say makes up the bearing
19 rail, the second bearing rail --
20 A. And I --
21 Q. -- that is, itself, curved.
22 A. Oh, then I don't --
23 Q. Is there --
24 A. -- I don't see one.
25 Q. Yeah.

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1 Is the second bearing rail
2 structurally the same as the first bearing rail,
3 just on the other side of the device?
4 A. For the most part, it's a mirror image
5 in here. There might be some slight differences
6 around 15 and 26; but I think, by and large,
7 they're mirror images of one another.
8 Q. You're not aware of anything specific
9 that would be different between the two, apart
10 from their being mirrored?
11 A. I don't recall anything outside of
12 what we've mentioned already.
13 Q. So the first bearing rail and the
14 second bearing rail have the same shape,
15 essentially, correct?
16 A. When viewed from the side, yeah.
17 Q. Right.
18 All right. Let's look at
19 paragraphs 153 and 154, which 153 starts on
20 page 87. Would you agree with me that in these
21 two paragraphs, you are arguing in favor of
22 modifying Chickering's single-belt treadmill
23 embodiment to add the support arms of Chickering's
24 dual-belts embodiment?
25 A. Yes. For adjustment of the -- of the

Page 29

1 curvature.
2 Q. And why would a POSA think that the
3 existing arrangement of components in Chickering's
4 single-belt embodiment wouldn't be sufficient
5 as-is?
6 A. Well, this is if the POSA wants to use
7 the single belt.
8 Q. I understand. I'm asking why a POSA
9 wouldn't find the existing single belt's
10 embodiment disclosed in Chickering to be
11 sufficient as-is.
12 Why would they need to modify it?
13 A. So this is to adjust the curvature
14 relative to gravity to -- so that a user would
15 have more adjustability in terms of their
16 preference for that curvature.
17 Q. Can you please look at column 3 of
18 Chickering? Again, that's 1013, Exhibit 1013.
19 Approximately around line 19,
20 Chickering states, quote: While the present
21 invention can be embodied in an exercise device
22 having either one or two endless belts, the
23 two-belt form may be preferable for several
24 reasons.
25 And then it provides a few different

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1 reasons why the one belt is different from the
2 two-belt design. Do you see that?
3 A. I see that.
4 Q. Given Chickering's expressed
5 disclosure of how the two-belt design is superior
6 to the one-belt design, why would a POSA be
7 motivated to use the one-belt design at all?
8 A. Well, it says preferable. But it also
9 describes that you can use a heavier single belt
10 which might have other benefits to it. Maybe you
11 don't want a large flywheel on the side; so
12 instead, you can reduce the size of a flywheel by
13 making the belt heavier.
14 Or the belt gives other properties
15 that you're interested in; for example, sound
16 deadening. Those are considerations that you
17 might want to use a single-belt treadmill for.
18 Q. You're referring to that preceding
19 paragraph in column 3, starting around line 11,
20 correct?
21 A. No. I'm talking about line, roughly,
22 21 where it says: The one-belt model requires a
23 fairly heavy belt since the belt must be in
24 contact with the rollers due to its weight alone.
25 So you're going to have a heavier belt

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1 that might be, for example, quieter and might
2 reduce the need for a large flywheel. So...
3 Q. So that line that you just read says
4 that the one-belt model requires a fairly heavy
5 belt, right?
6 A. That's right.
7 Q. There is nothing in there to say that
8 the two-belt design couldn't use a heavier belt,
9 is there?
10 A. Well, that would be contrary to why
11 the two-belt has potential -- why it potentially
12 may be preferable to use. And the first thing
13 that they say is that you can use lighter weight
14 belts because you can make it -- you can tension
15 it.
16 Whereas, the heavy belt, you don't
17 have any gaps between the two belts. And I would
18 say, from a safety perspective, that would also be
19 something that would make me hesitate putting two
20 belts together where you could trap a finger or
21 something like that in between them.
22 Q. So it says: With the two-belt model,
23 the belts may be under tension and a much lighter
24 and less expensive belt may be used with
25 satisfactory results.

