

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

3
4 PROVISUR TECHNOLOGIES, INC.,)
5)
6 Petitioner,) Case IPR 2024-00224
7) U.S. Patent No.
8 vs.) 9,457,487
9)
10 TEXTOR MASCHINENBAU GMBH,) DEPOSITION TAKEN ON
11) BEHALF OF:
12 Patent Owner.) PETITIONER
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REMOTE DEPOSITION OF JOHN M. COLLINS, Ph.D.

TAKEN ON BEHALF OF THE PETITIONER

June 21, 2024

INDEX

WITNESS

JOHN M. COLLINS, Ph.D.

PAGE

Examination by Mr. Hart

5

NO EXHIBITS MARKED

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5 vs.) Case IPR 2024-00224
6 TEXTOR MASCHINENBAU GMBH,) DEPOSITION TAKEN ON
7 Patent Owner.) BEHALF OF:
8) PETITIONER
9

10 REMOTE DEPOSITION OF JOHN M. COLLINS,
11 Ph.D., produced, sworn and examined on June 21, 2024,
12 between the hours of 9:02 a.m. and 10:41 a.m. of that
13 day, before Kelly R. Rexroat, a Certified Court
14 Reporter (MO and AZ), Certified Shorthand Reporter
15 (KS), Registered Professional Reporter, within and for
16 the State of Missouri, in a certain cause now pending
17 before the Patent Trial and Appeal Board, between
18 PROVISUR TECHNOLOGIES, INC., Petitioner, vs. TEXTOR
19 MASCHINENBAU GMBH, Patent Owner; on behalf of the
20 Petitioner.
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1 IT IS HEREBY STIPULATED AND AGREED by and
2 between counsel for the Petitioner and counsel for the
3 Patent Owner that this deposition may be taken in
4 shorthand by Kelly R. Rexroat, RPR/CCR, a Certified
5 Court Reporter, Certified Shorthand Reporter, and
6 afterwards transcribed into typewriting; and the
7 signature of the witness is expressly waived.

8 * * * * *

9
10 JOHN M. COLLINS, Ph.D.
11 of lawful age, having been first duly sworn to tell
12 the truth, the whole truth, and nothing but the truth,
13 testified as follows:

14 EXAMINATION

15 BY MR. HART:

16 Q. Good morning, Dr. Collins. My name is Paul
17 Hart. I'm here for a patent matter in this matter.
18 It looks like one of my colleagues, Khoa Vu, is also
19 on the line listening in and watching.

20 Can you state your full name for the record
21 to get us started?

22 A. Sure. It's John Meloy Collins, Jr.

23 Q. Have you been deposed before, Dr. Collins?

24 A. I have.

25 Q. About how many times?

1 A. I'm thinking about 40, 45 times.

2 Q. Okay. Then I will keep my ground rules
3 short. It is my job to ask clear questions. If you
4 don't understand any of my questions for any reason,
5 please let me know so I can rephrase or clarify. If
6 you do answer one of my questions, I will assume you
7 understood it. Is that fair?

8 A. Yes, it is.

9 Q. The court reporter can only capture one of
10 us speaking at a time. I will do my best not to speak
11 over you. If I do begin speaking before you have
12 concluded your answer, please let me know so I can let
13 you finish.

14 Is there any reason, medical or otherwise,
15 you'd be unable to fully and truthfully answer my
16 questions today?

17 A. No, not that I'm aware.

18 Q. Okay. Very good. I understand you have a
19 clean copy of the record there with you. We will be
20 mostly using your declaration submitted in support of
21 the petition in this proceeding, Exhibit 1003. I'm
22 going to share my screen and start out with
23 Exhibit 1003. I believe I am technically competent
24 enough to do this. Here we go. All right.

25 Can you see paragraph 30 -- paragraphs 34

1 and 35 from your declaration in this proceeding on the
2 screen?

3 A. No. I can see a glare. I've got my own
4 machine here. Let me...

5 Q. All right. Very good. Can I have you pull
6 up -- it's page 16 in Exhibit 1003, and that includes
7 paragraphs 34 and 35.

8 A. Yes, I've got that in front of me.

9 Q. Very good. Here you lay out a level of
10 ordinary skill in the art. Do you see that?

11 A. I do.

12 Q. Okay. Is it correct that you have applied
13 a level of ordinary skill in the art definition that
14 was established in a related case?

15 A. Yes, I have.

16 Q. And as you have set forth in paragraphs 34
17 and 35, there are a number of different ways a person
18 can qualify as a person of ordinary skill in the art
19 under that definition; is that correct?

20 A. That's correct.

21 Q. I don't see anywhere in your declaration
22 where you have stated that you satisfy this definition
23 from a related case. Do you meet the definition set
24 forth in paragraphs 34 and 35?

25 A. Yes, I do.

1 Q. Okay. Can you explain to me what
2 experience in your background qualifies you under this
3 definition?

4 A. Sure. So I've got a bachelor's degree in
5 mechanical engineering. I actually have a master's
6 and Ph.D. in mechanical engineering. And I've got far
7 in excess of seven years of experience -- even if I
8 didn't have those degrees, I've got far in excess of
9 seven years of experience working as an engineer on
10 food processing and/or packaging systems or similar
11 fields.

12 Q. Okay. What experience do you have in food
13 processing or packaging systems?

14 A. I have laid out some of that in my
15 description of my own background. Let me go to that
16 in my report so I don't -- find it.

17 Yeah, so starting on paragraph 19, I lay
18 out some of the work that I've done kind of in reverse
19 order. So I've worked at an organization called TIAX,
20 T-I-A-X, and there I worked on -- and then before
21 that, Arthur D. Little as a design engineer. And TIAX
22 was basically spun out of Arthur D. Little, so it was
23 the same group. So some of the food processing
24 production systems I worked on, one was a very large
25 system. As it says here, it's a production system to

1 process and pack fresh cucumbers into jars, which were
2 then filled with brine and pickled.

3 So that system started with hoppers at the
4 one end of the factory. Those hoppers were liquid
5 filled. There would be a conveyor that would go into
6 the liquid and remove cucumbers. There would be an
7 orientation conveyor so that would be singular, side
8 by side, going along in a conveyor. We had a vision
9 system that would look at the size and shape of each
10 one of those cucumbers and then determine which of
11 those cucumbers would go into -- what combination of
12 those cucumbers would go into what jars. So they
13 would get to a diverter. That diverter would kick a
14 cucumber off into a slicer, and that slicer would then
15 feed that cucumber into a jar. There would be a
16 mechanism to put a divider in so I could put the next
17 set of -- so it'd be, let's say, five slices. Those
18 five slices would be evenly distributed around a jar
19 and then the next cucumber would come in, be
20 interspersed with those, and then there would be one
21 in the center. So that all -- that all required a
22 determination of the size and relative shape.

23 So a lot of conveyors there. Again, those
24 conveyors ran the full length of the factory floor.
25 There were direct food contact. So obviously, we

1 needed to be very conscious about cleanliness.

2 Q. Can I jump in. Often -- I know I asked a
3 very broad question, but often it's easier for both of
4 us to break these up in terms of bite-size pieces.

5 So if you don't mind, I'd like to ask a few
6 follow-up questions about that particular experience
7 and then you can continue on with the others.

