UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

INTUITIVE SURGICAL, INC.,
Petitioner,

v.

ETHICON LLC,
Patent Owner.

Case IPR2018-01247 (Patent 8,479,969 B2)
Case IPR2018-01248 (Patent 8,479,969 B2)
Case IPR2018-01254 (Patent 8,479,969 B2)

Record of Oral Hearing
Held: October 17, 2019

Before JOSIAH C. COCKS, BENJAMIN D. M. WOOD, and MATTHEW S. MEYERS, *Administrative Patent Judges.*

APPEARANCES:

ON BEHALF OF THE PETITIONER:

STEVEN KATZ, ESQ.
ROGER A. DENNING, ESQ.
RYAN O'CONNOR, ESQ.
Fish & Richardson P.C.
601 Lexington Avenue, 52nd Floor
New York, NY 10022-4611
212-765-5070

ON BEHALF OF THE PATENT OWNER:

ANISH DESAI, ESQ.
CHRISTOPHER PEPE, ESQ.
CHRISTOPHER MARANDO, ESQ.
Weil, Gotshal & Manges LLP
767 Fifth Avenue
New York, NY 10153-0119
212-310-8000

The above-entitled matter came on for hearing on Thursday, October 17, 2019, commencing at 9:04 a.m., on the 9th Floor of USPTO Madison Building East, 600 Dulany Street, Alexandria, Virginia.

P R O C E E D I N G S

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(Proceedings begin at 9:04 a.m.)

JUDGE WOOD: Good morning.

MR. DESAI: Good morning, Your Honor.

MR. DENNING: Good morning.

JUDGE WOOD: This is the oral argument for IPR2018-01247, IPR2018-01248, IPR2018-01254 and IPR2018-01703.

Will counsel for Petitioner please introduce themselves?

MR. DENNING: Good morning, Your Honors. My name is Roger Denning from Fish & Richardson on behalf of Petitioner, Intuitive Surgical. I have with me today my two partners, Steve Katz and Ryan O'Connor, who will also be arguing. And then I have Eming May (ph), the inhouse IP attorney from Intuitive Surgical.

JUDGE WOOD: All right. Thank you, Mr. Denning.

MR. DENNING: Thank you.

JUDGE WOOD: Will counsel for Patent Owner please introduce themselves?

MR. DESAI: Good morning, Your Honor. Anish Desai, from Weil Gotshal on behalf of Patent Owner. With me is Chris Pepe, who will be arguing as well, and Chris Marando.

JUDGE WOOD: All right. Thank you, Mr. Desai.

According to the hearing order, we will proceed

first with IPR2018-01247, -01248, and -01254, which all involve the same patent.

Both sides will have 60 minutes. Petitioner proceeds first to discuss its case and may reserve rebuttal time to reply to Patent Owner's arguments. Patent Owner then proceeds with its case and may reserve rebuttal time to sur-reply to Petitioner's reply.

Following completion of the oral argument as to those cases, we will proceed with IPR2018-01703, following a short break, if the parties request it.

Before we begin, I believe Patent Owner has marked some demonstratives as confidential. I'd like to remind the parties that this is a public hearing. To the extent that confidential information is discussed, we will need counsel to be aware that it's public, and that any information that will be made public. And to the extent that counsel wishes to keep that information confidential, we will need to close the hearing for that information. So in other words, counsel needs to let the Panel know in advance of discussion of any confidential information.

MR. DESAI: Your Honor, I believe we've discussed this before the hearing, and there's not going to be any issue. We're okay. Both sides are okay with proceeding on the public record.

JUDGE WOOD: Okay. Thank you very much.

With that said, Mr. Denning, you may proceed when you're ready.

MR. DENNING: Thank you, Your Honors.

I'd like to -- I think we're going to go about 40 minutes and reserve 20 minutes for our rebuttal, if that's okay with Your Honors. We are connecting to our presentation right now.

So, Your Honors, I plan to address the first issue, maybe the threshold issue in the case, is as to whether the Certificate of Correction language, or the original language, or both should be subject to the Board's determination in this IPR. And then I'm going to turn it over to my colleagues, Mr. Katz and Mr. O'Connor, to argue the merits of each of those three IPRs, I think starting with Prisco, and then going to Giordano, and then going to Timm Anderson.

JUDGE WOOD: Mr. Denning, before you proceed further, pardon the interruption, but I would like to remind counsel that we have a judge -- Judge Meyers is remotely connected to the hearing. So for the benefit of Judge Meyers and the record, please identify all slides by slide number as you proceed.

JUDGE MEYERS: Thank you.

JUDGE WOOD: And you may proceed.

MR. DENNING: Thank you. We'll do so.

Good morning, Judge Meyers.

JUDGE MEYERS: Good morning.

MR. DENNING: So Ethicon is trying the Board from considering the validity of Claim 24 of the '969 Patent in either its corrected or its original form. On the one hand, Ethicon argues that the Board can't consider the corrected claim language of Claim 24 because a District Court Judge in an Interlocutory Order found that the PTO never should have issued the Certificate of Correction in the first place.

JUDGE WOOD: Counsel, what was the basis for the District Circuit finding that?

MR. DENNING: So --

JUDGE WOOD: Why did they determine that?

MR. DENNING: So a little bit of history in that case. Judge Stark in the District of Delaware, in a Markman claim construction proceeding, looked at the original claim language, construed the original claim language. Ethicon had asked him to construe the claim language consistent with the Certificate of Correction for the same reasons that they argued to the Patent Owner, and Judge Stark declined to do that, and said, No, I'm going to construe it as distal, not proximal. And distal means distal; it doesn't mean proximal. And then he entered the claim construction order.

JUDGE MEYERS: And that was your position in the District Court at that time, correct?

MR. DENNING: That's correct. And --

JUDGE MEYERS: And you, too, have flip-flopped also, correct?

MR. DENNING: That's not true, Your Honor. We have always maintained that the Certificate of Correction never should have issued in the Patent Office, and we believe that to this day; the Certificate of Correction never should have issued.

It did issue. It was in the claim language when we filed this IPR petition. So in our petitions, all three of them, we addressed both the corrected claim language and the original claim language because we knew that we didn't think the Certificate of Correction was appropriately entered. That said, it was in the record, and we felt we had to address it in the IPR petition, so we did. But we did it both ways.

And our argument really is Claim 24 of the '969 Patent is invalid either way. It doesn't matter whether you consider the corrected or the original.

JUDGE MEYERS: Now, in your counterclaim, are you asserting that Claim 24 is indefinite?

MR. DENNING: In the --

JUDGE MEYERS: Without the Certificate of Correction?

MR. DENNING: I would want to concur with my colleagues, but I don't believe so. I'm not counsel in the District Court case. That case has been stayed pending an ITC

investigation. So I'd want to confer on that, but I don't believe we're claiming it's indefinite in light of that.

JUDGE MEYERS: Okay.

MR. DENNING: I think we're taking the position that the original claim language as construed by Judge Stark to mean distal will apply in the District Court case.

But for exactly the reason I said, the Certificate of Correction had issued about five months before Intuitive filed this IPR petition or these three IPR petitions, so, naturally, Intuitive felt we had to address the Certificate of Correction. In fact, it's still in the file history today.

The District Court order, as I said, related only to claim construction. It's not a final judgment; it's an Interlocutory Order. And, in fact, Judge Stark's order on the Certificate of Correction was not necessary for his determination of the claim construction. He gave his claim construction order in December, I believe, of 2018, and then only in February of 2019 issued the order on the Certificate of Correction. It was not necessary -- his order on the Certificate of Correction was not necessary even to his claim construction order, which certainly is an Interlocutory Order, certainly not a final judgment.

So on the one hand, Ethicon is trying to tell the Board, well, you shouldn't consider the corrected language. At the same time, Ethicon is telling the Board that you can't

consider the original claim language either because they say our petition focused too much on the corrected language and not enough on the original claim language, but, in fact, the petition argued both.

This is a one-word change in the claim, distal to proximal, and in each of the petitions, you can see, we've spent one paragraph discussing how the prior art meets the distal limitation, and we spent one paragraph arguing how the prior art meets the proximal limitation, amongst the discussion of all the other limitations of Claim 24 of the '969 Patent. They were both treated side by side, one paragraph right after the other in the original petition. We focused on it in a fulsome manner in our reply brief, but building only on the arguments that were in the original petition. No new prior art, no new arguments; simply expanding on the arguments that we had made previously.

Okay. So if we could go to Slide 3, Mr. O'Connor.

So this is just a recap of what I said on the history relating to the Certificate of Correction. It took effect six months -- five months and some weeks after the IPR -- before the IPR petitions were filed, that's why we addressed the corrected language in the IPR petition, even though we believed at that time and put in a footnote in the petition here, and we're arguing in the District Court that we didn't think the certificate was properly granted. But we

still argued the language because that was in the file wrapper at the time, and it still is, by the way.

Ethicon has filed nothing with the Patent Office to correct the Certificate of Correction and say it's not right. They've filed nothing with the PTAB, with the Board, asking you to invalidate the Certificate of Correction. It's still there. From a public notice perspective, anybody pulling up the '969 Patent, pulling up the file wrapper is going to see the Certificate of Correction in effect in the '969 prosecution history. So that's why we think it's proper for the Board to consider the corrected language of the '969 Patent.

There's no collateral estoppel here in their sur-reply brief. Ethicon argued that collateral estoppel should prevent us from considering the corrected language of the claim. That's not true for two reasons.

And Mr. O'Connor, if you can go to the next slide. One more after that, please.

Collateral estoppel requires a valid and final judgment, Step 2 in this case, cited by Ethicon. It also requires that the determination be essential to the judgment. Here, there certainly was no final judgment in the District Court. At best, it's a claim construction order, an interlocutory claim construction order, not a final judgment. That case is stayed. It never really got beyond the claim

construction stage.

And as I mentioned a moment ago, the Certificate of Correction Order is not essential to the judgment. It's not even essential to the claim construction order. Judge Stark entered that months before he entered his Order on the Certificate of Correction.

Ethicon may argue that they waived their right to appeal Judge Stark's Order on the Certificate of Correction. That's of no moment here whatsoever. First of all, they wait until after Petitioner filed the reply brief to file a Notice of Waiver of Appeal in the District Court. But second of all, that's meaningless. It doesn't change the fact that Judge Stark's order is not a final judgment or that the order is -- was not necessary for his claim construction order.

Secondly, moving to the original claim language, the uncorrected claim language, Ethicon has filed a motion to strike and said that the reply brief went beyond the arguments made in the original petitions, and, therefore, the Board shouldn't consider the original claim language of the -- Claim 24 of the '969 Patent either. In essence, they're trying to stop the Board from ever considering the validity of the original claim language of Claim 24. But, in fact, the IPR petition addressed both, as I said, side by side in the petitions, addressed both arguments under the distal and the proximal.

The reply brief simply expanded on those arguments, and I think the operative case here is the Ericsson v Intellectual Ventures case, Federal Circuit case. I can give you the cite. It's 901 F.3d 1374, and in that case, the Federal Circuit reversed a Board's decision not to consider arguments in the reply brief when the Federal Circuit found the Petitioner had raised the arguments in the petition and that there were significant intervening events that made those issues more relevant in the reply, and, therefore, justified the more attention that they got in the reply.

I'd submit that certainly is the case here. Petitioner's response focused almost entirely on the original claim language because that came after Judge Stark's order. And so they focused entirely on -- almost entirely on the original claim language, so that naturally was the issue that we responded to in our reply brief.

As the Federal Circuit found in the Ericsson case, Ericsson cites, No new evidence that merely expands on a previously argued rationale. And that's exactly what Intuitive Surgical did in our reply brief. So that should not be stricken and the Court -- the Board should be considering both the reply brief and the original petition.

Unless Your Honors have any additional questions for me, I'm going to turn it over to Mr. Katz to address the Prisco petition. Thank you.

JUDGE WOOD: Thank you.

MR. DENNING: Thank you.