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1 That doesn't indicate that a lighter
2 belt must be used for a two-belt design, does it?
3 A. No. But that just explains why you
4 would pick the double belt versus a single belt.
5 Q. Does Chickering include other
6 disclosures about why the two-belt design is
7 preferable to a one-belt design, just overall?
8 A. Yeah. It basically says that you can
9 get different speeds between the front belt and
10 the rear belt.
11 Q. Those features aren't dependent on the
12 weight of the belt, are they?
13 A. No.
14 Q. So let's go to paragraph 169 of your
15 declaration. Or actually, before we do that,
16 let's go back to Chickering for a moment. I
17 apologize.
18 If we look at column 1 of Chickering,
19 again, Exhibit 1013, in this section, Chickering
20 is discussing Schmidt, a reference called Schmidt.
21 Do you know if that's the same Schmidt that you
22 have referred to previously during your
23 deposition?
24 A. It appears to be the same Schmidt. In
25 the paragraph before, it states it's from January

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of 1917; and that's the Schmidt that I'm familiar with.
Q. All right. In discussing Schmidt, starting around line 30, Chickering says: A person exercising on this type of treadmill is likely to lose his balance because the frictionless surface offers no resistance to the movement of his feet, and he is therefore unable to obtain the leverage necessary for proper balance.
Also, the user is likely to run off the lower end of the treadmill because the faster he runs, the faster the belt accelerates and moves beneath his feet, causing him -- carrying him to the rear. Thus, some external support is necessary to enable the user of such treadmills to maintain his balance, as well as his position on the moving belts.
Do you see that?
A. I'm sorry. I was still looking for where you were reading from.
Q. Oh, I'm sorry.
A. I didn't want to interrupt you.
Q. This is just in -- in column 1, starting around line 30 and then just through the

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end of the paragraph.
A. Okay. I see where you were reading from.
Q. And in the next paragraph starting around line 40, it states -- Chickering states: It is a principal object of this invention to provide a treadmill-type exercising device which removes the necessity for external support means for the user.
Do you see that?
A. I see that.
Q. Would you agree with me that Chickering -- the invention disclosed in Chickering aims to meet that objective by having this dual-plane surface where one plane is for acceleration and another plane is for deceleration?
A. Well, I think that Chickering wants that angled-up rear so that you can push forward. The deceleration is helpful; but pushing forward is at -- you know, the talking about the frictionless rollers and rolling off the back, those are in a relationship to Wood and Morairty.
And I don't recall off the top of my head what Wood is, but I believe Morairty is

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basically just a ramp with -- with rolling elements on it. And the first sentence of that paragraph was, Schmidt describes handles because Schmidt had too much friction, according to the -- according to Chickering.
The shape with an incline in the front and an incline in the rear with the center being lower certainly is something that's been established in a lot of art, which is useful for keeping a person positioned on the treadmill while using it.
Q. What is the title of Chickering?
A. Endless belt exerciser with accelerating and decelerating tread surfaces.
Q. If you look at column 2, starting around line 27, Chickering describes the relative inclinations of the first and second series of rollers.
And then starting around line 31, it states: In the operation of the exercising device, the first and second series of rollers 13 and 18, respectively, will be so disposed that the first tread surface 16a will provide an accelerating area inclined downwardly from the front of the base 10, while the second tread

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surface 25a provides a decelerating area inclined upwardly toward the rear base [sic] of base 10. The upwardly sloping decelerating area offers enough resistance to the user's foot to enable him to maintain his balance and position on the exercising device.
Did I read that correctly?
A. You did.
Q. Does that mention anything about pushing off of the rear portion of the device?
A. Well, it does offer enough resistance to the user's foot to enable him to maintain his balance. So I would interpret that as something that allows you to push forward on it, you know.
And down further in column 2, it mentions that when a person uses the exercise device, that their foot moves in an approximate arc and that they are -- their foot is in contact with the rear surface while it's at the back of the treadmill --
Q. In that --
A. -- and that the upward slope only absorbs some of the momentum of the foot and, due to the upward inclination, will support -- quote: Will support a forward component of force which