8 A. That's fine.

9 Q. Okay. Very good. What were your specific
10 roles related to that cucumber production system?

11 A. So I was responsible for the -- so at the
12 time I was working for a consulting firm, Arthur D.
13 Little, so we were paid to basically develop the
14 concepts around how -- in this case, it was Vlasic
15 products -- how Vlasic could increase the throughput
16 and accuracy -- not accuracy -- the yield of
17 cucumbers. Because earlier -- it's literally all done
18 by hand. They'd have a lot of seasonal workers there
19 that would be packaging these things.

20 So I had the overall responsibility at
21 Arthur D. Little for the conceptual design of the
22 system. We did, then, prototyping of these various
23 components in our labs in Cambridge. We then
24 fabricated -- after successful testing, we brought the
25 prototype equipment to Vlasic's facility. We ran that

1 prototype equipment for a season, and that was still a
2 lot of the manual -- manual work to load conveyors,
3 those sorts of things. Then the next season, we
4 actually implemented -- I was responsible for the
5 overall design of the production system that actually
6 then integrated into the Vlasic system. And I was
7 responsible for coordinating the -- obviously had a
8 team, so I didn't do it all myself, but we were
9 responsible for implementing that production line and
10 getting that production line up and running.

11 Q. What was the overall timeline of that
12 particular project?

13 A. About two years.

14 Q. Okay. And how large was the team?

15 A. On our side, we probably had four engineers
16 and then we had two engineers from Vlasic. So six
17 total.

18 Q. And your title at the time of that project
19 was what?

20 A. I believe, at the time, I was a unit
21 manager at Arthur D. Little. So I had a group of
22 about 20 -- if I remember the numbers right, about 20
23 engineers that worked for me at the time. And the
24 units were then -- so at that time, the division I was
25 in had probably 200 or so people in it. So we had

1 about ten operating units. My operating unit was a
2 mechanical engineering operating unit. We had a food
3 science group. We had a materials group. We had an
4 energy group. We had a number of different groups.

5 Q. And how was your work split up across those
6 various groups?

7 A. Well, so as a project would come in, I
8 would basically be able to source individuals from any
9 of those groups to work on a project.

10 Q. How much of your work that you did at
11 Arthur D. Little was in the food -- sorry. Let me
12 scroll up and make sure I get the terminology
13 correctly. Was it food products group that you
14 mentioned?

15 A. No, I was responsible for mechanical
16 engineering group, and we would work on food products.
17 We'd work on energy products. We worked on a variety
18 of things. So we were not specific to any one
19 industry.

20 Q. And over your time at Arthur D. Little,
21 about what percentage of your time was dedicated to
22 the food products group?

23 A. There was no food products group.

24 Q. Sorry. I must have misunderstood your
25 answer.

1 How much of your time at Arthur D. Little
2 was on food products-related projects?

3 A. That's hard for me to estimate. It would
4 be -- it would be a guess on my part at this point.

5 Q. Okay. More than half?

6 A. Probably less than half.

7 Q. Less than 10 percent or more than
8 10 percent?

9 A. It would be more than 10 percent.

10 Q. Okay. If you had other examples that you
11 were going to talk about before I interrupted a few
12 moments ago, feel free.

13 A. Sure. Again, it's outlined in my report.
14 Another machine was for the production of ramen
15 noodles, so this was a machine to automate the process
16 where basically our machine would take flat dough,
17 roll it out and then slice that dough and then fold it
18 in a serpentine fashion to be then inserted into a
19 package for sale.

20 Q. Outside of your experience at Arthur D.
21 Little, do you have any other professional experience
22 related to food processing, packaging or related
23 spaces?

24 A. Certain -- while at TIAX, basically we had
25 the same set of groups. So one of the -- there was a

1 sensory group and an appliance group. So we did an
2 awful lot of work, for example, in Sub-Zero and Viking
3 and Whirlpool on cooking equipment, those sorts of
4 things.

5 Q. Outside of TIAX and Arthur D. Little, have
6 you worked in food processing or packaging?

7 A. Not that I can recall, no.

8 Q. Have you served as an expert on behalf of
9 Petitioner Provisur before?

10 A. No, I have not.

11 Q. Have you served as an expert witness in any
12 patent cases before?

13 A. Yes, I have.

14 Q. What types of patent cases have you served
15 as an expert in?

16 A. Most of them are medical products.

17 Q. Okay. Have you ever served as an expert on
18 a food processing or packaging case?

19 A. Not that I recall.

20 Q. And have you ever engaged with Provisur's
21 law firm on an expert -- in an expert capacity?

22 A. No, I've not.

23 Q. All right. Let's move on to the fun stuff.
24 Can I have you -- I'd like to start out by discussing
25 the McLaughlin reference. Are you familiar with the

1 McLaughlin reference that you've --

2 A. And just for the record, there were other
3 examples of packaging equipment and et cetera that I
4 have in my report. So I didn't mean to say that every
5 example I had is -- conveys all that I conveyed in my
6 report.

7 Q. Are you familiar with the McLaughlin
8 reference that you've analyzed?

9 A. Yes, I am.

10 Q. Okay. Very good. I want to start with
11 McLaughlin here. Can I have you turn to paragraph 51
12 in your declaration, Exhibit 1003.

13 A. Paragraph 51, you said?

14 Q. Yes.

15 A. Yes, I'm there.

16 Q. All right. Very good. You begin paragraph
17 51 stating: "McLaughlin is directed to a method and
18 apparatus for producing stacks of food slices of
19 precise weights."

20 Do you see that?

21 A. I do.

22 Q. So McLaughlin is a conveyor that both moves
23 sliced food products and also weighs those sliced food
24 products; is that correct? Apologies.

25 A. Well, yeah, as my report says, it's an

1 apparatus for producing stacks of food slices, and
2 those stacks are precisely weighed -- or precise
3 weights.

4 Q. Okay. Let's move on to the next paragraph
5 to get a little more specific about -- just to lay a
6 little foundation for my questions here. In paragraph
7 52, the second sentence, you note: "The slice scale
8 100 measures the weight of each slice as it is cut,
9 and the check scale 200 measures the weight of a stack
10 of sliced products or drafts."

11 Do you see that?

12 A. I do.

13 Q. Is it the check scale 200 that you have
14 focused on in your declaration?

15 A. I'm not sure if I focused on, but I
16 certainly described it.

17 Q. In terms of your invalidity theories, is
18 check scale 200 the primary component that you have
19 discussed in your declaration?

20 MR. FELDHAKE: Objection to form.

21 A. I certainly describe it, but I wouldn't say
22 that to be inclusion of everything else, no.

23 Q. (By Mr. Hart) Okay. And that wasn't my
24 question. Let's scroll down here to paragraph 54 on
25 page 28 of your declaration. Let me know when you're

1 there.

2 A. Yeah, I'm there.

3 Q. All right. You have an annotated version
4 of Figure 2 for McLaughlin.

5 Do you see that?

6 A. I do.

7 Q. Those annotations annotate check scale 200;
8 correct?

9 A. Correct. And just to be clear, it's a
10 portion of Figure 2. It's not all of Figure 2.

11 Q. Okay. You note, second sentence in
12 paragraph 54 -- sorry. I'll just read the first and
13 second sentence. "An annotated portion of McLaughlin
14 Figure 2 below shows an elevation view, partly in
15 cross section, of check scale 200. It has a removable
16 conveyor belt unit (highlighted in yellow) at the top
17 which includes a conveying surface 210 and support
18 frame 225."