JUDGE MEYERS: Thank you.

MR. KATZ: All right. So I'm just going to take a few minutes to address the Prisco petition.

In this threshold matter, everything you just heard actually doesn't apply to Prisco. Patent Owner has not disputed that Prisco discloses the element to which the Certificate of Correction applies. So that only applies actually to Anderson, Timm, and Giordano.

So Prisco, you know, we submit, is an anticipating reference, and Patent Owner focuses in on the wrist and says, first of all, that Prisco doesn't disclose the wrist, that Prisco says don't use the wrist, and that the combination of Prisco and the incorporated Cooper reference somehow only applies to one of Prisco's embodiments.

Now, none of those arguments hold any water.

So first of all, Prisco does disclose the wrist. There's no question about it. Figure 2B, for example, we show here on Slide 7, it shows the wrist. This is a straight cannula embodiment. But there's no statement in Prisco saying this is limited to that. And we point to Column 16 where it says you can include a moveable wrist mechanism. And it gives the reason why; because it allows an end effector orientation to be changed without changing shaft position. That statement

is a generic statement, and it applies to both Prisco embodiments, what we call the push-pull and the pull-pull embodiments.

One way we know that actually is that the quote we have on the screen here about wrist mechanism is paragraph -- Column 16, Line 38, starting Line 38. The previous paragraph is discussing Figure 7D and relates to the push-pull embodiment. And so this statement, far from being limited to the pull-pull embodiment, is following a description of the push-pull embodiment. So it is a generic statement. It applies to both.

We also point out that, you know, the Patent disclosed both; you can have straight and flexible shafts. And the key here is that the wrist can be used with a flexible shaft. In fact, most of Prisco is about a flexible shaft.

We turn to the next slide, Slide 8. You know, Patent Owner focuses on the non-wrist embodiment. Says, Oh, here's a non-wrist embodiment. It says, Don't use a wrist in the non-wrist embodiment. Well, sure, there are disclosures of embodiments that don't use a wrist. None of that is relevant here because Prisco, as shown in Slide 8 and as we point to in our briefs, clearly shows that a wrist is optional.

And then Patent Owner focuses on the end is not shown language. Well, why is it not shown? Because it's

incorporated by Cooper. Prisco is saying, We're incorporating the wrist from Cooper; we don't need to repeat it all here, that's why we're not showing it. We've already incorporated it. It would be redundant to show all the information.

So it's clearly optional and if it's optional, it's part of the Prisco disclosure.

Go to Slide 9. So on Slide 9, this is now information from Cooper. And so, here, Patent Owner says, Well, wait a minute, Cooper needs to bend sharply because you need to have these five vertebrae. And the simple answer to that is they're focusing on one embodiment, and Cooper has many different embodiments. And so all of their arguments about this bend sharply are, again, irrelevant because they relate to one particular embodiment and not all of them.

So let's see what Cooper says. As we say -- fill on the top here in Column 4, Line 62, it says, you know, The wrist member comprises at least three vertebrae. So at least three. You don't need more. You don't need five. Three is fine. We then cite Column 22, which shows that when you have a coupling between two disc segments, the rotation is typically 45 degrees. So, again, they focus on 180, but, here, it's 45 in one direction, then if you bend in the other, you add another 45, so maybe that's a total of 90 at most.

And, finally, in Column 24, Line 40 to 47 here on Slide 9, you know, we cite that Cooper also says you can have

more than five segments. So the idea that Cooper is limited to a five-segment product that must rotate 180 degrees just isn't true.

Now, in the Figure 19, what we show here, because this figure does show five segments, but we've highlighted in yellow three segments, and that will be consistent with the at least three vertebrae embodiment. And, here, you see, you can build a device that only can pivot 45 degrees; you know, not a sharp bend to 180. It's only 45 in pitch, and then the other two vertebrae would have been 45 in the yaw direction. So even though there's three vertebrae, it only bends 45 in any one direction.

Okay. So Cooper, you know, clearly does not require this bend sharply, which they focus on, and, frankly, even if it did, there's really no evidence that the embodiments can't handle the sharp bend.

So if you go to the next figure -- excuse me -- next slide, which is Slide 10, here, we show the pull-pull embodiment and a push-pull embodiment. And the reason why Figure 8A is demonstrating a shaft with a pull-pull embodiment is -- you'll see there's 802A and 802B. Those are tension rods that do connect to the gripper, and it says that those are used in a pull-pull embodiment, although the Figure 8A also has just generic information that would be applicable to both embodiments, right, which is the concept, that you have a

number of tubes, and you can put different things down the tubes. But in 8A, specifically, because they show the two cables, that's a pull-pull embodiment.

Now, what's interesting is the push-pull embodiment. They focus on the stainless steel .032 inch OD, which stands for outer diameter. And they say, Oh, well, you know, that stainless steel rod can't bend. And, of course, we will demonstrate in a moment that it certainly can bend. They disclose it bending.

But more importantly here is Patent Owner doesn't dispute that the pull-pull embodiment can go through the wrist. And what's interesting here is the pull-pull embodiment uses not one but two of these tube components that are each .032 inches and that bends in two directions. And so you've got the two tubes there that bend pitch to the side, but they also have to bend up and down. And so the idea that Prisco disclosing that these two tubes can bend up and down, even though they're one on top of each other, but yet a single rod that's .032 inches can't bend, just has no support.

Prisco itself clearly is teaching that you have these bendable components. Now, are they stiff? Yes. And we'll get to that in a minute. They're stiff and bendable.

Prisco at length talks about how it's very important to add stiffening members to make sure that the various control components don't kink, but that stiffening member

doesn't preclude using the wrist embodiments, which Prisco says are optional.

Go to the next slide, Slide 11. There's a lot of text here, but I think what's important about here, which is Column 14, Lines 50 to 57 and also at Column 60, Lines 44 to 53, is that Prisco here discloses the importance of stiffening, and this is in the context of the push-pull embodiment. So what we're showing here on Column 14, Line about 50, it says the instrument shaft remains flexible, this is in the push-pull embodiment, so it remains flexible, and that it does have a design stiffness. And it says specifically down below, what you see at Line 55, that they are talking about that you do want to have stiffening along the -- to isolate the push-pull drive lift. So there's no question, this is discussing the push-pull embodiment.

If we go to Slide 11 -- excuse me -- Slide 12, which we now bring the text from 16 -- Column 16 forward, and here it says, you know, it should be understood that the principles describe EG ways of stiffening. So what's it talking about? Let's just be sure we knew what the principles are.

These are the stiffening principles. How do we stiffen this device? And the stiffening principles apply both to the push-pull embodiment and the pull-pull. Right? It's not just one. These are both embodiments.

And then it says specifically that it should also be

understood that these principles, again the stiffening principles, may be adapted to instrument aspects that include a movable wrist mechanism. And so even though you do need a quite a bit of stiffness according to Prisco, Prisco teaches stiffness doesn't mean you don't have a wrist. This line is confirming that even though you're adding stiffness purposely, you can still add the wrist. So the idea that the wrist can only work with one and not the other embodiment has no basis, and Prisco is clearly teaching otherwise.

In fact, our expert says that you can make this combination of the wrist with both embodiments. Their expert says, No, it won't work. But here's the key. Our expert is relying on the teaching of Prisco. Right? Prisco is presumed enabling. Their claims call out, you know, the fact that you can have these embodiments. And so it's presumed enabling. And so their expert didn't come forth with any evidence. It's just this conclusory statement, Oh, it wouldn't work. Well, Prisco says it works, so they cannot rely on just a mere conclusory statement.

So that's the push-pull embodiment. Right? I think we've clearly shown that it applies to both. And I think Your Honors, also, in the Institution decision also cited other passages where Prisco keeps saying wrist is optional, wrist is optional. I mean, there's a number of statements to that effect. So the idea that Prisco suggests that you only use a

wrist with one embodiment, there is no basis for that. Nowhere does Prisco say the wrist would only be used in one of these two type of embodiments.

So there's also -- we have the pull-pull embodiments. So we go to Slide 13. This is an alternate read because they don't dispute that Cooper works with a pull-pull embodiment, and, here, the disputed language is operable communication. And the key here is that the pull-pull embodiment has a shaft gear, which rotates the shaft, and the shaft is connected to the jaws. And the claims say you need to have a gear that controls a selectively movable component.

Well, the jaws are selectively movable components. Why are they selectively movable? Because they move, open and close relative to each other. That's what makes them selectively movable.

And we say the roll gear does control the jaws because they control the roll movement of the jaws. Patent Owner's response is, But they don't open and close the jaws. And our answer to that is, the claim doesn't require that you control opening and closing the selectively movable component. It just says you have to control the selectively movable component, and one of the controls is absolutely to roll the jaws.

And so, alternatively, we do say that in addition to the push-pull embodiment, which undeniably has a gear, the

pull-pull embodiment also has the required gear because of the roll feature that is applied to the jaws for jaws selectively movable.

If Your Honors have no questions, we're going to turn to Giordano.

JUDGE COCKS: Counsel, having just heard everything you said, what specifically is the limitation in the claim that you were directing us to?

MR. KATZ: The limitation for the gear segment?

JUDGE COCKS: Yes.

MR. KATZ: It's Claim 24, and it says at least one gear driven portion that is an operable communication with said at least one selectively movable component portion of said end effector.

So that's part of it. So it has to be an operable communication. And then later on, as -- there's a control element. So at the very end of the claim, it says that the one -- at least one gear driven portion to apply at least one controlled motion to said selectively movable component.

And so what we're saying is the control motion being applied to the jaws is the roll motion of the jaws. It doesn't have to be an open and close control motion. Roll is a control motion of the jaws.

JUDGE COCKS: Thank you.

MR. KATZ: So with that, we're going to turn it over

to our colleague, Ryan O'Connor, who is going to address the Giordano.

MR. O'CONNOR: Good morning, Your Honors.

So as an initial matter, we want to point out that Patent Owner does not dispute that the proposed combinations of Giordano, and Wallace, and Anderson, and Timm disclose every limitation of the claims, part of the corrected claim language. And then as explained in the Petitions and as Mr. Denning mentioned earlier, both combinations also disclose every limitation of the claims under the uncorrected claim language. So I'll address the Giordano-Wallace combination and Mr. Katz will address the Anderson-Timm combination.

For the Giordano-Wallace combination, there's only one disputed limitation. That's the limitation in the uncorrected claim language that requires a tool mounting portion operably coupled to a distal end of the proximal spine portion. Importantly, however, the Patent Owner admits that Giordano's articulation control, that's Element 16, is operably coupled to the distal end of the proximal spine portion. And as explained on Page 27 of the Petition, we explained that the controls of the manually operated surgical tool are removed and replaced by Wallace's proximal housing and driven elements.

So like all of the other controls of a manually operated surgical stapler, the -- Giordano's articulation

control in the primary combination is also a moot to the tool mounting portion of Wallace's surgical tool, so that it could be driven by Wallace's driven elements and also to be remotely controlled.

Ignoring the various motivations to combine that are identified in the Petition and by Dr. Knodel, Patent Owner argues that Wallace would have deterred a person of skill in the art from making the proposed combination of Giordano and Wallace. For example, Patent Owner argues that Wallace teaches remote control, but the proposed combination features a manually operated control knob on the shaft.

If I could have the next slide, Slide 15. As I just explained, in the primary combination, the articulation control is moved into the proximal housing of Wallace's surgical tool. It does not remain on the instrument shaft.

Patent Owner also argues that Wallace would have deterred a person of ordinary skill in the art from making the proposed combination because Wallace's alleged objective is to provide two axis articulation, but the proposed combination only provides one. However, in the primary combination, wherein the Shelton stapler is modified to include Giordano's articulation control and then the resulting device is modified to be used with Wallace's surgical instrument system, the manual device already includes an articulation mechanism, and, therefore, it does not use Wallace's articulation joints.

Instead, a person of skill in the art would have been motivated to make the combination to obtain the benefits of robotic assisted surgery, as disclosed in Wallace.