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1 enables the person using the exercise device to,
2 quote, push off against the surface 25a at the end
3 of each step.
4 And that's around line 65.
5 Q. Further down in that same paragraph in
6 that column 2, specifically at -- starting at
7 line 67, it looks like Chickering states: "These
8 combined decelerating and forward force-supporting
9 characteristics of surface 25a enable a user of
10 the device to both overcome the rearward motion
11 and momentum imparted to his body during the first
12 part of each step, and also to gain enough forward
13 push to maintain his balance and position."
14 Wouldn't you agree that that indicates
15 that having a decelerating portion is a key
16 component of the Chickering invention?
17 A. Chickering describes it as
18 advantageous. The incline there which provides
19 the ability of the person to push forward
20 perpendicular to the rollers is, I -- as someone
21 who is skilled in the art, I recognize that if you
22 can push forwardly against those rollers and not
23 rely on friction, that that is the key component.
24 Certainly, if your foot is moving a
25 little slower than it was, that will help. But I

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1 interpret those -- the priority of those two
2 terms opposite from you, whereas the bigger --
3 the bigger helper is the incline and as well as
4 this -- the beginning of that paragraph describes
5 the foot moving in an arc from step to step.
6 Q. You're not taking the position, are
7 you, that a POSA would disregard the accelerating
8 and decelerating surface teachings of Chickering,
9 are you?
10 MR. TURNER: Objection. Form.
11 A. Can you state that again?
12 Q. Is it your position that a POSA would
13 disregard the accelerating and decelerating
14 surface teachings of Chickering?
15 A. No. I don't think they would
16 disregard it. I think that they would notice,
17 though, that the incline of the rear of the
18 Chickering treadmill allows someone to push
19 forward, as well as having their foot slow down.
20 But that is also the nature of every curved
21 treadmill where the rear of it inclines upward.
22 Q. Does Chickering actually describe its
23 treadmill as curved?
24 A. No. But the closest it gets is that
25 during each step, that the foot moves in an

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1 approximate arc.
2 Q. Well, that's referring to the movement
3 of the user's foot, correct?
4 A. That's absolutely correct.
5 Q. That doesn't describe any -- anything
6 unique to a curved treadmill versus a flat
7 treadmill, does it?
8 A. I think that if you take a step on
9 what's commonly known as a flat treadmill, that
10 you wouldn't find anyone to say that your foot
11 takes a path shaped like an arc while the foot is
12 in contact with the treadmill surface.
13 Q. Well, this doesn't say that a person's
14 foot moves in an approximate arc while in contact
15 with the tread surface, does it?
16 A. Well, the second sentence says the
17 first foot [sic] contacts the tread surface. So I
18 think that that is the context of the sentence,
19 where it states that the -- during each step, the
20 foot moves in an approximate arc.
21 Q. You testified earlier about your
22 background and how you've studied things related
23 to, for example, a person's gait, right?
24 A. Right.
25 Q. In general, when a person is walking,

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1 does their foot move in an approximate arc?
2 A. I think during swing phase, that that
3 is accurate. While the foot is in contact with
4 the ground and stationary relative to the earth,
5 then it is not.
6 Q. In column 2, about a sentence later,
7 around line 55, Chickering states: Near the
8 bottom of the arc, the foot leaves surface 16a and
9 may for a brief instant be out of contact with any
10 surface.
11 Do you see that?
12 A. I see that.
13 Q. Does that indicate to you that
14 Chickering is likely referring to a general
15 approximate arc of a user's step as opposed to an
16 arc solely while in contact with a surface of the
17 treadmill?
18 A. Can you read that question again?
19 Q. Sure.
20 Does that sentence which states that
21 near the bottom of the arc, the foot may leave the
22 surface 16 -- or the foot leaves surface 16a and
23 may for a brief instant be out of contact with any
24 surface suggest that when Chickering refers to a
25 user having a step that moves in an approximate