19 Do you see that?

20 A. I do, and it looks like I made a mistake.
21 It was green and not yellow. Oh, no, I'm sorry. I
22 was looking at the belt. My apologies. This is
23 correct.

24 Q. Yeah, so the yellow represents the full
25 conveyor belt unit that you contend is removable from

1 the overall structure; correct?

2 A. That's correct, yeah.

3 Q. And is it correct that that yellow
4 structure both moves food along the conveyor belt path
5 and allows that food to be weighed?

6 A. That's correct.

7 Q. How does the structure described in
8 McLaughlin specifically related to check scale 200
9 weigh the food slices or drafts that are deposited on
10 the conveyor belt?

11 A. There is a load cell in the structure. I'd
12 have to go back and look at the patent itself to pull
13 up the numbers.

14 Q. What components that we can see here in
15 your annotated portion of Figure 2 are weighed by the
16 load cell?

17 A. Again, to answer that, I want to go back
18 and look at McLaughlin and answer that completely.

19 Q. Okay. Why don't we pull up -- would you
20 like to pull up McLaughlin there locally?

21 A. Sure.

22 Q. I'll just let you drive with McLaughlin,
23 and you let me know when you're ready to discuss which
24 components in Figure 2 are weighed by the load cell
25 that you mentioned.

1 A. So I'm just looking at Column 4, starting
2 on the first line. It says "The weight carried by the
3 horizontal plate is transferred by the shaft 270 to
4 the load cell 280 situated underneath the horizontal
5 plate 260 and the shaft 270."

6 Q. Is it true that the entire structure you
7 have annotated in yellow on page 28 of your
8 declaration, Exhibit 1003, is part of what is weighed
9 by that load cell?

10 A. That's correct.

11 Q. So in addition to the full yellow
12 structure, the food that is deposited on that yellow
13 structure also is weighed by load cell?

14 A. It's on the load cell, but those weights
15 are what are called tared, so those are zeroed out.
16 So you look at the incremental weight when there is no
17 sliced food layers on it.

18 Q. Okay. So a lot of the mechanical structure
19 that we see on page 28 of your declaration, including
20 what is annotated in yellow, will be imposing a force
21 on the load cell. That will -- they will do a tare to
22 zero that out. And then when they put food product on
23 top of the conveyor belt, that's how the load cell is
24 used to determine the weight of that food product. Is
25 that accurate?

1 A. Yes, to my understanding.

2 Q. Very good. So you have McLaughlin open.
3 That's Exhibit 1006. Can I have you scroll down in
4 that same column you were just reading from, Column 4.
5 Starting at line 57 and continuing to 62, I'm going to
6 read in a little excerpt from McLaughlin.

7 It states: "Like the slice scale, the
8 check scale comprises a conveying surface 210 with a
9 weigh scale situated beneath the conveying surface.
10 The conveying surface 210 is made from a flexible,
11 thin and preferably lightweight material such that the
12 weight of the sliced product can be accurately
13 transferred to the scale and reflected in the weight
14 measured."

15 Do you see that?

16 A. Yes, I do.

17 Q. Why does the weight of the conveying
18 surface impact the system's ability to accurately
19 measure food drafts?

20 MR. FELDHAK: Objection. Form. Scope.

21 A. Well, the answer is that the load cells
22 typically have accuracies, and those accuracies
23 oftentimes are expressed as a percent of the full load
24 capability. So if you had, say, a full load of a
25 thousand pounds and you had an accuracy of 1 percent

1 and you're trying to measure something that's, say, a
2 pound, that would be lost in the noise. So what you
3 try to do is to minimize the total weight so that the
4 accuracy of the -- is as high as possible.

5 Q. (By Mr. Hart) So the weight you want to
6 minimize is the -- to improve accuracy, is the weight
7 of all the mechanics, all the structure above the load
8 cell; correct?

9 MR. FELDHAKE: Same objections.

10 A. Yeah, what I typically refer to as dead
11 weight. You want to remove as much dead weight as you
12 can.

13 Q. (By Mr. Hart) Everything that is zeroed
14 out through the tare process that you mentioned
15 earlier?

16 A. Yeah.

17 Q. Based on that design consideration or just
18 reality of load cells, would a POSITA have been
19 motivated to minimize the weight of that yellow
20 conveyor belt unit structure that you've highlighted
21 on -- in your declaration at page 28?

22 MR. FELDHAKE: Same objections.

23 A. The -- well, I'm not sure what you mean by
24 minimize. You certainly want to get the weight low,
25 but you want to make sure that there is enough

1 structural integrity that it works properly.

2 Q. (By Mr. Hart) Okay. The lighter the
3 structure, including the conveyor belt unit, the more
4 accurate you can weigh food product; is that correct?

5 MR. FELDHAKE: Same objections.

6 A. Well, again, not in all cases. One example
7 I can think of where we had some things that we needed
8 to measure very accurately, we had a counter spring
9 that was used to offset some of the dead weight so
10 that the incremental load -- so the accuracy was
11 higher than not.

12 So there is some cases where you need to
13 have mechanical structure, and there are things that
14 you can do to improve the accuracy.

15 Q. (By Mr. Hart) I see. Are any of those
16 mechanisms to improve accuracy via springs or other
17 mechanical structures disclosed in the McLaughlin
18 reference, to your knowledge?

19 A. I don't remember reading that, no. But
20 certainly, you know, someone like myself who's a
21 person of ordinary skill in the art would understand.

22 Q. Going back to your declaration,
23 Exhibit 1003. Can I have you scroll down to paragraph
24 60 on page 30.

25 A. I'm there.

1 Q. Okay. You state: "Not unlike Konishi, the
2 McLaughlin removable conveyor belt unit is basically
3 lifted up by hand and pops out of the system for easy
4 removal."

5 Do you see that?

6 A. I do.

7 Q. Does the weight of McLaughlin's conveyor
8 belt unit impact how easily it can be removed from
9 McLaughlin's overall structure?

10 A. Well, certainly the weight of anything
11 would impact how easy it is to move.

12 Q. And is it fair to say that the lighter that
13 conveyor belt unit is, the easier it would be to
14 remove it from the structure?

15 A. All else being equal, I would say so.

16 Q. So would you agree with the
17 characterization that a lightweight conveyor belt both
18 improves the accuracy of the measurements and also
19 makes the conveyor belt unit easier to remove?

20 MR. FELDHAK: Objection to form. Scope.

21 A. I can't say sitting here, can I think
22 through all of the scenarios where that would be the
23 case every single time.

24 Q. (By Mr. Hart) Is that statement generally
25 accurate?

1 MR. FELDHAKE: Same objections.

2 Q. (By Mr. Hart) Accounting for odd cases?

3 A. Well, again, I can't -- it's hard for me to
4 think through all the scenarios. One example that
5 comes to mind is if you make something too light and
6 then it gets flexible, it becomes very difficult to
7 control. So you need to make sure you've got plenty
8 of structural integrity. And at what point does the
9 structural integrity to make it easier to move
10 contrast the weight? So again, it's not something
11 that I can answer in general.

12 Q. Categorically, it's hard to answer?

13 A. Yeah.

14 Q. Okay. Let's stay in paragraph 60 in your
15 declaration. I want to explore your opinion regarding
16 how McLaughlin's conveyor belt unit, the structure
17 that you annotated in yellow we were talking about
18 earlier, is installed and removed from the overall
19 McLaughlin system.