And Slide 16. Instead, it's only the alternative combination of Shelton and Wallace that uses Wallace's articulation control. But Wallace doesn't deter -- wouldn't have deterred a person of skill in the art from making this combination either for a couple of reasons. The first is that Wallace is not limited to two axis articulation. As shown in the slide, the specification of Wallace specifically discloses that the articulation mechanism could include two rods, and when the two rods are in the same plane, they'll only produce one axis of articulation. And then further on in specification, Wallace confirms that second direction of articulation is optional.

And, finally, on Slide 17, Dr. Knodel, at his deposition, confirmed that there's nothing in Wallace that requires two axis articulation.

If there's no questions, I'll turn it back to Mr. Katz.

JUDGE WOOD: Thank you.

MR. O'CONNOR: Thank you.

JUDGE MEYERS: Thank you.

MR. KATZ: Okay. So, now, I'm just going to address the Timm-Anderson combination. And, again, as Mr. O'Connor

mentioned, the Patent Owner actually doesn't dispute that Timm-Anderson has all the elements under the uncorrected language. The only -- excuse me -- under the corrected language. The only question is whether it has the components under the uncorrected language.

And, here, as we show in Slide 18, there's really no dispute on the operation of Timm, which by the way is a Patent Owner patent -- prior art patent. And their expert has admitted, you know, how it operates. I mean, there is no dispute. What you have is a passive articulation joint with a locking mechanism that has an actuation thing that is pulled, and that causes the ball to expand and lock the joint. There's no dispute about that. And so, in fact, their expert has said that the control line to that locking mechanism operably couples to the articulation joint, which only makes sense.

And so what we're showing here are the figures from Anderson and from Timm on the left-hand side that shows the locking ball joint, which is on the distal end of the proximal spine. And then we show how that's combined with Anderson, which is on the right side of this diagram on Slide 18, which shows the proximal end of the proximal spine portion.

So in the combination the Anderson tool mounting portion is connected to this spine, and the spine would lead to this passive articulation joint, which provides the

coupling.

And if we go to Slide 19, here, we just have the testimony from Dr. Awtar, which is Patent Owner's expert, where we asked him, Is the cable that controls the joint, is it operably coupled to the joint? He says, Yes, I would say the cable in this case is operably coupled to the articulation joint. And the key is this cable comes from the tool mounting portion, right? Things that you drive this tool from the tool mounting portion, that's where you get all the robotic inputs. And so given that the cable comes from the tool mounting portion, it clearly shows there's operable coupling to the distal end of that proximal spine portion.

If we go to the next slide, 20, it's just a portion of the claim. There's an argument in Patent Owner's briefing that somehow the claim requires an active articulation structure, as opposed to passive. The claim says nothing about requiring active articulation. It doesn't require any affirmative control of the articulation joint. What it says is that you need to have an articulation joint. And so, you know, that covers active and passive, and there's really no basis for them trying to read in an active articulation joint into the product.

They also make the argument that while you wouldn't ever, like, combine a passive articulation joint with a robot, we cite in our reply brief one of the Patent Owner's own

patent. I think it's the Griggs (ph) Patent. It's one of the last exhibits we include, which has, as an example -- oh, by the way, you can -- here's a passive articulation joint that can be used either in manual or robotic structures. And so clearly, there's -- it's not as though -- they want to create this illusion that in the industry, nobody would ever think of putting a passive articulation joint on a robot, and there's really just no evidence to that effect.

We'll go to the next slide, Slide 21. We provide a motivation to combine extensively and have a whole bunch of cites on Slide 21, but we just highlight some small particular things here. In Anderson, it specifically mentions stapler probes and -- as one option for the Anderson robot. And Anderson cites a whole bunch of potential end effectors, and they keep using the word, probes. I mean, it's unclear why they're using the word probe, but everything is called a probe. You'll see we have a gripper probe, a stapler probe. And, here, Anderson is teaching that you can have, as one end effector, a stapler probe.

Now, is that a disclosure specifically of an endocutter, as Patent Owner keeps repeating? No. It says staple. But stapler is a generic umbrella that includes endocutters, linear staplers, staplers and cutters, staplers that don't cut. It's a generic statement. So -- but Anderson says, Oh, by the way, our robot would be great with staplers.

It certainly suggests that Timm, which is undoubtedly a stapler, one might want to combine those two.

And then they say, Well, why would you want to use Timm? And while Timm says you have articulation, you offer us dynamic clamping, you can actually control Timm using rotary motion. And so the fit, as we point out in our briefing, it's quite a nice fit.

Timm uses rotary motion to drive its device; Anderson provides rotary motion. They talk at length about, you know, the complexity of making the combination. You know, Timm has some complexity to it; Anderson has some complexity to it. That complexity is irrelevant.

The key issue is that Timm uses rotary drive motions to drive its device; Anderson provides the rotary drive motions. And so the Anderson and Timm working together, rotary to rotary, makes the connection. And so we say one of skill in the art would clearly have both the motivation and a reasonable expectation of success that if I have a robot that generates rotary motions, and I have a device that accepts rotary motions, they will work together.

Another point that they make --

JUDGE COCKS: Counsel?

MR. KATZ: Yes?

JUDGE COCKS: Before you go on, one question. You had highlighted the word, probes, there and then questioned

why they called it that. Why did you call out the word, probes? What's the issue there?

MR. KATZ: Oh, well, the issue is that it doesn't just say stapler. It says stapler probe. And Patent Owner may say, Oh, well, what is a stapler probe as opposed to a stapler? And what I'm saying is they call all of their end effectors probes. It's like -- it's another way of saying stapler end effector. And I think there was some testimony by Dr. Knodel, saying, Yeah, if they're all just probes, they're probing things. We can get a cite for that if you'd like, but I think they ask him about that.

So I'm just simply pointing out that you won't find the word probe in the '969 Patent. And so what I'm saying is that's really a red herring; that the key is it is disclosing a stapler that is an end effector. In all their end effectors, they just call it probes. That's all I'm pointing out there.

If we go to Slide 22. Thank you, Ryan.

So one key issue here is that Timm actually discloses that you can adjust gear ratios. And so they -- Patent Owner makes a big point saying, Oh, well, no one would know how to generate the necessary forces. And we talked about this at the last hearing with similar patents. And the answer is, of course, one with skill in the art knows how to generate the forces. One thing, Timm says it. Timm says you

can adjust the gears to get the mechanical advantage you need. And so one with skill in the art looking to Anderson saying, Okay, I'm having rotary drive, and then I use the gears in Timm to generate the forces I need.

And so Patent Owner says, Oh, well, how would someone know how to do the mechanical advantage? Well, Timm says people know how to do that.

And I'll point out that in the '969 Patent, you know, they don't provide gear ratios. They say one with skill in the art knows how to size gears.

And so they're counting an inconsistent position. They're holding the prior art to a much higher standard than their own Patent delivers because their own Patent doesn't teach one of skill in the art the gear ratios needed to drive their endocutter. It says one of skill in the art would know how to do that, and, likewise, that would apply equally to the prior art.

I think we'd like to save the rest of our time for rebuttal. That's all I have for -- yeah.

JUDGE WOOD: All right. Thank you, Mr. Katz. You will have 23 minutes for rebuttal.

MR. KATZ: Thank you.

MR. DESAI: All right.

JUDGE WOOD: Are you ready to begin, Mr. Desai? Do you wish to reserve surrebuttal time?

MR. DESAI: Maybe ten minutes is fine.

JUDGE WOOD: You may begin when you're ready.

MR. DESAI: Thank you, Your Honors. Good morning.

I just -- I'll quickly start with the Certificate of Correction issue.

We understood Petitioner's reply as arguing that the PTAB -- the Board should evaluate only the corrected claim. That's how we understood their reply, and that you should not address the original claim of the '969 Patent. That's obviously wrong. The District Court has validated the Certificate. The original claim exists. The Certificate is not coming back. The Patent Owner has waived its appeal of that issue, so that would obviously be wrong.

But, now, I think what we heard from Petitioner is saying that you should consider the original claim, and you should consider the corrected claim. And I suppose that's fine with us, if you want to consider the corrected claim. I don't really understand why there's a reason to do that. But -- so I don't -- I'm not sure that there's actually a dispute here anymore.

But as far as whether the Petitions in the -01247 and the -01254 case adequately establish --

JUDGE COCKS: (indiscernible)

MR. DESAI: Sorry?

JUDGE COCKS: So you say that's not a final court

decision --

MR. DESAI: Yeah, I think in our --

JUDGE COCKS: -- in your waiver of the appeal?

MR. DESAI: That's our view. I mean, we cited the restatement about how that's procedurally definite. I mean, that decision is not going to be changed.

And then it was also pointed out the judicial estoppel point, that it's -- that doesn't require a final judgment for Patent Owner to prevent Petitioner from flip-flopping positions and asking the Board to only address the corrected claim. I mean, I think judicial estoppel here is clear, and that would prevent Petitioner from saying, Oh, well, you know what, we changed our minds. We only want to deal with the corrected claim.

But, again, I think as far as whether the Petitions adequately addressed the prior art, disclosing the original claim language, well, our position is it does not, and I'll get into that as I got through the Petitions. And that's just an issue of whether the Petition, what they wrote, adequately described how the prior art discloses the limitation.

JUDGE COCKS: When you say the original claim language, you mean the uncorrected language?

MR. DESAI: Yeah.

JUDGE COCKS: Okay.

MR. DESAI: Yeah.

JUDGE COCKS: And so maybe you can ground me just a little bit of what you said. What is your position? Should it -- are you raising an objection to this Panel treating the Certificate of Correction as valid?

MR. DESAI: In our view, the Certificate of Correction has been cancelled.

JUDGE COCKS: Okay.

MR. DESAI: And so we don't understand why the Panel would address the corrected claim. It doesn't exist anymore.

JUDGE MEYERS: Could you provide a cite to an interlocutory order being a valid final judgment.

MR. DESAI: I think we'd have to potentially look that up, and I think, in our sur-reply, we explained how collateral estoppel applies here because it's procedurally definite, that decision. That's our view.

JUDGE MEYERS: If you could maybe provide us with a case, that might be helpful.

MR. DESAI: Okay. We can do that, Your Honor.

JUDGE MEYERS: Thank you.

MR. DESAI: So -- but let me get into the merits of this case, and I just -- there's some context here for the invention of the '969 Patent that's important.

The Patent lays out in detail mechanisms for robotic stapler that articulates clamps, cuts, and staples tissue. A number of claims have been challenged, but we have focused our

briefing on Claim 24 and this presentation on Claim 24, and that's directed to the mechanisms that are shown here on Slide 2.

Specifically, we have an elongated shaft for robotic tool that comprises spine portions coupled in articulation joint. There's a tool mounting portion that mounts to the robotic system, and the spine portions at the articulation joint are operably coupled to the tool mounting portion, and as shown in this embodiment, that's via those articulation cables that allow control of the joint from the tool mounting portion.

And then there's also the movable components in the end effector, such as a knife or a jaw, that are gear driven by a transmission assembly. And you see those highlighted, for example, as closure gear assembly and knife gear assembly. Okay? This combination of features provides for both maneuverability and high force actuation of a movable end effector component in a robotic tool.

Now, in this case, we have the advantage of evidence that takes us back to 2011, so we can avoid hindsight bias, and we can see what both parties were saying about the need for and difficulty in making such a robotic tool.

So I'm on Slide 3. And on the left, we have the '969 Patent, and there's an excerpt in Column 23, and this refers to some Intuitive patents. Specifically, there's --

the Anderson Patent is referenced there, the robotic tool with ultrasound cauterizing, and then there's also the Wallace Patent platform link wrist mechanism. It's actually a different patent number, but it's the same exact disclosure as well. It's just a continuation. So it's the exact same disclosure as well that's in this case.

And it explains here that this -- these ultrasonic robotic tools and this platform link wrist mechanism in Wallace are unable to generate the forces required to cut and fasten tissue. Okay?