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1 arc -- actually, let me -- let me start over. I'm
2 starting to confuse myself. I apologize.
3 A. Okay.
4 Q. So Chickering states that when a
5 person is using the exercise device, during each
6 step, his foot moves in an approximate arc,
7 correct?
8 A. That's right.
9 Q. Later in that same paragraph,
10 Chickering also states that near the bottom of the
11 arc, the foot leaves surface 16a and may for a
12 brief instant be out of contact with any surface,
13 right?
14 A. That's right.
15 Q. Do those sentences, in combination
16 with each other, suggest to you that the
17 approximate arc referred to in Chickering refers
18 more generally to a person's gait, rather than to
19 what motion the foot makes when it's in contact
20 with the -- with the running belt, in Chickering?
21 A. I will say that everything that we've
22 discussed, from line 50 onward, I believe
23 indicates that the approximate arc of each step
24 indicates how the user's foot follows the path of
25 the running belt while the user is attempting to

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1 weight-bear on that foot.
2 Q. If we look at Figure 2 -- or actually,
3 Figure 1 of Chickering, you'll see the two
4 surfaces labeled 16a and 25a. Is 16a, on its own,
5 flat?
6 A. Well, in this one, it's a little
7 trickier than the others; because typically
8 speaking, you don't want to have your foot contact
9 the forward or rearward part of the belt as it
10 wraps around either the front or rear of the
11 treadmill.
12 But because this one is in the
13 middle -- or ends in the middle, it's likely --
14 it's likely that the foot, probably the toes on
15 16a and the heels on 25a, would touch the curved
16 portion of that running belt. And so I think I
17 would have to say that 16a is not entirely a flat
18 plane, but rather, at the ends of it, it is
19 curved.
20 Q. If you took 25a out of the device and
21 you only had surface 16a, would you consider that
22 to be a flat running surface, just at an incline?
23 A. Going with the hypothetical that the
24 back of that frame that's I think labeled 23 here
25 is close to the back there and that the entire

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1 treadmill is just 16a, then with a backstop right
2 behind 15 and 26 there, then I would probably say
3 that this would be considered a flat treadmill.
4 Because you wouldn't expect any part
5 of the foot to contact the rear curvature during
6 normal usage. But because this is a double belt,
7 I would expect portions of the foot to hit the
8 curvage -- curved portions of the belt.
9 Q. Well, Chickering at column 2 states,
10 starting at line 54, like you said before, that
11 near the bottom of the arc, the foot leaves
12 surface 16a, correct?
13 A. That's right.
14 Q. With that in mind, is it still your
15 opinion that, as designed, Chickering is intended
16 for a user's foot to make contact with that curved
17 end of 16a?
18 A. I think that it's really likely that
19 portions of the foot will contact 16a to the left
20 of 15 in -- in Figure 1 as a regular occurrence
21 while using this.
22 I believe, though, what that portion
23 is referring to is that for your foot to go from
24 16a to 25a, it must cease contacting 16a.
25 Q. Well, the second part of that sentence

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1 says "and may for a brief instant be out of
2 contact with any surface," doesn't it?
3 A. It does. I guess that would mean that
4 the user may -- not necessarily does, but they
5 could -- pick their foot up and then basically
6 kick back onto 25a to push themselves forward if
7 they chose to.
8 Q. Is it fair to say that Chickering does
9 not intend for a user to place their foot on that
10 curved end of 16a?
11 A. I don't think we can say what
12 Chickering intends.
13 Q. Let's go back to your declaration,
14 paragraph 169, which is on page 96.
15 A. Got it.
16 Q. In this paragraph, you state, quote:
17 As explained in paragraphs 230 to 243, it would
18 have been obvious to a POSA to combine
19 Chickering's treadmill with Magid's control means
20 to permit only unidirectional movement of the
21 running belts to reduce the risk of the user
22 stepping onto the running belts of the treadmill
23 and losing their balance when the belt moves in a
24 forward direction.
25 Did I read that correctly?