20 In paragraph 60, the last sentence on
21 page 30, you state: "Using my experience and
22 education, I helped prepare these figures to
23 illustrate my best understanding of how a person of
24 skill in the art would understand McLaughlin's
25 conveyor works based on the mechanics and functions

1 described in the patent."

2 Do you see that?

3 A. I do.

4 Q. All right. Below that, on page 31, you
5 have what I believe is a -- figures that were created
6 based on McLaughlin's teachings, illustrating how you
7 believe one of skill in the art would install and
8 remove the conveyor belt unit; is that correct?

9 A. That's correct.

10 Q. Okay. Let's walk through -- there are four
11 panels. I'd like to walk through those four panels
12 just to establish a foundational understanding of what
13 you're depicting here. In Panel 1, you state: "Place
14 into forward slot."

15 Is the forward slot that you're referring
16 to the angled slot on the left-hand side of that
17 McLaughlin structure?

18 A. Yes, it is. And in this case, it's not
19 placed all the way into the slot, but it's placed -- I
20 should have said probably placed in proximity to the
21 forward slot.

22 Q. Okay. And then in Panel 2, it looks like
23 we have the conveyor belt unit partially inserted into
24 that forward slot, and you state that the next step is
25 engaged drive belt. What is happening in that second

1 step?

2 A. So the operator would basically take the
3 drive belt and loop it around the conveyor, the gear
4 on the conveyor, pulling on the conveyor.

5 Q. And then moving on to the third panel, you
6 state: "Tension drive belt."

7 What happens in this tension drive belt
8 step?

9 A. Yeah, so at this point, the belt assembly
10 is pushed fully into engagement into the -- into the
11 forward slot. So it's pushed all the way to the left.
12 And so doing that tensions -- tensions the drive belt.

13 Q. Okay. And then finally, you state: "Lock
14 into rear notch" in Panel 4.

15 Do you see that?

16 A. Yes.

17 Q. Is the rear notch the vertically oriented
18 notch in the base structure?

19 A. Yes, it is.

20 Q. And how does the conveyor belt unit lock
21 into that vertically oriented rear notch in
22 McLaughlin?

23 A. Well, it moves -- it rotates about the axis
24 of the pulley on the left into that vertical slot.
25 And then, due to tension, the tension is basically

1 pulling the belt -- the assembly to the right, but
2 it's prevented from being -- from moving because of
3 that vertical slot. So that holds it in place.

4 Q. So it can -- effectively, after you have
5 locked into the rear notch, it can move up and down on
6 that axis, but it cannot move side so side. Is that
7 right?

8 MR. FELDHAKE: Objection. Form.

9 A. Yeah, a little bit different. So it can't
10 move down because it's -- the pin prevents it from
11 moving down, and it can move -- again, there are a
12 couple different dimensions here. So it can move
13 vertically up, but it can't move into and out of the
14 page. I consider that to be side so side. So it
15 can't move into and out of the page. And when it's
16 engaged, it can't move forward and back, left to right
17 in the page. It can only move vertically in the page.

18 Q. (By Mr. Hart) Understood. So it can be --
19 the process can be reversed. It can be lifted out of
20 that -- what you call rear notch; correct?

21 A. That's correct. Yeah, it can be lifted out
22 of that rear notch and the process is reversed to
23 remove the conveyor unit.

24 Q. Can you scroll with me way down to
25 paragraph 230 in your declaration, Exhibit 1003.

1 A. Okay. I'm there.

2 Q. So I'm going to read -- I'm going to read
3 the first few sentences of paragraph 330 and then --

4 A. I thought you said 230. I'm sorry.

5 Q. I did say 230, and I don't know what I just
6 said if it wasn't 230, but yes, we are on 230 and I'm
7 going to read that into the record.

8 230 starts: "A person of skill in the art
9 would have recognized that the installation/removal
10 process that I detailed above in Section XIII.A.2 and
11 XIII.A5 would not require any tools. As I detailed,
12 the shape and structure of McLaughlin side walls 230
13 in support frame 225 show that those two components
14 are designed to interconnect. A person of skill in
15 the art would appreciate that the interconnecting fit
16 between the two components would be a" -- "would be
17 designed to be tight enough to not require any
18 additional tools to secure the conveyor belt unit to
19 the substructure and hold it in place through gravity
20 alone."

21 Do you see that?

22 A. I do.

23 Q. Okay. Very good. Is it your opinion that
24 consistent with -- let me start over here.

25 This is in a section discussing Dependent

1 Claim 16. Do you see that on page 119, Dr. Collins?

2 A. I do.

3 Q. Is it your opinion that, consistent with
4 Claim 16, McLaughlin's conveyor belt can go from a
5 fully removed state to a state in which the unit is
6 secured and ready to convey a food product without any
7 tools at all?

8 A. That's correct.

9 Q. And in the opposite direction, is it your
10 opinion that, satisfying Claim 16, McLaughlin's
11 conveyor belt unit can go from fully secured in
12 conveying food products to fully removed and able to
13 be cleaned without using any tools?

14 A. Correct.

15 Q. Skipping one sentence, you state:
16 "McLaughlin's Figure 2, Figure t, and the knowledge of
17 a person of skill in the art would render obvious an
18 installation that couples McLaughlin's conveyor belt
19 unit to its subframe and secure it in place, with only
20 needing to overcome gravity to remove it."

21 Do you see that?

22 A. I do.

23 Q. What is Figure t?

24 A. Good question. Let me look at McLaughlin.
25 I think I must have meant Figure 4. That's

1 the only one I've annotated that shows a construction.
2 I think that might have been a typo.

3 Q. And where have you annotated Figure 4
4 relevant to the McLaughlin discussion?

5 A. Page 96, paragraph -- well, page 96.

6 Q. I see. Okay. Very good.

7 So just to make sure I understand your
8 opinion here, you believe it would have been obvious
9 to leave McLaughlin's conveyor belt unit unsecured and
10 held in place by gravity alone while it moves food
11 products. Is that accurate?

12 MR. FELDHAKE: Objection. Form.

13 A. And actually, I probably should have
14 augmented that a little bit because there is also
15 friction. As I mentioned, the drive belt is in
16 tension, and that drive belt is moving the removable
17 conveyor assembly -- if you are looking at those
18 illustrations that I have, moving it to the right.
19 But the vertical slot prevents it from moving to the
20 right, so there's actually friction between the pin
21 and the slot. So in addition to gravity, that
22 friction will help hold it in place.

23 Q. (By Mr. Hart) No other mechanical
24 structures that are securing that in place; correct?

25 MR. FELDHAKE: Objection. Form.

1 A. There -- there aren't. There certainly
2 could be, but there aren't as disclosed.

3 Q. (By Mr. Hart) Okay. And to be clear, I'm
4 just asking -- I'm just trying to understand the
5 opinion you've set forth here. This opinion suggests
6 that it would have been obvious to place that
7 removable conveyor belt unit in rear notch and rely on
8 gravity and friction in that rear notch to keep it in
9 place while it conveys food products; is that right?

10 A. That's correct.

11 Q. Now, I believe you just alluded to this,
12 but McLaughlin's teachings don't preclude the use of
13 some additional physical mechanism to hold it in place
14 during operation, do they?

15 A. No, they can be added certainly.

16 Q. And for Claim 10, you have separately
17 opined that a POSITA would have found it obvious to
18 secure McLaughlin's conveyor belt unit with a latch;
19 right?