And then on the right, we have an Intuitive publication also from 2011 explaining that devices that are maneuverable, like the one in Wallace, don't generate sufficient clamping force that you need for a linear cutter. And they say there's a need for improvement in the maneuverability of surgical end effectors and a need for end effectors with high actuation force, for example, high clamping force.

So we have Intuitive acknowledging in 2011, there's a need for maneuverable end effectors that also have high clamping force. Well, this definitely, I believe, contradicts Mr. Katz's statement that it's no problem to generate a tool with high clamping force. You can see Intuitive saying the opposite in 2011.

And then on Slide 4, I still have the same quote up

from the '969 Patent, but, now, I have another Intuitive publication from 2012, and this confirms, again, the difficulty of providing both maneuverability and high force actuation. It's a generating desired clamping force, while also providing the desired maneuverability for use within size-restricted minimally evasive surgical tools, has proven to be quite difficult. Transferring the advantages available from surgical staplers, linear cutters, and clamping tools to robotic surgical settings may involve even more challenges. Okay?

So as you can see here, and we'll get into the grounds, that providing a tool with both maneuverability, articulation, and clamping is not as simple as Patent Owner -- Petitioner has made it seem.

And then on Slide 5, just a little more evidence here of the state of the art, with respect to robotic tools, and this is Exhibit 2009. It's a 2011 paper from the Journal of Endourology comparing grip forces for then existing robotic tools. And these are all low force instruments in comparison to a linear cutter.

The forces here on the left, they're in neutrons, but they're all less than 10 pounds. Right? In comparison for clamping and firing, we're talking about 70 to 120 pounds force clamping and 40 to 100 pounds for cutting. So this is, sort of, the state of the art.

And then at the core of Petitioner's case are a handful of patents that disclose prior art robotic tools. And there is a common theme for these tools. They lack the combination of maneuverability and gear driven actuation of an end effector component provided by the '969 Patent. Okay? So I'm on Slide 6 now, and I'll quickly run through these four references on Slide 6 and 7.

Anderson, this is a harmonic tool. Okay? It's an ultrasound tool, and it is -- it has a low grip force, as you can see by that, sort of, little gripper, and it has no articulation. And Dr. Awtar explained that the principle operation of an ultrasound tool actually prohibits articulation because you're propagating sound waves down a shaft, and you can't have a band. That's at Paragraph 79 and 80 of Exhibit 2006 in the -01247 IPR.

So, next, we have Prisco, and this is a curved cannula tool. Okay? So you have a long cannula, and it has a slight curvature to it. And even though Prisco does -- we acknowledge, it mentions the word, wrist. It says wrist, but it does not disclose a wrist mechanism. Okay? It mentions the possibility of a wrist, but omits any wrist mechanism from its instrument. Okay? And that's why we have to go to Cooper, right? And so this is the other two references.

JUDGE COCKS: But, Counsel, I have a question. I think your opposing counsel has suggested that Prisco

discussed a wrist through, I guess, incorporation by reference, and that it was optional.

MR. DESAI: That's absolutely correct.

JUDGE COCKS: Okay. So what would you have me take from that disclosure that's opposite from what they're asking me to take from that disclosure?

MR. DESAI: Right. And I will get to that.

JUDGE COCKS: Okay.

MR. DESAI: But to answer your question right now just quickly is that if POSITA were to go to that incorporation by reference, they will go to Cooper, and they will see that Cooper discloses a multi-disc wrist, but they will also see that Cooper discloses that multi-disc wrist in conjunction with cables for pulling grip. Okay?

So if you're POSITA and you go to Cooper, you're going to see a wrist and it's being combined with pull cables. That does not fall within the scope of our Patent. Okay? And what they want to do is they want to ignore Cooper. They want to take the wrist, ignore the fact that it's made to work with cables and use it with a drive rod. And that, we would submit, is not disclosed in Prisco, and it's not disclosed in Cooper.

So, again, going to Cooper -- again, and Cooper and Wallace are sort of the two articulating tools that they rely on -- Petitioner relies on, and Cooper is a multi-disc wrist,

and it has cable actuated grip. That is clearly unquestionably the combination that's disclosed in Cooper. Okay?

And then Wallace, also an articulating tool, but he uses a different kind of articulating mechanism. Instead of the multi-disc wrist, it has this platform that you can maneuver. But as their expert admitted, there is absolutely no grip mechanism disclosed in Wallace that can be used with that platform link wrist. It's just a black box. It doesn't tell you how to do it. Okay?

So you can see from these four references the challenges associated with providing both articulation and high force grip. Okay?

JUDGE COCKS: Where did their expert admit that?

MR. DESAI: It's on one of our slides, and I'll get into that when I start talking about Wallace.

So I'm going to start with the -01248 IPR. I'm going to skip a little bit ahead. Just go in a different order, since that's the order that Petitioner went in.

So, here, again, this is a Petition that deals with Prisco and Cooper. As I mentioned --

JUDGE MEYERS: Excuse me, Counsellor, what page are you on?

MR. DESAI: I'm sorry. I'm on Slide 35 now.

JUDGE MEYERS: Thank you.

MR. DESAI: This is the Prisco, the curved cannula tool that employs either pull-pull cables for grip or a push-pull solid drive rod for grip. Two options.

There is no wrist mechanism disclosed in Cooper. So to say that Prisco discloses a wrist is misleading in a way because to meet the spine and articulation limitations of the claim, Petitioner relies entirely on the multi-disc wrist in Cooper. Okay? Cooper does disclose a multi-disc wrist, but it specifically and only describes it in conjunction with pull-pull cables for grip. Okay?

So I will summarize our view as to this combination. And the first -- again, the combination of a wrist and the pull-pull cables is disclosed in Cooper, but this combination does not satisfy the claim limitations that require a gear driven portion that applies a control motion to an end effector component.

Second, Prisco's disclosure of a gear driven push-pull rod, drive rod, the solid rod, does not anticipate because Prisco never disclosed it in combination with the multi-disc wrist of Cooper. That's a combination that Petitioner is making in this IPR. It's not something that a POSITA would take reading Prisco. Right? It's not an anticipation. When you have to combine distinct embodiments, we are no longer in the world of anticipation. We are in the world of obviousness.

And a POSITA would not immediately envision this arrangement of a solid drive rod with the multi-disc wrist of Cooper because if the POSITA goes to Cooper, they see and they learn that the multi-disc wrist is made to work with pull-pull cables for grip. That's the teaching they get from Cooper. It's only by ignoring what's in Cooper do you arrive at this combination of a solid drive rod with a bending wrist.

And then I think the third point is that the solid push-pull drive rod, a solid steel rod, is not compatible with a bending wrist of Cooper. Okay?

So let's move on to Slide 36, and these are just the two illustrations of the different embodiments for grip.

In Prisco, you have the pull-pull cables on the left that's mated with that tool assembly on the left, and then the push-pull drive rod is -- it belongs with that -- a different tool base on the right. So they have different tool bases, right? And the key being that the grip for the pull-pull cables involves tension elements that are spooled on a spool and twisted back and forth, and there is no gear involved in driving the pull-pull cables.

JUDGE COCKS: Counsel, as you discuss this, just, could you maybe summarize why a pull-pull cable arrangement does not provide the control motion required by Claim 24?

MR. DESAI: So that's the next slide, 37, right here.

So -- and it's a little small up there, but what you'll see is the pull -- and so I have the pull-pull embodiment shown on the Slide 37, and you'll see there that the claim requires a -- that the top portion of the claim in red, very top portion, requires a movable component of the end effector that moves -- and this is key -- relative to another end effector component. Okay? So that would be, like, a jaw if it was relative, okay, or a knife sliding through the end effector, moves relative to another end effector component. But rolling the shaft does not involve moving any end effector component relative to another end effector component. Okay?

So that's why the shaft roll, shown in green, does not meet the limitation of the claim because when we're talking about a gear driven portion that applies a motion to the selectively movable component, we're talking about a motion where that movable component is moving relative to another component. And you can see that if you sort of go through these three red aspects of the claim. Okay? We're talking about relative motion of an end effector component driven by a gear.

JUDGE MEYERS: So then a control motion cannot be rotation of the end effector?

MR. DESAI: I would say in this case, it is not because the claim specifically says that control motions are ones where the selectively movable component is moving

relative to another end effector component. Okay?

And then, obviously, because there is an end effector component in this embodiment that does move, there is a jaw that moves, but in the cable grip embodiment, it is not driven by a gear; it is cables that are spooled and wrapped around a spool. So that that wouldn't satisfy the limitation. Okay?

So that sort of establishes -- and then we have Dr. Knodel's cross-examination testimony at the bottom here, where he -- you know, we had asked, Does -- the gear mesh for the shaft roll does not control a motion of a movable component of the end effector, right? He says, I don't see how that would happen. Right?

So he agrees. Right? That's not moving an end effector component, the shaft roll.

So I think it's clear that the pull-pull cable embodiment does not fall within the scope of the claim. So then that brings us to the push-pull drive rod embodiment. Okay?

And so the question is, is this something that's being combined with a multi-disc wrist in Cooper? And while we start with Prisco on Slide 38, and it tells us that, Well, you can't have a wrist, but omitting the wrist simplifies everything. And it says, specifically, for this embodiment, that you have mechanisms used to control a wrist have been

eliminated. Okay? So they couldn't put together the mechanisms in this Patent to make the drive rod work with a wrist, so they just left it out. Okay?

So then let's go -- we have to go to Cooper because that's where Petitioner is getting the limitations for the spine portions of the claim. And, again, on Slide 39, we see clearly that Cooper's wrist is made to work with grip cables. Okay? That is how it's made to work.

You can see in the top picture on Slide 39, you see those two red grip cables going through the joint, and then you're going to use -- you're going to pull one to open, pull the other to close. And it even discloses a back end, so the bottom picture on the left. That's the tool mount in Cooper for controlling that cable pull-pull. And, again, it's the same thing. You have a spool with the cables tension around it, and you can twist it back and forth to pull the cable, so it will manipulate the jaw.

And there's a reason why Cooper doesn't disclose the multi-disc wrist in combination with a solid drive rod, because it wouldn't work. It's not meant to work that way. A solid drive rod is not meant to bend sharply with a wrist. Okay? You wouldn't use that. And we have our expert's testimony explaining why a POSITA would understand that a solid steel rod does not have the properties to allow it to flex around a sharp bend while also being rigid enough

longitudinally to transmit force when being both pushed and pulled.

Remember, pulled cables are tension, and they only need to transmit force when they're pulled because you have two cables. Right? But a rod that's pushing and pulling has to be stiff enough so that when you push it, it doesn't flex. Right? And -- but if you want it to bend around a corner, it's going to have to flex. Well, that's going to present a problem when you're trying to push on it to make it transmit force. Okay?

So how did Petitioner respond? The first thing they say is, Well, Cooper doesn't require a wrist that bend sharply. Well, on Slide 42, those are the images of Cooper that were included in the Petition, on Slide 42. And it clearly looks like a wrist that bends sharply.

And then I think there was the suggestion during the argument here that Cooper discloses a risk that only involves a 45 degree angle, and that 45 degrees is not a sharp bend. Well, that's just not true. And it is, I think, very telling that you can scour their expert's declaration. And he did not submit expert declaration on this point. There's nowhere that any one expert has said, Well, 45 degrees is not a sharp bend or that Cooper's wrist only bends 45 degrees.

The idea that you would only use three discs?

Yes, that's fine, but that means two 45-degree bends. Okay? So you would not use three discs to just bend 45 degrees.

And then the idea that 45-degree bend is not a sharp one is simply -- it's not believable because if you compare it to the curved cannula -- so, remember, Prisco's drive rod is made for that curved cannula tool, and that has a slight curvature over a long length. Right? That's not a sharp bend.