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A. I think you did.
Q. Where, if anywhere, does Chickering note a concern about the belt moving in the forward direction?
A. I don't believe that it's a -- it makes that -- that reference.
Q. Is it fair to say that Chickering's main or only concern is with a user falling off the end of a treadmill or losing their balance while using the treadmill?
A. Yeah. I think that -- I don't recall Chickering describing getting on and getting off the treadmill as part of what they were -- their invention.
Q. Go to paragraph 232 on page 127.
A. Okay.
Q. You state in the first sentence here: It has long been recognized that users may be injured by falling off of a treadmill while mounting or dismounting it or while using it.
Did I read that right?
A. Yes.
Q. And later in this paragraph, you include some block quotes from both Chickering and Socwell, correct?

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A. Yes.
Q. Didn't Chickering and Socwell each purport to solve the problem of people falling off the treadmill without including a safety device?
A. Yes, while using it.
Q. Go back to Chickering, and it's one of the sections we were talking about previously in column 1. In that line right after numeral 40, it states: It is a principal object of this invention to provide a treadmill-type exercising device which removes the necessity for external support means for the user.
Did I read that right?
A. I'm sorry. I was looking in column 1 where you were reading, but is that --
Q. Yes.
A. -- is that in column 1?
Q. Yeah, that is in column 1, right after No. 40, line 40. It's that very short paragraph right in the middle.
A. Oh, yes. I see that. I see that now. Thank you.
Q. Yeah, it's short and easy to skip. That's the perils of drafting.
That paragraph says: It is a

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principal object of this invention to provide a treadmill-type exercising device which removes the necessity for external support means for the user. You see that, right?
A. I see that. And that's -- that is true, that's -- that's what it states there. But in the context of the previous paragraph, it's discussing Wood and Morairty where people just roll off the back of it because it's using rollers and there is no -- nothing on the back of it.
Q. If the principal object of Chickering is to provide a device that removes the necessity for external support means, why would a POSA then look to a reference like Magid that consistently discloses embodiments that only use support means -- or only include support means such as railings or chairs?
A. Well, Magid is a -- an exercise device for simulating gait, which is the same as Chickering. Handrails are required by industry standards. So whether or not something says you need them or not to exercise, the device still needs to have handrails.
But these are -- these statements by Chickering is in relationship to the paragraph

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before, where it describes that without a rear end that's inclined upward, that there is nothing to push off of and people just roll off the back. So they have to be basically held in place.
And that previously, Schmidt, which has the curve, had too much friction for -- for their -- their taste. And you needed something to hold yourself in place, but not from falling off but from being propelled forward.
Q. Doesn't Chickering's description of Schmidt suggest that it had too little friction, not too much friction?
A. I think that in line 21 through about 24, it's stating the opposite of that.
Q. Can you tell me exactly what you're referring to when you say that?
A. So it says: In Schmidt, the handles are necessitated by the fact that the tread surface is frictionally mounted so that the user must have some support to push against in order to move the tread with his feet.
So basically, they're saying if you didn't have that support and you tried to run or walk, that you would just walk off the front end because the tread wouldn't move, you would. And