20 A. Can you help me -- that's my recollection,
21 but can you point me to where --

22 Q. I can, yes. So your opinion regarding
23 Claim 10 in McLaughlin begins on page 115, paragraph
24 220. And I believe you discuss adding a latch to
25 McLaughlin in paragraph 223.

1 A. Yes.

2 Q. What is the risk of not securing
3 McLaughlin's conveyor belt unit? What would happen
4 during operation if there was no latch and the
5 gravitational force was insufficient to hold it in
6 place?

7 A. Well, insufficient against what?

8 Q. Well, why does it need to be secured? What
9 are we securing it against?

10 A. Yeah. So my experience would be that these
11 machines, they're operating in a mechanically robust
12 environment and there can be vibrations. So I might
13 be worried about vibrations. And if there were
14 vibrations that ended up causing the conveyor to
15 vibrate up, then, as a -- and the predecessor conveyor
16 would hit a lip of the conveyor and potentially cause
17 the food product not to get on top of the conveyor.

18 Q. Okay. And as we talked about earlier, the
19 only available motion for that conveyor belt unit in
20 McLaughlin is up out of rear notch; correct? So the
21 concern would be that the conveyor belt, through
22 vibrations or other forces, might pop out of rear
23 notch. Do I have that right?

24 A. I think that's fair.

25 Q. What determines -- if we focus on your

1 analysis of Claim 16 and set aside the possibility of
2 a latch, what determines the gravitational force that
3 secures this conveyor belt unit in place?

4 A. The weight.

5 Q. Okay. So it's the weight of the structure
6 you annotated in yellow that we discussed earlier, the
7 entire removable conveyor belt unit?

8 A. It's the weight and what we call the mobin
9 (phn) arm, because it's secured on the left, and then
10 we -- and it's pivoting around it. So it would be the
11 center of mass multiplied by the length to the pivot
12 point.

13 Q. So there is some math involved?

14 A. Yeah.

15 Q. Fair to say that the heavier the overall
16 conveyor belt unit is, the more gravitational force we
17 see that holds that in place?

18 A. Certainly, but by the same token, when
19 things are vibrating, there is a mass that -- the
20 momentum goes with the mass, so the vibration of
21 something heavy can overcome that. So it's not always
22 the case that the heavier it is, the more it stays in
23 place. It depends on the vibration.

24 Q. Okay. Have you sought to quantify how
25 heavy the McLaughlin conveyor belt unit should be to

1 adequately secure the conveyor belt unit during
2 operation?

3 MR. FELDHAKE: Objection. Form. Scope.

4 A. I've not tried to do that, no.

5 Q. (By Mr. Hart) If we come back to the
6 possibility of using a latch, as you describe with
7 reference to Claim 10, would using a latch to secure
8 that conveyor belt unit allow a system designer to
9 maintain a lower weight for the conveyor belt unit
10 without risking it popping out during operation?

11 A. I don't believe so. As I mentioned before,
12 with vibration it's not weight alone that you would be
13 worried about. Heavier things can have -- present
14 frequencies that would cause it to pop out. So it's
15 not purely a weight issue.

16 Q. Is there one ideal weight regardless of
17 whether some mechanical structure like a latch exists?

18 A. Not that I'm aware of, no.

19 Q. Okay.

20 A. I mean, certainly not -- not in general.

21 Q. And so as a system designer, there are many
22 design considerations that must be accounted for when
23 choosing the overall weight of that conveyor belt
24 unit; is that correct?

25 A. I wouldn't say it's overly complicated. I

1 think, you know, generally speaking, these things are
2 pretty straightforward mechanically. So all things
3 that are well within what a person of ordinary skill
4 would normally do when designing something.

5 Q. If we scroll down to paragraph 231, you
6 state: "Additionally, a person of skill in the art
7 would have been aware of other prior art that teaches
8 toolless installation and removal.

9 For example, Lee states that, quote, no
10 tools are required to remove the conveyor assemblies
11 40A and 40B, which facilitates the cleaning and
12 maintenance of both the conveyor assemblies 40A and
13 40B as well as the platen 26."

14 Do you see that?

15 A. I didn't, actually. I wasn't able to catch
16 up with you. Could you tell me where that is again?

17 Q. Sure. So paragraph 231, just below where
18 we were reading.

19 A. I'm there now.

20 Q. Okay. You note that a person of skill in
21 the art would have been aware of other prior art that
22 teaches toolless installation and removal, and then
23 you discussed the Lee reference.

24 Do you see that?

25 A. Yes, I do.

1 Q. Have you proposed modifying McLaughlin's
2 structure pursuant to the teachings of Lee?

3 A. I don't know that I offered it in the
4 report, but it's certainly a very straightforward
5 thing to do to add a latch.

6 Q. Well, let me ask a broader question there.
7 What is the relevance of Lee to your opinion regarding
8 Claim 16 in McLaughlin?

9 A. Just that it's well-known in the art to
10 have things that can be moved without the use of a
11 tool.

12 Q. What is the Lee reference describing?

13 A. Let me go back and take a look.

14 Generally, it's describing a conveyor
15 toaster.

16 Q. Are those conveyors in Lee oriented
17 horizontally like McLaughlin?

18 A. No, they're -- as configured, they're shown
19 vertically.

20 Q. Have you identified any prior art conveyors
21 that are horizontally oriented like McLaughlin and
22 that are expressly secured only by gravity?

23 A. I don't recall, but certainly I know in my
24 own personal experience in working with food
25 production systems that have long conveyors that go

1 through the factory, there are sections that you can
2 move by hand to get through. It's gated, and that's
3 done purely by gravity.

4 Q. And you didn't discuss any of those in your
5 declaration; correct?

6 A. No. Again, it's pretty obvious to someone
7 of skill in the art that you don't always need to use
8 a tool if you want to be able to move something easily
9 by hand.

10 Q. Let me make sure that I understand your
11 last answer. You said it's pretty obvious to someone
12 of skill in the art that always need to use a tool if
13 you want to be able to move something easily by hand?

14 A. No, I think the record isn't correct.
15 Yeah, so it's pretty obvious to someone of skill in
16 the art that if you want to -- that if there is
17 something that is going to be moved a lot, and you
18 don't need a tool, there is no reason to use a tool if
19 you don't have to, unless there is a special reason,
20 because you want it locked or you want to prevent
21 something from happening. But if you don't need a
22 tool, you don't -- you don't add that unless you have
23 to.

24 Q. Can I have you scroll up to paragraph 50 in
25 your declaration, Exhibit 1003.

1 A. I'm there.

2 Q. Okay. You state in paragraph 50:
3 "McLaughlin is owned by Petition Provisur
4 Technologies, Inc., and Provisur marked some of its
5 products on its website with McLaughlin," and then you
6 cite Exhibit 1019.

7 Do you see that?

8 A. I do.

9 Q. Exhibit 1019 is titled "Provisur Patents
10 Webpage." Do you know whether any of Provisur's
11 products embody the McLaughlin invention?

12 MR. FELDHAKE: Objection. Form and scope.

13 A. Yeah, I've not studied the physical
14 products, so I don't know other than what has been
15 represented in Exhibit 109 -- 119 -- 1019. Sorry.

16 Q. (By Mr. Hart) Okay. Would you have wanted
17 to see how Provisur implements McLaughlin's conveyor
18 belt unit in its commercial products?