But, here, in Prisco -- I mean, sorry -- in Cooper, the wrist has 45 degree angles at a point. Right? Not over a long distance. Right? Now, you're talking about with two discs, you're talking about two consecutive 45-degree bends spaced just slightly apart. A solid steel drive rod is not made for that.

JUDGE COCKS: Counsel, does Dr. Awtar testify that a 45-degree bend would be regarded in the art as a sharp bend or something to that effect?

MR. DESAI: I think he -- what he testifies to is that Cooper is disclosing a wrist that bends sharply.

You know, I think there was this -- there's a sentence in Cooper that we relied on, which is at Column 13, Lines 55, and it specifically says that the wrist -- the grip mechanism needs to bend sharply.

Now, I think Petitioner is trying to argue, Well,

that doesn't apply because what it says at Cooper -- at that specific sentence, it says, Because there are only five discs, the grip mechanism needs to bend sharply. That's how it says it. But that doesn't mean that fewer discs would mean no sharp bends. What it's really saying is that if you want to eliminate sharp bends, you would need more discs because then you want to distribute the bending over a longer length. But if you reduce the number of discs, you're not eliminating sharp bends.

So the notion that Cooper, when it says, Because there are only five discs, the grip mechanism needs to bend sharply, that doesn't mean that if you have fewer discs, there's no bending sharply. It just means that if you want to eliminate the sharp bends, you need to put more discs in.

Okay. Some other arguments in their reply on this issue, they say that, Well, the push-pull drive rod is nearly identical in structure to the pull-pull tension elements. Well, that's not correct. They're clearly described differently. One is called a hypotube, not a solid drive rod. And I think this is entirely -- this is Slide 43. This is entirely attorney argument.

Petitioner's expert did not submit a declaration supporting this statement in the reply. Okay? You can see here, they are described differently. A hypotube and a

solid steel drive rod are not the same.

The next argument is Slide 44. And we see Petitioner reply saying, Well, if the drive rod isn't so great, well, a POSITA could choose the appropriate thickness material; they can make it work. They could change everything and make it work.

And the key here is what they've cited. They've cited Knodel Declaration, Paragraph 112. And I've pasted Knodel, Paragraph 112, up on the screen. And I can tell you, from reading that, it provides absolutely no support for what's been stated in the reply. It's not as generic and conclusory of a paragraph, you'll find, in an expert declaration.

And then the last point they made in their reply was Patent Owner's incompatibility arguments are premised on the physical combination of specific embodiments of Prisco and Cooper. That's correct because that is the specific combination of embodiments that Petitioner proposed in the Petition to arrive at the specific limitations of the '969 claim.

I'm on Slide 45. And you'll see here that, at the Petition on Pages 54, and 59, and 60, when trying to show how the prior art meets the limitations of the claim, they relied explicitly on the multi-disc wrist. They annotated it, shown on the right there, and they relied

explicitly on the push-pull drive rod, and that's also annotated as it was in the Petition. So the physical combination here is one that Petitioner chose, not Patent Owner.

So unless there're any other questions, I will move on to the -01247 IPR.

Okay. This is the IPR where we're combining Anderson's robotic harmonic tool, on the left on Slide 9, and Timm's handheld endocutter on the right. And there are independent reasons here to deny the challenge of Claim 24 as well.

First, as I'll get into, there's a failure in the Petition to establish that this combination meets the limitation of a tool mounting portion operably coupled to a distal end of the proximal spine portion. The evidence, second, shows that a POSITA would not have been motivated to combine Timm's passive articulation joint with a robotic tool, as Petitioner has proposed. And, third, there would not have been a reasonable expectation of success in making this combination, given the fundamental differences between those two pieces of prior art that you see up there.

Because time is somewhat limited, I'm going to cover the first two points and rest on the briefs for that third point.

I'm on Slide 10. And this is the Timm passive

articulation joint that is relied on in the Petition. It's clear that this is what they were relying on for their combination.

To understand a passive articulation joint, Your Honors, it would involve a tool you're holding in your hand, at least in Timm, and you have to push it up against something in order to make it articulate. Okay?

So it's really not -- it's not intuitive control. It's pushing it up against something in order to make it articulate. And you -- basically, it says you can bring it into contact with another tool or you can bring it into contact with a part of the -- you know, of the patient in the body.

Now, going to Slide 11. This is the claim limitation, you know, the language that's at issue with the correction in the original claim language.

In red is the original claim language on the screen, a tool mounting portion operably coupled to a distal end of the proximal spine portion. And what I've shown on Slide 11 is the totality of the argument that was made in the Petition with respect to this limitation.

And on the right, at the top, is the Petition, and on the bottom is the associated expert declaration. And, actually, we've given them the benefit of the doubt because they cited the wrong paragraph of the expert

declaration. They cited 105. I think they clearly were trying to cite to 104.

And what you'll see here is the argument in the Petition that's, Well, it's satisfied because the proximal it's -- the operable coupling is via the structure of the distal spine portion itself. That's what it says in the petition.

But then look at the expert declaration. It says something different. It says, The operable coupling is via the proximal spine portion itself.

So the expert declaration and the Petition don't even match up. There's never been a correction made here by anyone to provide what is the right argument they were relying on. And I can say with certainty, there is nothing in here that argues about a locking cable being the operable coupling.

You could search the Petition, and you will not find an argument that a locking cable is what satisfies this claim limitation. And that's why any argument in the reply that makes that argument is improper because if they had made that argument in a petition, we would've responded to that argument.

But we cannot respond to arguments that are not in the petition, and that's why it will be improper to allow it to be made in a reply. But what you see here on

the Petition, on Slide 11, clearly fails to establish the required operable coupling.

And I think that's why Petitioner, to be honest, is focused you -- was trying to focus, Your Honors, on the corrected claim language because they recognize that they didn't provide the proof in their Petition on the uncorrected language.

So let me go to slide --

JUDGE MEYERS: Counselor, excuse me for a moment.

MR. DESAI: Yes.

JUDGE MEYERS: So in the uncorrected language, where does the tool mounting portion connect to the articulation joint?

MR. DESAI: So it's at the -- there's probably a good slide here. I'll show you. It's -- go back.

Slide 2. And you see there, the proximal spine portion has a distal end that is coupled to that articulation joint, and then you have the cables that are coupling to the joint right there at the (indiscernible). And so that's where you have the distal end of the proximal spine portion; it's where you're coupled at the joint, and that is controlled by the cables.

JUDGE MEYERS: Okay. Thank you.

MR. DESAI: So let me go to the second reason why this Petition should be denied, and it's that a POSITA

would not have been motivated in combining the passive articulation joint with a robotic tool.

The -- we have the unrebutted testimony of Dr. Fegelman, a surgeon with experience using both robotic tools, and passively articulating handheld tools. And his testimony is definitive on this issue. Intuitive did not cross-examine Dr. Fegelman or present any competing testimony from a similarly experienced surgeon.

I think, first, Dr. Fegelman explained that he was not aware of any passively articulated robotic tools at the time of his retirement, and he's not aware of any that exists today. I assure you, if Intuitive knew of a passively articulated robotic tool, they would've brought it up in their reply brief. But they don't exist because no one would do it. And the reason you wouldn't do it is because you need real-time tactile feedback to perform passive articulation safely.

You're talking about a tool, in the body of a patient, and you're pressing it up against something, and if you don't know how hard you're pressing, you can damage the tool itself. You could damage a part of the body. It's simply not something a person would want to do without the appropriate tactile feedback. Okay?

And as confirmed by Dr. Awtar, I'm on Slide 14, it was well-known that robotic systems at the time were not

capable in providing haptic feedback concerning the forces applied to the exterior of an end effector. That technology did not exist. Okay? So that's a reason why you would not fundamentally change the operation of a passive articulation joint and put it in a robotic tool because it requires something that doesn't exist, and it wouldn't -- wouldn't be in the possession of a POSITA.

There's a second reason why you wouldn't use passive articulation in a robotic tool aside from the safety issue, which I think is a compelling reason not to. In Slide 13 is that Dr. Fegelman explained that passive articulation sort of negates the very perceived benefit of robotic surgery, which is this intuitive control over the device. Okay.

If you're -- in a robotic surgery -- and you'll read in all of the robotic patents, Wallace, Cooper -- the point being that the surgeon has the complete control over the tool at the console. Okay? But if you now require an exterior force to be applied, it's no longer an intuitive control. So that's kind of antithetical to the very purpose of robotic surgery.

But, nonetheless, here's the reply on this passive articulation point. And I'm on Slide 15. And the first response from Petitioner was, Well, Anderson discloses tactile feedback, so it's no big deal. Okay?

Well, we asked Dr. Knodel -- I'm on Slide 15. Are you aware of any prior art that describes a system for feedback associated with a passive articulation tool? I'm not aware of that, no. And then do you agree that Anderson does not disclose tactile feedback for passive articulation? Not that I recall. Right? Okay. So Anderson doesn't disclose that.

So let's move to Slide 16. The next thing Petitioner says is, Well, Dr. Knodel says a skilled surgeon can just choose a resilient part of the body to press up against or -- and they also know -- they're good enough to do it without the tactile feedback. It's not a big deal.

Well, this is Slide 16, and here is what we asked him at his deposition. Have you ever been involved in the design of a passively articulating tool? No, I have not. Okay. Have you ever used a passive articulating tool in a surgery? You're not that kind of doctor. He's like, Yeah, not that -- I haven't done that. Then, of course, the key here. Have you ever had any discussions with any surgeons about passively articulating tools? The answer, No.

Dr. Knodel simply is incapable of opining on this issue, and he was willing to say whatever he needed to. But it's not believable and it should be disregarded.

So let me go to Slide 17. And then the last point, I think, Petitioner made was that if tactile

feedback was a requirement, well, a POSITA would just add it to a robot. But on Slide 17, we have some articles from the 2011 timeframe. Okay? And they say, Exhibit 2017 and Exhibit 2018, Lack of haptic feedback is the most important drawback of currently available in robotic systems. And the second one says, The lack of effective haptic feedback is often reported by surgeons and robotic researchers alike to be a major limitation of robotic systems. Okay?

This is all in the 2011 timeframe. It's simply not believable that if a POSITA would simply add a tactile feedback to a robot -- because, clearly, that was a problem with robots and people didn't have an answer.

So that covers the -01247 IPR.

I'll move onto the -01254 IPR. And this is the combination, again, of a handheld stapler. Giordano, Shelton, that's shown on the left side on Slide 20, and then Wallace, which is the platform wrist robotic tool on the right.

To quickly summarize the points I'm going to cover here, just like in the -01247 IPR, the Petition failed to establish the limitation of a tool mounting portion operably coupled to a distal end of a proximal spine portion.

Second, Petitioner has proposed this alternative combination where you would have Wallace as articulation

joint used with Shelton's stapler, that stapling mechanism, but that would be inoperable, as I'll explain.

And then the third issue is that the motivations to combine Giordano, Shelton, and Wallace are flawed. And, again, loss of tactile feedback is a clear reason why a POSITA would not have been motivated at this timeframe to convert Giordano-Shelton handheld stapler to a robotic stapler. There's also the reasonable expectation of success issue, but, again, I'll rest on the briefs on that issue.

So starting with the failure of proof on the limitation about the operable coupling. I'm on Slide 21. And, again, the Petitioner has asked, I think, that the Board should focus on the corrected language. Again, I think it's because they recognize the problem in the Petition. And, here, it couldn't be more clear from the Petition that they were relying on Giordano's articulation mechanism; they put it in quotes there. And they say that includes articulation control 16 and articulation pivot 14. And you can see this on Pages 81 and 82 in the Petition.

And this is the analysis of Claim 11, which is the dependent claim. But as you'll see, and I'll go to the next slide, Slide 22. Again, they kind of double down Petition at 83. They say, Motivated to add Giordano's articulation mechanism to the Shelton stapler.

So -- and you understand, there's a two-step analysis here from Petitioner. They're saying you add Giordano's articulation to Shelton's stapler, and then you convert Shelton's stapler to a robotic. Okay?