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1 the idea of the treadmill is that you want to stay
2 in one place.
3 And their invention is that you can
4 stay in one place without these restraints on your
5 person while you're actually exercising, not that
6 you have a handlebar for safety.
7 Q. With respect to Wood and Morairty that
8 are also discussed in that paragraph, wouldn't you
9 agree that the problem identified in those
10 references is too little friction, not too much
11 friction?
12 A. That's right. And the user would
13 slide off the back while using them, which is what
14 Chickering describes here.
15 Q. So in both cases where there is either
16 too much friction or too little friction,
17 Chickering's object is to remove the necessity for
18 external support means for the user; is that
19 right?
20 A. While they are exercising on it.
21 Q. Would a device that doesn't have any
22 external support means be suitable for therapeutic
23 uses or for use by small children?
24 A. Can you read that question again?
25 Q. Would a device that does not have any

Page 50

1 external support means be suitable for therapeutic
2 uses or for use by small children?
3 A. It could.
4 Q. You mentioned earlier that there are
5 standards requiring external support means,
6 correct?
7 A. Handrails are required by the
8 international standards and the ASTM standards
9 with -- although those are also international, but
10 yes.
11 Q. Wouldn't those kinds of features be
12 more or less essential if the -- if the device is
13 intended to be used for therapeutic purposes or
14 for use by small children?
15 A. Not in the context of Chickering. But
16 in the general context of safety, you need to have
17 handrails.
18 Q. Chickering doesn't describe any
19 therapeutic uses, does it?
20 A. No. But it describes the arrangement
21 and geometry of the device so that you can walk
22 and run on it without a restraint holding you in
23 place on the treadmill.
24 Q. Would Chickering be suitable for
25 someone who is -- for someone who has limited

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1 coordination or balance capabilities?
2 A. If it were up to date with all of the
3 standards for treadmill safety, then probably.
4 Q. What do you mean by up to date with
5 standards for treadmill safety?
6 A. Well, if you just had this frame on
7 the floor and someone just got on it, I don't know
8 that I would recommend that. But if it had side
9 rails that protected all the pinch points and
10 in-running nip points on it, so I would not
11 recommend using the double-belt embodiment here
12 because that seems like a dangerous feature to me.
13 But I would say, if you had all the
14 covers that the treadmill standards require and
15 that the belt is covered up so that there aren't
16 exposed pinch and nip points and that it had
17 handle -- handle -- handrails, I should say, then
18 it would probably be okay to use by someone with
19 coordination issues.
20 Q. So Chickering would have to be
21 modified, in your view, in order to meet modern
22 safety standards; is that correct?
23 A. If I were to put this into the stream
24 of commerce, yes.
25 Q. Chickering, if you go to the first

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1 page, was filed on March 16th, 1970. Why are
2 today's safety standards at all relevant to
3 Chickering's disclosures?
4 A. Well, I was only mentioning those
5 because you were asking about usage today. And if
6 I were working on this and someone said we're
7 going to build this and sell it, then you would --
8 it would not be wise to put this into the stream
9 of commerce without -- without providing those
10 minimal safety things which I stated already, just
11 on surface. What else is in there, I'm not sure
12 about.
13 Q. I don't believe I did ask about
14 putting it into use today in general. I
15 specifically asked about whether it would be
16 suitable for use by people with uncoordinated foot
17 movements or balance problems or coordination
18 problems.
19 Do you have any knowledge of what the
20 considerations of those issues would have been in
21 1970?
22 A. I imagine that if you had someone with
23 balance issues and you wanted them to exercise and
24 regain some ability to walk, then I think that
25 Chickering would have been fine. I'm sure that

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1 the therapists guiding the person would be just
2 fine.
3 Q. What do you mean by a therapist
4 guiding a person?
5 A. So if someone has a balance deficit
6 and a coordination deficit, for example, someone
7 who has had a stroke and they're trying to use
8 this for therapeutic reasons, I think that this
9 would have been acceptable in 1970, provided that
10 there is a therapist with them or some sort of
11 spotter for them while they used this invention.
12 Q. And that therapist would provide some
13 form of external support to the user to ensure
14 they don't fall; is that correct?
15 A. That's right. And again, that's not
16 what the supports are talking about in column 1
17 there.
18 MS. RIEGER: Why don't we take a
19 short five-, ten-minute break and then come back?
20 THE WITNESS: Sure.
21 (Recess had.)
22 BY MS. RIEGER:
23 Q. So, Dr. Giachetti, we've been talking
24 about Chickering. Are you aware that Chickering
25 was before the examiner during prosecution of the