19 A. It doesn't have any relevance in my
20 analysis of the patents in the suit.

21 Q. And why does it not have any relevance?

22 A. Because I'm looking at what McLaughlin
23 teaches a person of skill in the art and how that
24 person would apply it. How Provisur chose to play,
25 it's their choice. It's one of many ways. It's not

1 the only way.

2 Q. So it's of no relevance to you whether
3 Provisur left the conveyor belt unit described in
4 McLaughlin unsecured or secured only by gravity in its
5 commercial products; correct?

6 MR. FELDHAK: Same objections.

7 A. Yeah, I would understand that that's a
8 design choice.

9 Q. (By Mr. Hart) Are you aware of any
10 commercial embodiments from Provisur that implement
11 McLaughlin's conveyor belt unit that do leave that
12 unit unsecured and held in place by gravity alone?

13 MR. FELDHAK: Objection to form and scope.

14 A. I've not looked at that question.

15 MR. HART: Why don't we take a quick break.
16 I've got a -- I'm at a good breaking point here.

17 MR. FELDHAK: Okay. Let's go off the
18 record.

19 MR. HART: I'm sorry, Mitch, I spoke over
20 you. What'd you say?

21 MR. FELDHAK: I said let's go off the
22 record.

23 MR. HART: Sounds good. Ten minutes?

24 MR. FELDHAK: Yeah, ten minutes.

25 (Break taken from 9:52 a.m. to 10:02 a.m.)

1 Q. (By Mr. Hart) All right. Back on the
2 record. Dr. Collins, I'd like to move on to Konishi.
3 I believe Konishi is the other base reference that you
4 spent a lot of time discussing in your declaration.

5 Can we turn to paragraph 41 in your
6 declaration, Exhibit 1003, to discuss the Konishi
7 reference.

8 A. I'm there.

9 Q. All right. In paragraph 41, you state:
10 "Konishi is directed to a belt conveyor used to
11 transport a product from one station to another, with
12 the ability to measure the weight of the product while
13 on the conveyor."

14 Do you see that?

15 A. I do.

16 Q. So like McLaughlin, Konishi also includes
17 some means to weigh food product while that food
18 product is being conveyed; correct?

19 A. My recollection is typically that these are
20 not weighed while they're moving. So they can be
21 weighed and moved, but not necessarily -- due to that
22 constraint, but they don't have to be weighed while
23 moving.

24 Q. That was an unintentional additional
25 limitation that got inserted into my question. So

1 Konishi's system can weigh the product while the
2 conveyor belt is stationary or moving, and then it can
3 separately move that food product from one point to
4 another; correct?

5 A. Correct.

6 Q. In paragraph 45, if you scroll down a page
7 or two, you have an annotated version of Konishi's
8 Figure 9 and another annotated version of Konishi's
9 Figure 8. Do you see those on page 24?

10 A. I do.

11 Q. Here you've annotated Konishi's conveyor
12 belt unit in yellow; correct?

13 A. That's correct.

14 Q. Where is the component in Konishi's system
15 that measures weight?

16 A. And I have to go back and take a look at
17 Konishi.

18 Yeah, so it's a weight -- we call it a
19 weight detector, at 34.

20 Q. What components that we see in your
21 annotated Figure 9 are included in the weight measured
22 by weight detector 34?

23 A. It would -- it's everything there with the
24 exception of -- if you look -- a little harder to
25 describe, but if you look to the right of the weight

1 detector 34, there is a vertical stanchion which is
2 then -- goes to a plate, which is then on the platform
3 6. So the platform 6, the little horizontal bar and
4 then the vertical bar at 35, those are not being
5 weighed.

6 Q. Everything else?

7 A. Everything else is being weighed.

8 Q. Very good. Including -- well, let me start
9 over.

10 The conveyor belt unit you've annotated
11 yellow is part of the structure that is weighed by
12 weight detector 34; correct?

13 A. Correct.

14 Q. As we discussed, with respect to the
15 McLaughlin reference, would you agree that a POSITA
16 would have been motivated to minimize the weight of
17 the conveyor structure you've highlighted in yellow in
18 order to improve the accuracy of measuring food
19 products in the Konishi system?

20 A. I'll give the same answer that I gave
21 before, is that there are a lot of factors, that you
22 want to make sure you've got enough structural
23 integrity for everything to work properly, but
24 certainly you want to make it, you know, as light as
25 is reasonable.

1 Q. If we scroll down to paragraph 46, just
2 below those annotated figures, you state: "Konishi
3 teaches that its subframe is, quote, made simple and
4 lightweight, making it easy to attach and detach from
5 the frame...and maintenance of each mechanical part
6 can be easily performed."

7 Do you see that?

8 A. I do.

9 Q. Do you agree that Konishi's conveyor belt
10 unit should be sufficiently lightweight in order to
11 facilitate easy removal and reinstallation?

12 A. You certainly want to make it lightweight
13 enough to be able to move it.

14 Q. I'm going to scroll down a bit to your
15 toolless removal opinion with respect to Konishi.

16 Can I have you scroll to paragraph 115 in
17 your declaration, Exhibit 1003.

18 A. Okay. I'm there.

19 Q. Okay. So this relates to Dependent Claim
20 16. You state: "Konishi discloses the apparatus in
21 accordance with Claim 1, wherein the conveyor belt
22 unit is configured to be removed and/or installed
23 without tools. The removal process described in
24 paragraphs 33 through 41, and nowhere does the removal
25 process describe or require the use of tools."

1 Do you see that?

2 A. Yes, I do.

3 Q. How is Konishi's conveyor belt unit secured
4 to ensure it does not pop out of place during
5 operation?

6 A. Again, the comb- -- it's the same as
7 before. It's the combination of the weight that holds
8 it in place and friction.

9 Q. So if there are no other mechanical
10 components added beyond what we see in the figures of
11 Konishi, it's gravity and friction that ensures the
12 conveyor belt unit does not pop out of its slots;
13 correct?

14 A. That's correct.

15 Q. You agree that Konishi is compatible with
16 mechanical components like latches that could hold it
17 in place during operation?

18 A. Certain latches are well-known in the art.

19 Q. Would using a latch to hold Konishi's
20 conveyor belt unit in place during operation allow a
21 designer to use a lighter weight conveyor belt unit
22 structure, without risking it popping out during
23 operation?

24 A. I don't see the correlation between the
25 two. I see a latch as a design choice, and you may

1 chose to do it to hold it in place against things like
2 vibration or inadvertently having someone bump into
3 it. So there are a wide variety of things, and I
4 don't see the weight as being particularly important
5 for all of them. Or a factor, I should say.

6 Q. If we -- if we consider the -- Konishi's
7 conveyor belt unit of a specific weight -- whatever
8 that weight may be -- in Case A, we assume the
9 conveyor belt unit holds itself in place by gravity
10 alone; Case B, we add a latch, as you've opined with
11 respect to Claim 10 that it would have been obvious to
12 add a latch.

13 What benefit does that latch provide above
14 just relying on gravity alone?

15 A. It prevents the accidental motion of that
16 device in the -- to the release -- in the release
17 direction.

18 Q. Popping up out of that vertically oriented
19 slot; correct?

20 A. Correct.

21 Q. Okay. And if you have a latch in place
22 that prevents the conveyor belt unit from popping up
23 out of that vertically oriented slot, could you use a
24 lower weight conveyor belt unit with less
25 gravitational force?