That's the analysis here. But the beginning was using Giordano's articulation, and they say right there, you would add Giordano's articulation mechanism including an articulation control 16, okay, pointed out by number.

And then when we get to the analysis of Claim 24, they say, again, you're using the Shelton's stapler adapted for use with Giordano's articulation mechanism. And they say see Ground 1, Claim 11. So they refer to everything I just talked about, where it was clear that they're relying on the articulation control 16. Okay.

Now, when it comes to analyzing the limitation that's specifically at issue, I'm on Slide 23, again, we have the Petition at Page 90 and Dr. Knodel's declaration. And, again, it's this conclusory statement that doesn't establish how the articulation control 16, which is on the shaft itself, would involve an operable coupling to the tool mounting portion. It just says, Via elongated shaft assembly -- it would be operably coupled via the elongated shaft assembly to the distal end of the proximate spine tube.

There's no explanation. There's no basis for

saying that with the articulation control 16, you would have an operable coupling further proximally to a tool mounting portion. Okay?

But, now, during Petitioner's presentation, you heard an argument about how the articulation control 16 of Giordano would be moved into the tool mounting portion. Okay? That argument does not exist in the Petition. Okay. It is an improper reply argument and subject to a motion to strike.

And I think, again, you can look here on Slide 23 and see the arguments that they made. And it doesn't involve any discussion of moving the articulation control into the tool mounting portion.

Now, if that's what they want to argue they should've put it in the Petition because then, we could've responded to them.

The idea here now that they can cobble together different parts of the petition and say, Oh, look I can cite to this; I can cite to that. But that's not making the argument. I mean, in order for a Patent Owner to be able to appropriately respond, the argument needs to be made clearly, and it was not. So it shouldn't be in this case.

So Slide 24. This is Petitioner's first alternative combination. Okay? So we're talking about

combining Shelton with Wallace's platform wrist. And you see the Wallace platform wrist in the bottom; Shelton's stapler on the top.

And, now, the key here is what they said in the Petition. They said the motivation to do this, you would modify Shelton's stapler to add Wallace's articulation wrist, and the reason why you would do it is because Wallace teaches, it's desirable to provide surgical tools that have three degrees of rotational movement, okay, to mimic a wrist. And then they keep going, and it says, Wallace further teaches that it gives you a 360-degree movement, which improves upon Giordano. Okay?

So that was the only bases they had in the Petition for why you would take Wallace's wrist and pop it into the Shelton's stapling mechanism. Okay?

But, of course, the problem is Shelton's stapler, you could see it has this firing bar, long thin firing bar. Okay? That cannot bend in two directions. Okay? There is no way that firing bar can be twisted 360 degrees. Right?

And Dr. Awtar explained that. It's just not -- I mean, it's visually apparent. You don't even need an expert to say this to you. It's visually apparent that that long thin firing bar -- it can bend this way, like this, but there's no way it's going to be able to do this and still function as a firing bar. Okay? And that was on

Slide 25; that's Dr. Awtar's testimony.

So in the reply brief, they come back, and they recognize now that the firing bar is inoperable with the Wallace wrist. And so what do they say? Well, okay, a POSITA would just use one axis of articulation with Wallace's wrist. And this is Slide 26.

But the problem there is that that's exactly the opposite of the reasons why they said you would do it in the first place, at the Petition at 85. I mean, I've highlighted here in yellow the reasons they gave in the petition for using the Wallace wrist in the first place, was that it gives you 360 degrees rotation. It gives you three degrees of movement.

And then when they find out that that's inoperable they say, Okay, let's just -- we'll just change our argument.

Again, that's not how a POSITA would behave. A POSITA would see the Wallace wrist, and they would see that it's not meant to work with the Shelton firing bar. Okay?

So I'm quickly getting through some of the motivations to combine. Slide 27. This is -- now, we're talking about the motivation here to combine Giordano with Wallace. We're not talking about the alternative combination of Wallace's wrist anymore.

And they said, Well, you would do it because

combining Shelton's stapler and Wallace system, that increases dexterity and intuitive controls. Of course, it doesn't in this situation because Wallace is a patent that's dedicated to this platform wrist. The whole benefit of it is to provide more degrees of movement, and what they're doing is they're taking a tool that has fewer degrees of movement and putting it on that robot.

And then they say in Slide 28, in the Petition, Wallace contemplates a use of its robotic surgical system with surgical staplers. I can assure you, you can read Wallace, and you will not arrive at that conclusion because, first of all, we asked our expert, Does it even include a mechanism -- is it designed to drive an endocutter that clamps and fires? He says, No, it's not. That's correct. It's not.

All right. The figures that show the tool base don't disclose something that can drive an endocutter. It can't clamp and fire.

And it gets even worse because we asked him, does it even disclose a mechanism for actuating the jaws through the platform wrist? He goes, The figure is not clear as to show the internals of that mechanism. I said, Okay, well does the text provide any information about the internals of a mechanism to clamp jaws or grip jaws through the wrist? No, not that I recall.

Okay. So, clearly, Wallace is not a patent about stapling because it doesn't even tell you how you would clamp jaws through a wrist. All right?

So, now, the last point I'll make about this Giordano combination is there is a clear reason, if you can go back to 2011, the timeframe at issue, why a POSITA would not have combined a handheld endocutter with a robotic tool.

And on Slide 29, we've -- what we've put up here is some evidence about how tactile feedback is something that's particularly important for an endocutter, okay, as opposed to maybe some other types of robotic tools, like a clip applier or some of those smaller tools, like a harmonic tool.

Because with an endocutter you have to clamp on the tissue, and you want to make sure that you haven't clamped too much tissue because a severe problem with clamping too much tissue is if you have too much tissue in there when you fire, the staples will not form. Okay?

It's essential when you're cutting through tissue with an endocutter that the staples form properly because if you don't do that, you're cutting tissue without sealing it, and that can involve a lot of bleeding.

And so what surgeons had in their -- with handheld endocutter's is they can feel. They can feel the

tissue. Okay? And that was essential to their operation. And not only was it essential to clamping, it was important to firing too. Because they need to know if there's firing they can feel some feedback in their hand, that it's not firing, and they need to stop firing. Okay?

So these are -- this is on Slide 29 and Exhibits 2015, 2016. They are referenced in our POR, and they sort of -- and then also we have some testimony from Dr. Awtar about how this is an important aspect of a handheld stapler that would deter a POSITA from fundamentally changing that operation and putting it on a robotic tool.

And the reason why is, and we've already talked about this -- this is on Slide 30, is that robotic tools did not have that kind of tactile feedback available at this time. It just wasn't available. And, frankly, it's not available today.

And on Slide 31, this is Dr. Awtar's testimony about how tactile feedback is an important aspect of operating an endocutter.

But -- so how did Petitioner reply on this tactile feedback issue?

First, I'm on Slide 32, they argued that, Well, tactile feedback can't be necessary because the Petitioner developed the stapler in 2013 that doesn't have tactile feedback. Okay? But that's not the full story.

The reality is that Petitioner's engineers understood that tactile feedback was actually very important to the operation of an endocutter. And that because it wasn't available, tactile feedback on robotic systems, they had to develop something to act as a substitute. Okay?

So this is the testimony on Slide 32. And this confirms, one, that tactile feedback is significant to the operation of an endocutter. And second, it confirms that converting a handheld endocutter to a robotic tool, which is something Patent -- Petitioner didn't even do until 2013, involves a fundamental change in the principal of an operation because you need to develop something new to make it something that you can use.

That is not a combination involving ordinary skill. Okay? There's cases that we've cited to talk about how, if you -- if you're changing the fundamental principal of operation, that's not really obviousness anymore.

And so this testimony here, I think, establishes that converting a handheld device to a robotic device, specifically with respect to an endocutter, is not something a POSITA would do.

And then in their reply brief, they -- again, on Slide 33, they said, Well, don't worry about it. Wallace and Tierney, they disclose tactile feedback. It's no

problem.

Well, we asked Dr. Knodel about this again. And so Wallace and Tierney, actually, if you look at Dr. Knodel's declaration -- so this -- the reply at 8 cites Dr. Knodel's declaration at Paragraph 16 and 17. And then Dr. Knodel, at Paragraph 16 and 17, points to the incorporation of US Patent 6,132,368 that are incorporated in Wallace and Tierney. And he said, This discloses tactile feedback.

Now US 6, that's an old patent. We're talking 25 years ago. Right? We asked him, Does it actually tell you how to accomplish tactile feedback; the guts of it, how does it work? He goes, No, it doesn't tell you how to do it. Okay?

And that's because it just -- it's a bare statement in this Patent about, oh, tactile feedback would be nice. But, again, we know from the contemporaneous documents in 2011 that it wasn't something that was available for robotic systems, even though we were specified as being a major problem, a major limitation.

And we asked Dr. Knodel, Well, you saw that Dr. Fegelman and Dr. Awtar reference these studies that talked about the need for feedback, and how it wasn't available; you know, what did you think about those? Well, I didn't read them, he said.

Unless, Your Honors, have any other questions, I

have nothing more.

JUDGE COCKS: I do have one brief question.

Not to belabor this Certificate of Correction, but there's nothing in office records that suggest that it shouldn't be credited. We have -- but for what we now have is an Interlocutory Order from the District Court for now State proceeding saying it's invalid. Are you suggesting that that somewhat binds our hands? That there's no discretion to consider that -- whether it's valid or not, for this Panel?

MR. DESAI: I believe the District Court decision invalidating a certificate that's not subject to appeal is a final decision on whether that certificate is valid. I mean, in other case, I would say -- let's pose a hypothetical here.

Suppose a District Court invalidates a certificate; it's done. It's -- does something need to be filed with the Patent Office to effectuate that invalidation of the certificate? I don't believe so.

I think once that happens, it's -- the District Court that has the authority, I think, by statute to address this certificate. And once they do, and it's not subject to appeal, that's basically the law of the -- I would say the law of the case, in a way.

JUDGE COCKS: Yes, I understand your positions.

Thank you.

MR. DESAI: Thank you.

JUDGE WOOD: Mr. Desai, you have 12 minutes for rebuttal.

MR. DESAI: Thank you.

JUDGE WOOD: You may begin when you're ready, Mr. Denning. You have 23 minutes.

MR. DENNING: Thank you, Your Honors. I will be brief.

I think it sounds like we're in agreement; that the Board should be considering both the Certificate of Correction language, as well as the uncorrected language shown, so I don't know that there's anything else for me to get to. And I know my colleagues are eager to get to the substance of the merits of the arguments.

I will say one thing. Judge Cocks, you mentioned the point, there's nothing in the final history, in the prosecution history, the file reply of this Patent that says the Certificate of Correction that's there shouldn't be there; that it's been corrected again, pulled out, invalidated, withdrawn. There's nothing there. So think it is important for the Board to exhibit the Patent as it exists in the Patent Office right now.

The order from Judge Stark in the District Court certainly is an Interlocutory Order. It's a -- it's not

even a Markman Order.

He entered a Markman Order, and then later, he entered this Certificate of Correction. But the Markman Order didn't even rely on the Certificate of Correction. So not only is it not a final judgement; it's not a judgement at all. It's an Interlocutory Order. And the decision on the Certificate of Correction was not essential to that Interlocutory Order.

So I don't think that collateral estoppel applies, prevents us from making the argument. I don't think that we can ignore the corrected claim language.

Counsel mentioned briefly judicial estoppel also as an argument. And, you know, it's the same rationale applies. Our positions aren't inconsistent. We've always said we don't think the Certificate of Correction should have issue, but it's there, so we have to deal with it, and that's what we've done in the Petition.

And, you know, if it has displayed to Intuitive's advantage. I think to the opposite, Ethicon is trying to play these two, the Certificate of Correction and the order invalidating the certificate of correction off each other to keep the Board from considering the corrected language or from arguing that we weren't as fulsome as we should have been in the Petition, the original Petition, about the original language, even though that wasn't in effect at the

time.