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1 '580 patent?
2 A. Yes, I believe I was.
3 Q. What, if anything, do you believe the
4 examiner missed or did not understand about
5 Chickering during examination?
6 A. Well, I noticed that the -- well,
7 particularly, in my review of the file history and
8 my declaration, that the examiner considered
9 Schmidt to be the closest in the prior art to --
10 to the patent application.
11 Q. Okay.
12 A. And I don't remember noting anything
13 that they said about Chickering.
14 Q. So sitting here today, you can't
15 identify anything for me that you specifically
16 think the examiner misunderstood or didn't
17 appreciate about Chickering?
18 A. Yeah. I don't recall seeing something
19 that the examiner flagged regarding Chickering,
20 but I did not review the examiner's notes
21 regarding Chickering in advance of today.
22 Q. Are you aware that Socwell was before
23 the examiner during prosecution of the '580
24 patent?
25 A. Yes.

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1 Q. What, if anything, do you believe the
2 examiner missed or did not understand about
3 Socwell during prosecution?
4 A. Basically, the same answer. I didn't
5 review what the examiner stated in -- during the
6 prosecution history. And in my declaration, I
7 note that the examiner relied on Schmidt and
8 Magid.
9 Q. So you are aware that the examiner
10 also considered Magid during prosecution of the
11 '580 patent, correct?
12 A. Yes.
13 Q. What, if anything, do you believe the
14 examiner missed or did not understand about Magid
15 during prosecution?
16 A. Well, I think that -- let's see. You
17 know, I didn't review what the examiner said in
18 advance of the deposition. So outside of what's
19 in my declaration, I don't have anything to add to
20 it, to those pages.
21 Q. So again, sitting here today, you
22 can't identify anything that you specifically
23 think the examiner misunderstood or didn't
24 appreciate about either Socwell or Magid; is that
25 correct?

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1 A. I don't recall anything as I sit here
2 that's not contained in my declaration
3 regarding -- regarding those patents, I believe.
4 Q. Is there anything in your declaration
5 that discusses what the examiner may or may not
6 have misunderstood about those references, to your
7 knowledge?
8 A. Not as I -- not as I sit here.
9 Q. Do either of your other declarations
10 discuss what the examiner may or may not have
11 appreciated about the prior art before him during
12 prosecution?
13 A. I have a section in all the reports
14 describing the file history, and so I discussed in
15 those sections the -- the pertinent aspects of the
16 file history. But I didn't review the file
17 histories in advance of the deposition, so I would
18 have to rely on what's contained in my
19 declarations.
20 Q. So to the extent that you have any
21 opinions on that matter, it would be contained in
22 your declarations; is that correct?
23 A. As I sit here.
24 MS. RIEGER: All right. I believe
25 that concludes the questions that I have for

now.
Andy, do you have any redirect that you would like to do?
MR. TURNER: Let me see.
Yes, I do have a couple of questions. Do you want to go now or do you want to take a break?
MS. RIEGER: We can go now if you'd like.
MR. TURNER: Okay.
EXAMINATION
BY MR. TURNER:
Q. All right. Dr. Giachetti, can you turn to the Chickering -- Exhibit 1013, the Chickering reference?
A. Okay.
Q. Okay. Do you recall discussing Chickering during your cross-examination?
A. Yes.
Q. Okay. Can you turn to Figures 1 and 2?
A. Okay.
Q. And do you recall discussing the one-belt embodiment and the two-belt embodiment here?