1 A. Again, I wouldn't see the direct
2 correlation because if it's moving under vibration,
3 the mass will determine how much it moves under
4 vibration and whatever the resonant frequency is, so I
5 don't see that there is a direct correlation.

6 Q. I'd like to switch gears a little bit and
7 explore your opinions related to Claim 22, and I'd
8 like to start with your opinions that Konishi and
9 Lindee render obvious Claim 22. Can I have you scroll
10 down to paragraph 173 in your declaration,
11 Exhibit 1003.

12 A. I'm there.

13 Q. All right. And here you set forth a theory
14 that -- and correct me if I'm wrong -- that Konishi
15 and Lindee render obvious Independent Claim 22 of the
16 47 patent; is that right?

17 A. That's correct.

18 Q. What specific modifications to the Konishi
19 system are you proposing in the Claim 22 mapping here?

20 A. Well, I described it in the report, but
21 kind of the shorthand is -- is basically adding a
22 second lane by kind of mirror imaging the drive, the
23 drive assembly.

24 Q. Is it a -- an entire additional conveyor
25 belt structure or just a second motor on the other

1 side of Konishi's conveyor belt structure?

2 MR. FELDHAKE: Objection to form.

3 A. Well, it's a conveyor belt assembly that
4 includes a motor, with two independent lanes.

5 Q. (By Mr. Hart) Would that require adding
6 additional conveyor belt structure to what is natively
7 described in the Konishi reference?

8 A. It would be replicating one drive mechanism
9 and mirror imaging it as a second drive mechanism.

10 Q. In paragraphs 180 to 183, you discuss the
11 motivations to modify Konishi pursuant to Lindee. Do
12 you see those?

13 A. I see those, yeah.

14 Q. The first large paragraph there, 181, you
15 state: "A person of skill in the art would have known
16 that a second lane and a second drive would have
17 increased production and throughput."

18 Do you see that?

19 A. I do.

20 Q. Have you identified any other specific
21 benefits that would be realized by adding a second
22 lane and second drive to Konishi?

23 MR. FELDHAKE: Objection to form.

24 A. Certainly, I talk about here the fact that
25 each lane can then be independently optimized, which

1 would impact yield in addition to throughput. And I
2 don't know that I mentioned it here, but also because
3 it's -- they share some common components, the overall
4 throughput per square footprint would be a benefit.

5 Q. (By Mr. Hart) Is it necessary to add a
6 second motor and a second lane to run two lanes of
7 product through Konishi's slicing machine -- or, I'm
8 sorry, through Konishi's conveyor belt apparatus?

9 MR. FELDHAK: Objection. Form.

10 A. No. You can run two lanes, but those
11 lanes, without the second drive, would not be
12 independent.

13 Q. (By Mr. Hart) So it's the control over
14 independent lanes that is the benefit distinct from
15 merely increasing throughput in production; correct?

16 A. It's control that does allow optimization
17 for each lane, which then optimizes throughput and
18 yield.

19 Q. Why does the independent control optimize
20 throughput and yield?

21 A. Because depending on the conditions in each
22 lane, you can adjust speeds to optimize performance in
23 each lane independently.

24 Q. I'd like to talk about Lindee's teachings
25 that you relied on in this combination. In paragraph

1 177, if we scroll up a few pages, you note that:
2 "Lindee discloses a slicing machine with two
3 independently driven tracks, those motors on either
4 side of the two independently driven tracks, described
5 as a dual independent feed slicer."

6 Do you see that?

7 A. I -- I see 177. I don't know where you are
8 reading. I --

9 Q. Just the prior sentence.

10 A. I'm sorry. I interrupted.

11 Q. That was the very first sentence in the
12 paragraph. And if we scroll down to the next page,
13 still within paragraph 177, you have an annotated
14 version of Lindee Figure 1. Do you see that?

15 A. I do.

16 Q. What are the independent dual-motor
17 components that you are identifying in Lindee? What
18 is their role in Lindee's overall system?

19 A. They operate the feed conveyor into the
20 slicer, and that is shown on Figure 6 from the Johnson
21 reference that's included by reference.

22 Q. So they push the food product into the
23 slicing blade?

24 A. That's correct.

25 Q. And then once sliced, where do the sliced

1 food products go in Lindee?

2 A. I believe it's conveyor 130, but I'd have
3 to go back and double-check.

4 Do you want me to compare them and check
5 that?

6 Q. Yes, please.

7 A. Yeah, on 130, which is called the jump
8 conveyor.

9 Q. And does that jump conveyor 130 have
10 multiple motors?

11 A. I don't believe so. Well, there are
12 multiple actuators.

13 Yeah, the conveyor has a number of
14 different actuators.

15 Q. The portion of conveyor 130 that conveys
16 food product, is that conveyor portion driven by more
17 than one motor?

18 A. Well, the conveyor 130 moves in several
19 different directions. So I'm not sure how to answer
20 your question.

21 Q. Sure. So if we go to Figure 3 in Lindee --
22 do you have Lindee open?

23 A. I do.

24 Q. Okay. Can you go to Figure 3 with me.

25 A. I can see that.

1 Q. Give me one second. Let me just make sure
2 I'm synced up.

3 So Figure 3 illustrates conveyor 130 that
4 we were just discussing; correct?

5 A. I believe so, but I don't see 130
6 referenced here, but I -- I believe so.

7 Q. And it is on an arm that allows the surface
8 of or the structure of conveyor 130 to be moved in
9 space underneath that slicing blade; is that right?

10 A. There is a motor that drives the conveyor
11 in Figure 3.

12 Q. Okay. Do you understand the operation of
13 conveyor 130 and why it's on that arm 270?

14 A. Certainly, I think maybe a better figure to
15 look at is Figure 4 because that describes what I was
16 talking about. So the conveyor has a number of
17 degrees of freedom. There is the conveyor itself,
18 which is driven by the motor through that coupling
19 arm, telescoping arm 270. That drives the belt that
20 runs the conveyor, but then there are motors that
21 allow that conveyor system to move, relative to the
22 picture, left to right and up and down. So there are
23 a number of different actuators for Lindee.

24 Q. I don't believe -- and correct me if I'm
25 wrong -- I don't believe you have relied on the

1 teachings from Lindee that allow a conveyor belt
2 surface to be moved in space. You're not proposing
3 any of that functionality is added to Konishi; is that
4 right?

5 MR. FELDHAKE: Objection. Form.

6 A. I'm not sure how to answer that because I
7 kind of look at all of the teachings here. So I don't
8 know how to answer that question.

9 Q. (By Mr. Hart) Well, is it part of your
10 obviousness analysis that Konishi's system would have
11 benefited from having a conveyor surface that could be
12 moved in space like conveyor belt 130 in Lindee?

13 MR. FELDHAKE: Same objection.

14 A. Well, it basically -- you know, there is a
15 benefit of it effectively creates a wider conveyor
16 than just the physical size of the unit itself.

17 Q. (By Mr. Hart) Now, I don't believe that
18 answered my question.

19 Is it part of your obvious analysis that
20 Konishi's system would have benefited from having a
21 conveyor surface that can be moved in space like
22 conveyor belt 130 in Lindee? Have you discussed that
23 aspect of Lindee?