And I'll make one point, and then I'll turn it over to Mr. Katz, which is, it is important to know that Patent Owner had a sur-reply after our reply, in which they could've responded to any of the arguments that they mentioned weren't adequately made in the original petition.

You know, things did change over time. There was the order. Their reply relied almost entirely on the original language, so that's what our reply addressed. They had a sur-reply to address any of those arguments that they want.

Without any additional questions, I'll turn it over to Mr. Katz to -- next. Thank you.

JUDGE WOOD: Thank you.

MR. KATZ: Thank you, Your Honors.

I guess threshold issues, I think we heard a lot of attorney argument, a lot of statements that are not in the record; can't address them all.

Also another threshold issue, if you look at every time they said Dr. Knodel admitted something, go and read the context a little more around where Dr. Knodel made the statement on their slide, and he didn't actually say what they claimed he said. And they used that repeatedly. And you'll see that for yourself. If we have time, we'll address them, but I'm not sure we will.

Specifically, on Prisco, you heard Counsel repeatedly again say, We're mixing different embodiments, and you can't do that in an anticipation analysis. That's not what we're doing. We already covered it in our opening statement, and I can repeat it.

Prisco absolutely says you can add a wrist to all the embodiments it has, and we've pointed out why the statements about adding a wrist are not limited to pull-pull. So by definition, Prisco says, you can add a wrist, and then you go to Cooper for the details. And so we're definitely not mixing different embodiments.

Also, interestingly I heard Counsel for Patent Owner make an interesting statement with regard to Giordano. He said, You have a firing bar, you know, that, you know, can bend, which is true. I'm glad to hear them admit it.

A firing bar is something that pushes and pulls. It is a push-pull device. So a firing bar can bend, but a push-pull rod in Prisco can't bend. It doesn't make much sense. Clearly, you can make a bending structure that can push-pull.

So you heard Counsel make statements, Oh, you just can't push-pull and bend. You can't mix those two concepts. Firing bars do it all the time. There's no reason why a push-pull rod can't.

JUDGE COCKS: Counsel, do we have in the record an illustration or disclosure of a firing bar that is bending?

MR. KATZ: They -- Prisco does not mention the words, a firing bar bends. But what Prisco does do is say, as I pointed it out, they discuss a push-pull embodiment which has a push-pull structure, and then they say you can add a wrist.

So that teaching tells you that the push-pull structure can bend. Prisco is teaching that. And that's what a POSITA would take away from Prisco; that I can add a wrist to both the push-pull and the pull-pull. There is no basis in the record --

JUDGE MEYERS: Counsel --

MR. KATZ: Oh, I'm sorry. Judge Meyers?

JUDGE MEYERS: I'm sorry. Excuse me. Yes.

Do you have a cite that you can point to for showing that a wrist can be added to either embodiment?

MR. KATZ: Yeah. So it's actually on our -- these slide we used at Column 16. If you read the entirety of Column 16, you'll see the reference to wrist, and it follows a discussion of the push-pull embodiment. So there's no basis to read Prisco as excluding push-pull from that additional risk.

You would expect them to say, Oh, by the way,

we're now going to discuss a wrist. This would only be added to the pull-pull and not the push-pull, and there's no statement like that in Prisco.

Prisco never suggests it's a limited thing. It's a generic statement that they make.

And as I pointed out, they specifically talk about the principals of stiffening, which certainly applies to push-pull, and both parties agree, to push-pull, you need to definitely have stiffening. And we pointed out in Slide 11 how the principals of stiffening can be adapted using a wrist. And we pointed that out on Slide 11 and 12.

JUDGE MEYERS: Thank you.

MR. KATZ: Regarding Cooper, the sharp comment you heard Counsel now say, Oh, all wrists are sharp. I don't want to -- I'm paraphrasing. But that was the gist of, I think, what their argument was.

There's no support for that.

Prisco mentions bend sharply in the passage cited by Dr. Awtar for a single embodiment that is five discs and bends 180 degrees. There is no requirement that the Cooper wrist always have five discs to bend 180 degrees, and there is no -- so all of Dr. Awtar's statements, which they say we didn't rebut. But our rebuttal is, his assumptions are all wrong. There is no requirement in Cooper to always have five discs that can bend 180 degrees.

In fact, I heard Counsel for Patent Owner admit that if you have more discs, that -- it makes the bend more gradual. And as we pointed out in our opening statement that's in the slides, Cooper discloses you can have more than five discs, so you can add more discs if that's what you would want to do.

In Slide 37, if we could bring up their Slide 37, or if you have it, this is Patent Owner's Slide 37. This is the alternate embodiment. So I think we've covered the push-pull embodiment ad nauseam. There's not much more to say there.

For the pull-pull embodiment, they say, We don't meet the claim language. Well, what's interesting is if you look at Slide 37, the claim says you have to have control motions that act in or that you have to -- you do have to open and close in response to control motions.

At the bottom of the claim, it says you have to have at least one control motion to the selectively moveable component. It doesn't say, Said at least one control motion. Right. This is not -- there's no anteceding bases issue. There's no reason why the last control motion has to be the same as the prior control motions. These are two different statements. There's no said referring back.

And so we submit that claim does not require that

the control motion at the bottom of the claim has to perform opening and closing, which is what Patent Owner's position is.

As for the Knodel transcript, I was going to put it up, but we don't have time. You can read it yourself. I just want to say the key language is not what they highlighted in yellow. The key language of the Knodel transcript is the first three words of the question. In other words, if you look at the prior question, the prior question was about, Does it move relative to one another? In other words, the question to Dr. Knodel was, Does this control motion cause opening and closing? And Dr. Knodel said, No, it doesn't. In fact, I believe they chopped off the answer. You'll have to go look at the transcript. I believe that's not the complete answer. Okay.

Let's -- can you bring it up? Okay. I don't want to use too much time flipping back and forth. I don't think that's what we were just looking at. You know what? We don't -- just -- yeah. Okay.

But you can read the transcript yourself. Suffice it to say, Dr. Knodel certainly did not admit that the claim is not met.

Slide 41. Okay. We already talked about that. Oh -- and oh, and then there was a discussion whether Cooper only discloses a cable embodiment, and so Cooper has

to be limited to cables. That's not correct.

Now, let's bring up the Cooper reference.

Cooper absolutely discloses a more generic structure, and what Cooper says at lines -- at Column 39, Line 32, if we can zoom in a little more on that.

Can we zoom in on that? Can you just highlight -- where is it? Okay. We'll get to the cite anyway. Here's what -- on fly is a little more difficult than to having pre-canned demonstratives.

Cooper has a statement that absolutely says you can have -- oh, there it is. Right. You have a space in the wrist.

So, remember, Cooper is about the wrist; it's not about the controls. And what they say is, Oh, in most of the exemplary embodiments, they are discussing pull-pull cables going through the wrist. But it says right here at Line 42, right, that you can have -- you have these openings through the wrist that can provide a conduit for any one of a number of alternative elements or instrumentalities associated with the operation of the end effector.

So what does that tell you in Cooper? It's not limited to the pull-pull cables. You can put anything through the wrist you want. And if you want to put a push-pull rod through, you can put a push-pull rod through.

There is no reason they'll say Cooper is somehow limited to cables.

So you have Prisco saying you can add a wrist, it's an optional. Go look at Cooper. Cooper says, Here's a wrist; oh, by the way, we have conduits that you can put anything through. Sure. In our examples, we're showing two cables. Cooper never says it only works if you just put two cables through, as opposed to a single push-pull device.

Switching now -- so that's Prisco. I'm done with my Prisco rebuttal.

Turn to Anderson very quickly. You know, they're arguing that we have new arguments in our reply. And I think, tellingly, what they said in their Anderson discussion, I think I got a direct quote here, regarding to -- and let's bring up their Anderson -- this is their Anderson by the way. The first slide on Anderson. Oh, I'm sorry. Not the first slide, there's -- Slide 10. Slide 10 of Patent Owner's demonstrative. Right. There it is.

There's the passive articulation joint, Figure 52, which is in our Petition. And I believe this is a direct quote from Mr. Desai. It is clear this is what they are relying on in their combination; this, being that figure, passive articulation.

In their reply, it says, their -- Patent Owner's

response says that they recognize that we're relying on the passive articulation joint for the combination. And so there's no question that we are relying on the passive articulation; that they go at length to say that we're not relying on the active articulation joint. Were only relying on the passive articulation joint.

And so you have the situation where the material we're relying on is admittedly very clear to them. They know what our argument is, and their expert admits that that provides a coupling. So there's no issue here.

Mr. Desai stated that had they known, they would've responded. There's nothing to respond to. Their expert admitted there is a coupling to the distal end by the control cable that makes the ball freeze and lock.

So there's no dispute that there's a coupling there, and they understood we're relying on the passive articulation joint. You know, the argument is clearly there, and we spell it out in the Petition.

They make the comment in their sur-reply, I believe, that we don't provide citations, constant citations, back to previous discussions.

The bottom line is we started the analysis with Claim 23. They disclaimed Claim 23. But their disclaimer of Claim 23 doesn't mean all of our arguments for Claim 23 go away. That was the first claim, and Claim 24 built on

the material in Claim 23.

So we already discussed this structure, and there would be no reason why we would have to repeat it because they simply, out of fear, they might disclaim a claim. That would have been made highly redundant, and there's no way you could write a petition in 14,000 words, I submit.

I'm not sure -- I feel wasting time on tactile feedback is truly a waste of time.

This PTAB Board has to rely on the patents and publications. That's the prior art at issue. They keep talking about what happened with actual systems. That's irrelevant, whether an actual system has tactile feedback or not.

So the fact that they say that Intuitive's actual systems, I believe, he said, like, to this day don't have tactile feedback, even though we have an endocutter now, you know, is irrelevant. The point is, what does the disclosure in the Patent say? And I --

JUDGE WOOD: Wouldn't that be relevant as evidence of objective indicia of non-obviousness?

MR. KATZ: It would not be because the references discussed the tactile feedback.

First of all, tactile feedback isn't a claim term. I just got to always remind the Board of that. They're just saying, Oh, well, a person of ordinary skill

in the art wouldn't want tactile feedback. It would be important to see it. And the fact is -- and our product today, they're pointing to Smart Clamp (ph), which is not tactile feedback. It's a video feedback, which is admittedly in the prior art.

So the key is our patents do disclose that you could add tactile feedback. The fact that our product did not have the type of tactile feedback being discussed in the patent is irrelevant. The disclosure of tactile feedback is there.

And, again, they say Knodel admitted that there's no disclosure of the guts of tactile feedback in one of our references. That's not true. It actually goes at length. There's a discussion again.

If you look at the transcript, they asked him, Oh, so it mentions feedback sensors; it mentions servo motors. Okay. But the implication was, but does it show you how to put it all together. It's like, well, that discussion isn't there.

But what you have in Anderson is it says you have feedback sensors. And so you have a sensor, you can get the information to the computer, and then the computer can control the handles. I'm not sure what more it would have to say. All right. That's enough to disclose tactile feedback.

And they keep saying that tactile feedback requires detailed disclosure because no one would know how to do it. Well, their patent doesn't describe how to do it. They discuss tactile feedback in a sentence. They're the patent. The '969 Patent has the one sentence.

Our patents actually say that you can use feedback sensors, for example, and you want to get the information to the computer. So we have more than they have.

So the idea that their patent needs this requirement of tactile feedback but somehow ours doesn't doesn't make any sense.

Regarding Dr. Fegelman, his testimony is not unrebutted. Look at what his testimony actually says. His testimony says it wouldn't be clinically acceptable. He never says a person of ordinary skill in the art would never make this combination because it's not clinically acceptable. That -- he never makes that leap.

His testimony is about clinical acceptability. And what he focuses on is that because in a passive articulation joint, you might have to go against tissue, you got to be real careful, and people wouldn't want to do that.

And so what does Dr. Knodel say in rebuttal? He says, Well, you wouldn't have to use tissue.