A. Yes.
Q. Okay. With reference to the two-belt embodiment of Figure 1, do you recall describing pinch point between the belts --
A. Yes.
Q. -- in your cross-examination?
A. Yes.
Q. What do you mean by pinch point?
A. So that is a point where two moving surfaces, which would be considered in-running -- or could be in-running, where a piece of clothing or small limbs or fingers could get caught and pulled in and injured.
Q. Would you consider the pinch point a safety concern?
A. Yes.
Q. Now, do you also recall discussing Chickering's lack of handrails or support structure during your cross-examination?
A. Yes.
Q. All right. Can you turn to paragraph 190 of your declaration?
A. Paragraph 190?
Q. Yeah. Sorry.
A. I've got it. Page 107.

Q. All right. And can you read paragraph 190?
A. Sure.
Chickering discloses that its treadmill may be provided with handles, railings, and the like.
And then there is a quote underneath it: While the exercising device is usable without external supports such as handles, railings, and the like, such supports may be provided if desired without departing from the spirit of the invention. Chickering 3, lines 38 to 41.
Q. So what does Chickering describe in this block quote?
A. So basically, that the device itself can be used for exercise without handles and railings, but it can also be used with those.
MR. TURNER: Okay. No further questions.
MS. RIEGER: Nothing from me.
(Deposition concluded at 3:57 p.m.)

ACKNOWLEDGEMENT

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

LIFECORE FITNESS, INC. d/b/a ASSAULT FITNESS,
Petitioner,
v.
WOODWAY USA, INC.
Patent Owner.

IPR023-00836
U.S. Patent No. 9,039,580

I, ROBERT GIACHETTI, Ph.D., P.E., state that I have read the foregoing transcript of the testimony given by me at my deposition on January 10, 2024, and that said transcript constitutes a true and correct record of the testimony given by me at the said deposition except as I have so indicated on the errata sheets provided herein.

_____
ROBERT GIACHETTI, Ph.D., P.E.

SUBSCRIBED AND SWORN to before me
this_____day of_____, 2024.

_____
NOTARY PUBLIC
MY COMMISSION EXPIRES:_____

CERTIFICATE OF SHORTHAND REPORTER

I, JENNIFER L. BERNIER, Certified Reporter and within and for the State of Illinois do hereby certify:

That ROBERT GIACHETTI, Ph.D., P.E., the witness whose deposition is hereinbefore set forth, was duly sworn by me before the commencement of such deposition and that such deposition was taken before me and is a true record of the testimony given by such witness.

I further certify that the deposition of ROBERT GIACHETTI, Ph.D., P.E., occurred at the offices of Foley & Larnder LLP on Tuesday, January 10, 2024 commencing at 2:04 to 3:57 p.m.

I further certify that I am not related to any of the parties to this action by blood or marriage, I am not employed by or an attorney to any of the parties to this action, and that I am in no way interested, financially or otherwise, in the outcome of this matter.

IN WITNESS WHEREOF, I have hereunto set my hand this 15th of January, 2024.

_____
JENNIFER L. BERNIER, CSR, RMR, CRR
CSR No. 084-004190

ERRATA SHEET FOR THE TRANSCRIPT OF:

CASE NAME: LIFECORE FITNESS, INC. d/b/a ASSAULT FITNESS v. WOODWAY USA, INC.
DEP. DATE: JANUARY 10, 2024
DEPONENT: ROBERT GIACHETTI, Ph.D., P.E.
U.S. Patent No. 9,039,580

CORRECTIONS:

Pg.	Ln.	Now Reads	Should Read	Reason
___	___	_____	_____	_____
___	___	_____	_____	_____
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_____
Signature of Deponent

SUBSCRIBED AND SWORN BEFORE ME
THIS_____DAY OF_____, 2024.

_____
(Notary Public)

MY COMMISSION EXPIRES:_____

[

[sic] (2)
36:2;39:17

A

ability (2)
37:19;52:24
able (1)
22:1
above (3)
10:10,16;11:12
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