24 MR. FELDHAKE: Objection. Form.

25 A. Yeah, as I think about it, my recollection

1 is one of the claimed elements was a width requirement
2 of the conveyor, and Lindee basically teaches how to
3 create a wider conveyor -- a virtually wider conveyor
4 by allowing it to move left to right, side to side,
5 and relative to the direction of travel.

6 Q. (By Mr. Hart) Can you think of any other
7 relevance to the side-to-side movement in Lindee's
8 conveyor 130 that you may have discussed in your
9 declaration?

10 A. Not off the top of my head, no. But with
11 that said, it certainly would have been -- looking at
12 Figure 4, it would have been obvious to add -- if they
13 wanted to add a dual conveyor, I'd just mirror
14 image -- I split the conveyor and I mirror image the
15 assembly everywhere from, I guess, 272, 270, 282, that
16 whole assembly, 288, and I just mirror that on the
17 other side of the conveyor if I wanted two lanes.

18 Q. The purpose of the movable conveyor 130 in
19 Lindee is to catch food product that is being sliced
20 by the slicing blade; correct?

21 A. I'm not sure what you mean by catch, but
22 certainly, the slices land on that jump conveyor.

23 Q. And it moves around to create patterns of
24 sliced product?

25 A. That's correct.

1 Q. Konishi does not have a slicing mechanism
2 and it's not a slicing machine, is it?

3 A. Well, no, it is not -- the embodiment is
4 not in a slicing machine.

5 Q. Have you relied on any dual-motor
6 arrangements in Lindee below the slicing blade?

7 MR. FELDHAKE: Objection to form.

8 Q. And let me rephrase that.

9 Specifically with respect to your obvious
10 analysis that combines Konishi and Lindee, have you
11 relied on any dual-motor arrangements below the
12 slicing blade?

13 A. Well, I don't believe that the teachings
14 that Lindee have, a person of ordinary skill would not
15 limit that to something above the slicing blade. As I
16 just described, kind of looking at Figure 4 in
17 comparison to the figure out of Johnson, you know,
18 just mirror imaging the drives allows you to have two
19 conveyors, two independent conveyor tracks, operate
20 side by side.

21 Q. I'm asking specifically about what you've
22 set forth in your declaration. Have you relied on or
23 discussed any dual-motor arrangements from Lindee for
24 purposes of your Claim 22 obvious analysis?

25 A. In thinking about my declaration, when I go

1 back, I don't think I did, but it would have been
2 obvious.

3 Q. And the dual-motor arrangement that you did
4 discuss expressly in your declaration is a food
5 conveyor portion that is above the slicing blade; is
6 that correct?

7 A. That's correct.

8 Q. It's true that once the food in Lindee,
9 once the food is sliced, it's caught by conveyor --
10 movable conveyor 130, it is then passed along
11 additional conveyor belt units; is that right?

12 A. That's correct.

13 Q. Do any of those additional conveyor belt
14 units below, downstream of 130, include multiple
15 motors?

16 A. I don't believe so. But there is nothing
17 preventing it from having multiple motors.

18 Q. I'd like to transition to your other
19 Claim 22 theories related to the McLaughlin reference.
20 Can I have you scroll down to paragraph 234 in your
21 declaration, Exhibit 1003.

22 A. I'm there.

23 Q. Now, in -- I was not. Give me one second.

24 (Off the record discussion.)

25 Q. All right. Very good. We are back on the

1 record after a brief technical mishap, and I was
2 directing you, Dr. Collins, to paragraph 235 in your
3 declaration. I'm sorry. It looks like our discussion
4 of 234 did not make it on the transcript. Let me
5 start at up at 234 just to recover a little bit of
6 ground that we were covering.

7 So 234 begins in analysis of the McLaughlin
8 reference. And correct me if I'm wrong, you have
9 offered an opinion that Independent Claim 22 would
10 have been obvious in view of McLaughlin in the
11 knowledge of a person of skill in the art; is that
12 correct?

13 A. Correct.

14 Q. I'd like to go down to paragraph 235.
15 Before I read that into the record, you agree that the
16 McLaughlin conveyor belt you've mapped in your
17 declaration does not expressly include two motors
18 driving that conveyor belt; correct?

19 A. Not expressly correct, which is why it's an
20 obvious and not an anticipation.

21 Q. Okay. So 235 in your declaration, you
22 state: "A person of skill in the art would understand
23 many benefits could be recognized by adding a second
24 lane. For example, a second lane with a second drive
25 would increase production by allowing a second food

1 loaf, sliced food product, or object to be conveyed.

2 As another example, a second lane with a
3 second drive would increase throughput by essentially
4 doubling the number of conveyed food load objects that
5 would be conveyed at any given time?"

6 Do you see that?

7 A. I do.

8 Q. Have you identified any benefits to adding
9 a second motor and a second lane to McLaughlin other
10 than the ability to process two lanes of food product
11 rather than one?

12 A. Well, I think inherent in saying being able
13 to process two lanes, that you're processing two lanes
14 with high yield. So you don't want to have -- you
15 know, treat both lanes the same unless the food is
16 exactly the same. So providing independent control
17 gives you that ability to have throughput with the
18 required level of yield.

19 Q. Have you discussed independent control with
20 respect to Claim 22 in McLaughlin?

21 A. I'd have to go back and take a look. I
22 don't recall, but it's pretty clear that that's what
23 you want to be able to do.

24 Q. You agree that McLaughlin's conveyor belt,
25 as it exists expressly in the reference, with one

1 motor, could support two tracks of food product?

2 A. Yes, it could, but again, I think it needs
3 some other mechanism to make sure that you're
4 optimizing the processing of that to get the yield
5 that you need.

6 Q. In that other mechanism, as you've
7 described, is independence, independent control of two
8 separate tracks; is that right?

9 A. As an example, correct.

10 Q. Have you discussed any other examples of
11 how to optimize the throughput?

12 A. No, but I'm sure there are others.

13 MR. HART: Dr. Collins, I appreciate your
14 time. That's all I have for you today.

15 THE WITNESS: Okay. Thank you.

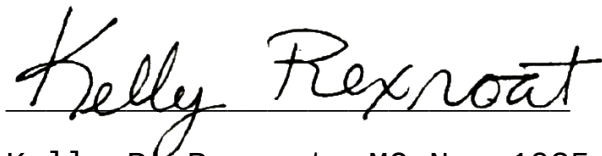
16 MR. FELDHAKE: And I have no questions.

17 MR. HART: All right. Thanks, Mitch and
18 Dr. Collins and Kelly.

19 (Deposition proceedings concluded at 10:41 a.m.)
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1 CERTIFICATE OF REPORTER

2
3 I, Kelly R. Rexroat, a Certified Court
4 Reporter (MO and AZ), Certified Shorthand Reporter
5 (KS), Registered Professional Reporter, within and for
6 the State of Missouri, do hereby certify that the
7 witness whose testimony appears in the foregoing
8 deposition was duly sworn by me; that the testimony of
9 said witness was taken by me to the best of my ability
10 and thereafter reduced to typewriting under my
11 direction; that I am neither counsel for, related to,
12 nor employed by any of the parties to the action in
13 which this deposition was taken, and further that I am
14 not a relative or employee of any attorney or counsel
15 employed by the parties thereto, nor financially or
16 otherwise interested in the outcome of the action.

17
18 

19 Kelly R. Rexroat, MO No. 1025

20 KS No. 1479, AZ 50940
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