Now, they focused on that, and he said, Well, you could. But Dr. Knodel first lead -- was saying you would use one instrument with another instrument. So you have a grasper and your stapler, and you can push the stapler into position, which is --

And they say, Well, you wouldn't want to give up full control to a robot. That's another -- what Dr. Fegelman said.

And as we pointed out in our reply brief, you don't give up full control. If the surgeon operating the robot takes a grasper and moves the stapler into position, he's got full control of where that passive articulation joint is moving to. And that's what our briefing says, and that fully rebuts everything Dr. Fegelman has to say.

JUDGE COCKS: Counsel, you didn't cross-examine him though; is that correct?

MR. KATZ: We did not cross -- there was no need to. His statements really don't get the Patent Owner where they think they're getting. I mean, he -- so there's a doctor out there who says he thinks it would be clinically unacceptable.

And that comes back to our citation of the Griggs Patent, which is their own patent. Right?

Even assuming it's true that most surgeons would find something clinically unacceptable doesn't mean a

POSITA wouldn't think of creating a device and trying to sell it.

And so their Griggs Patent, their very own Ethicon Patent, suggests putting passive articulation in a robot; something they claim might be clinically unacceptable.

So, again, clinical unacceptability is not the test, but may be a factor that can be considered, but certainly isn't the test.

And what you have -- and they say, Well, Dr. Knodel has no business testifying about what someone, a user, may use. That doesn't make any sense.

You got to remember who Dr. Knodel is. He's not some just hired gun off the street. He was an Ethicon engineer, and he designed their staplers. He has intimate knowledge of stapler design. The fact that he hasn't designed one with passive articulation doesn't mean he's not qualified to testify about what staplers do and don't do and how the various ways to articulate that. So the idea that somehow we had to have a surgeon to talk about how a device would work doesn't make any sense.

Dr. Knodel, if you look at his credentials, is fully qualified, and we would submit is the, kind of, true expert of these proceedings who actually knows how these devices work and how they fit together and what's possible.

Again, you heard the discussion that, Oh, people didn't do passive articulation or didn't do tactile feedback because they didn't have the answer. That's attorney argument. There's no basis to believe it was technically impossible to have a feedback sensor, send a signal to a computer, that people didn't know how to do that. All right. That whole idea that somehow it's difficult doesn't make sense.

And the reference they cite, the one they criticize Dr. Knodel for reading -- for not reading -- excuse me -- didn't say tactile feedback is too impossible to do.

What they said is nobody has done it, so we're going to do an experiment. We're going to add tactile feedback to this robotic device, and were going to test it out ourselves. And that's what they did. And we pointed that out in our reply brief.

In the very document they're relying on, their solution to the fact they couldn't buy a commercial robot with tactile feedback is they just added it to do their test. There's no idea in that article that it's impossible to do.

And in turn I think I might turn over -- how many minutes do we have left? Do you --

JUDGE WOOD: You have a little over two minutes

left.

MR. KATZ: I'm going to turn over to Mr. O'Connor.

Can you say something in two minutes?

MR. O'CONNOR: I'm not sure.

MR. KATZ: Say something. I'll blame it on the lack of a clock.

MR. O'CONNOR: That's okay.

Just real briefly, if we have a look at Patent Owner Slide 28, and this goes to partially what Mr. Katz was referring to in terms of mischaracterizing Dr. Knodel's testimony.

There's a disconnect in this slide that was mentioned a little bit earlier. But the Petition never says that Wallace discloses an endocutter that clamps and fires. The Petition explains that Wallace incorporates, by reference, Tierney, which was Exhibit 109. The cite is six -- Column 6, Lines 20 to 28, which confirms that the end effector can be a stapler.

And then I'll also point the Board to Exhibit 1008, which is the Wallace Patent at Column 7, Lines 47 to 56, which confirms that Wallace end effector can be, quote, unquote, any suitable end effector. This is clearly broader than what Patent Owner's presenting.

And I don't think I have time for much else.

Thank you very much.

JUDGE WOOD: All right. You only have half a minute.

MR. O'CONNOR: I don't know if I'll have time to go on that one.

JUDGE COCKS: You don't have to use your full time.

MR. O'CONNOR: Yeah. It's okay.

MR. KATZ: Well, in that case, I will use 15 seconds of our remaining time just to point one other fact.

You know, they keep harping on the point that, Oh, well their patent, their wonderful patent is about mixing a wrist movement with high forces. And that -- and they point to our own patents that say that's difficult to do.

The bottom line is in the Anderson-Timm combination, the wrist in high forces is provided by Timm. Right? Timm is teaching that. And Timm isn't discussed in our documents.

So we're not saying it's the combination that creates this wonderful wrist with high forces; that Timm referenced itself, discloses wrist with high forces. We're saying you connect it to a robot.

JUDGE WOOD: All right. Thank you.

And you have 12 minutes, Mr. Desai.

MR. DESAI: Okay. Thank you.

First point, I think the idea that we're trying to use the invalidation of the Certificate of Correction to our advantage is there's just no bases for that. We went to District Court. District Court validates the certificate, and we, accordingly, put in our POR addressing the claim as we thought it stood.

We -- I think the argument that, Well, we had a sur-reply, so we could address new arguments in the reply. I just -- I don't think that's a road that we should be going down in IPR proceedings. I mean, sur-reply is not -- first of all, you're not permitted to put it into evidence without permission. You know, and the fact is --

JUDGE COCKS: Let me just say this to both parties a second.

MR. DESAI: Yeah.

JUDGE COCKS: This is an issue that comes up in many cases.

MR. DESAI: Yeah.

JUDGE COCKS: And the Panel is equipped to determine if that argument is improper, so --

MR. DESAI: All right. Thank you, Your Honor.

So let's go to -- I think the idea that Prisco says, you know, you can add a wrist to the drive rod embodiment.

You know, Column 16, it's a generic statement. If a POSITA wanted specificity about what a wrist looks like in combination with a grip mechanism, they go to Cooper. And Cooper tells you, Here's how you do it. And you do it with cables for pulling.

The disclosure at Cooper at Column 39, Line 42, that is categorically not a disclosure of a wrist in combination with a solid drive rod. And I think the idea that you could put anything you want through the wrist of Cooper is simply not true.

I don't think any expert would ever say something like that; that you could put anything you want through the wrist and make it work. You need something that would work. And that's not a solid drive rod.

And the only expert who said anything about this is Dr. Awtar. Dr. Knodel has been silent on this issue, other than generic statements about you can combine all of these things and do anything you want.

So that's -- and then let me bring up this new argument about the firing bar. Okay?

The firing bar in Shelton is not a push-pull device. Okay? It is also not a solid steel drive rod. There's no testimony supporting what Mr. Katz just said about a firing bar. But I will tell you this, a firing bar transmits force during firing to eject staples and cut

tissue, and then it is retracted, but the retraction does not involve applying force. Okay? It is retracted, unlike a push-pull steel drive rod in Prisco, where you are pushing it to open it -- either open or close, and then you're pulling it to either open or close. Okay? A firing rod is not a push-pull device.

And, again, the fact that the firing bar could be made of material that allows it to bend in a certain direction and still be able to push to apply the forces for firing is immaterial to whether a solid drive rod of Prisco can do its pushing and pulling action to open and close a jaw. They're not the same thing.

So let me go to Slide -- sorry -- 37, and address this claim language about the selectively moveable component, and whether it covers rolling the shaft.

So there's two reasons, and I think I covered them both, but I'll just quickly repeat them, which is the control motion is referred to as being one that moves the component relative to another. And it says control motions, and then it says at least one other control motion is driven by gear. Now, remember, because a control motion in this context in the patent is referring to the disclosure in the patent of the jaw or the knife. Right? So you're going to have controlled motions because you've got a jaw you're going to open and close, and a knife,

you're going to send down and retract. Okay?

And then there's a second reason too. Even if you buy into this anteceded basis argument, it says, One gear driven portion that is in operable communication with at least one selectively moveable component, where that selectively moveable component is something that moves relative to another end effector component. That's clear. That can't be debated.

But how is a gear that rolls a shaft -- it's not communicating with one of those jaws. It's communicating with the shaft to roll the shaft. There's no operable communication between a gear that's rolling a shaft, right, and a jaw. It's rolling a shaft and that's all its doing, in contrast to a gear that would be opening and closing a jaw. That would be an operable communication with the jaw. So there's two reasons here, actually.

The next, let me go to this -- the passive articulation issue. And I'll start with, right, the idea that the locking cable was disclosed in the Petition as being the basis for why this limitation is met.

It's simply not there. And the key being -- one key being is that where in the -- I would look in the Petition for the explanation for how a locking mechanism would look in a robotic tool. Okay? It's not there. Is it locked by hand, like it is in Timm? Is it locked by the

robot? It's not discussed because if it was discussed, we would have been able to respond on that point.

Now, as to the passive articulation and whether a POSITA would combine a passive articulation joint with the robotic -- sorry. I'm in the wrong place here. Oh, here. Whether a POSITA would combine -- it's not about whether the claim requires tactile feedback or not or haptic feedback.

The issue here is that the Petitioner, in order to arrive at the claims, is proposing the combination of a passive articulation joint with a robotic tool. And if that combination would require a POSITA to have tactile feedback, that becomes relevant to the issue of motivation to combine.

So it doesn't matter if our claim doesn't require tactile feedback. It's because the combination they're proposing is something a POSITA wouldn't, do and it's because of the feedback issue. That's why it's relevant.

I think I heard that -- something about Smart Clamp, which is the video technology that's being used. That's not prior art. There's no suggestion here that that's -- that's not in the prior art, so I don't even know why that's relevant.

There's also a discussion of this Griggs Patent. Okay? That was mentioned in their reply brief, and I think

a sentence without any expert discussing it. It's not prior art either. Okay? That Griggs Patent is not prior art, so it doesn't matter what it says about what a POSITA would do in 2011.

I'll also tell you it's an ultrasonic tool. It's not an endocutter. And the fact that a patent that is not prior art poses the possibility of a passive robotic tool clearly does not mean that a POSITA would be motivated to make one in 2011. It's really irrelevant to the issue.

And then let's see. There was also the point about Dr. Fegelman, Dr. Fegelman saying his testimony about why it would be unacceptable to a surgeon and the argument that that was never translated into what a POSITA would do. That's incorrect.

Dr. Awtar reviewed the testimony of Dr. Fegelman and explained in Paragraph 73 of his declaration that a POSITA would be aware of the prevailing opinions of surgeons regarding passive articulation, and because they would be aware of that, they would not have made this combination.

So the connection between Dr. Fegelman's testimony and a POSITA was clearly a made in the evidence that has been submitted.

Your Honors, unless you have any questions, I have nothing further.

JUDGE MEYERS: No further questions. Thank you.

MR. DESAI: Thank you.

JUDGE WOOD: Thank you, Mr. Desai. That concludes the oral argument for IPR2018-01247 -- excuse me -- IPR2018-01248 and IPR2018-01254.

I'll leave it to the parties to decide whether or not we need a break before proceeding into IPR2018-01703.

MR. DESAI: I think a five, ten-minute break would be fine. I think we'll have plenty of time.

MR. O'CONNOR: Can we make that five minutes?

MR. DESAI: Five. Sorry.

MR. O'CONNOR: We'll be fine. Okay.

JUDGE WOOD: All right. We're adjourned for the moment. Thank you.

(Proceedings concluded at 11:07 a.m.)

PETITIONER:

Steven Katz
John Phillips
Ryan O'Connor
Roger A. Denning
FISH & RICHARDSON P.C.
katz@fr.com
phillips@fr.com
oconnor@fr.com
denning@fr.com

PATENT OWNER:

Anish Desai
Elizabeth Weiswasser
Adrian Percer
Christopher Marando
Christopher Pepe
WEIL, GOTSHAL & MANGES LLP
anish.desai@weil.com
elizabeth.weiswasser@weil.com
adrian.percer@weil.com
christopher.marando@weil.com
christopher.pepe@weil.com