Jury Trial, Volume 5



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on his knowl edge; but in terms of -- unl ess he can lay the predicate for a photograph or there is some other predicate to get in the Chi pworks report, the expert can't somehow bootstrap in inadmissi bl e evi dence on that. That doesn't mean he can't draw it, show it, explain it, just he can't bring in the hearsay itself.

Then we have the question about the Susan Pani co depositions. I've reviewed what Anascape wants to put it in. They can go ahead and put it on in. It would probably be best if it was put in chronologically, fit in where it fit.

And then we get to this question of what the jury is supposed to consider. Now, defendants are adamant, al most desperate, that they should be allowed to focus the jury on changes between the first application and the second application as opposed to the current claims in di spute and the original application. They are desperate to get in words like "conti nuation-i n- part" versus "conti nuation"; and, for example, you've cited me to the Chi ron Corporation versus Genentech case, 363 F. 3d 1247. And there was a couple other cases you cited.

And cases talk in terms of when you file a subsequent application, you cannot change the di sclosures or the clai ms themsel ves. But the key in
all these cases is still you' ve got to compare the claim in dispute with the original application or the application for which the plaintiff is attempting to cl aimpriority. And what the courts are saying is the patentee cannot go ahead and somehow change his application, compare the claim with language of that second application, say it's disclosed, and then somehow take that on back.

But no case hol ds that si mly because there is some change in language bet ween the first application and the second application, that that in and of itself makes it wrong because, in fact, in the continuation-in-part, as courts have said, some of the clai ms may have the advant age of the earlier priority date; and some of them mave have live with the second application date. And that doesn't depend on a comparison of the changes in the application; it depends on a comparison of the claimin dispute and that original application. And that's what l'mtrying to focus the jury on.

Now, Mr. Gunther has written me a lengthy letter tal king about the fact that he's been correctly citing the I aw and feels hurt and confused and di sturbed about my indication that some of his statements are misleading to the jury. Well, Mr. Gunther, I consider
you a very educated man and a very experienced lawyer; and, so, I went back and looked at the transcript.

And, for example, in the Vol ume 1 at
page 123, you start off -- I think this is one of the ones you cited to me-- talking about: A continuation patent requires something very specific. You can't change the invention. That means what's described in 1996 has to be the same invention as what's filed in -as the claims that were filed in 2002.

You corrected yourself there. You recognize, as we all do, that a patent doesn't cover one invention. Now, it would be great, l think, from defendant's point, if you could focus all at that 1996-- plaintiff has called it a "warehouse" -- and if you could just get the jury thi nking it is one invention in that original patent application and what are all these claims doing and there must be something wrong.

And, i nadvertently or not, you've been very, very caref ul to continuously refer to the original application as "an invention," singular. For example, there at page 123, Iine 10: And, I adi es and gentlemen, what that means is those claims that he wrote in 2002 will live or die based on whether they are the same invention -- singul ar -- as what he described in 1996.

And then we get to page 307: Because if you
make changes to broaden the invention -- of course, we all know there is more than one invention; but you keep using this singul ar very carefully -- that would be a probl em

If you broaden -- and this is at page 307, starting at line 1: If you broaden the invention from 1996 to what you filed in 2000, then you woul dn't be able to get back to 1996, right?

Answer: Yes, sir.
And then later down, at page [sic] 14:
Because if you had broadened it, then you woul dn't be able to get back to 1996 because you would have changed the invention. Remember, the invention has to be the same at both points in time, right?

Yes, sir.
And then you go into changes in the two applications, tal king about taking out the single member input -- or the single input member operable in 6 degrees of freedom from one application to the next. That term l don't believe, shows up in any of the clai ms. And, so, even if this had been called a "continuation-in-part" -- and I don't think whether it's a "continuation" or "continuation-in-part" Iabel is det erminative.

But the whole point of this exercise is is
that if you're comparing the claims in issue with the original application, the fact that you could -- I mean, a lot of claims in this case have al ready been el im nated by this court. Others were not asserted by pl ai ntiffs. And then to -- so, obviously, defendants could go in, find all kind of changes that apply to those other claims, focus on those and say, "Ladies and gentlemen, they made all these changes to the application. Obvi ously something must have changed. Focus in on that, Iadies and gentlemen."

And you kind of sidle away from the focus of what they have, and that is compare the claims in that issue with that original application to see if it is covered there.

And then you go on into -- then you repeated that again on page 313: You testified you made changes from the 1996 application when you wrote the ' 700 application.

And then on page 315: And in 2000 when you filed the ' 700 application, you changed it to say that your invention -- again this singul ar -- is at least one input menber.

And the point I raised and was trying to make clear to the jury -- and in light of your letter, l'm quite sure that you understand, sir -- a patent is not
an invention; an application is not an invention. The application has to disclose all of the inventions set out in the claims, whet her it's a continuation or not a conti nuation.

And to pretend surprised or this "I'mso i nnocent" when, as educated and careful as you are -and I awyers have to live and die on words. We're trai ned to use and we're taught to use and we get used to using words very precisely. And there is a big difference, in this field, bet ween the singul ar and the pl ural.

The point l was trying to make to the jury is keep in mind each and every claimis an invention and they will have to decide whether the -- and I believe it's five inventions that we have claims for now -- are actually di sclosed in the original application. If not, they don't get the priority date of that 1996 application.

The next question, then, would be are they even disclosed in the later application. No one's really discussed that too much because l thi nk it's pretty obvious or it seems to be al most uncontested that if he doesn't get the first priority date, he loses on invalidity. I haven't heard any real contest of that one at all. I mean, if that is an issue, no one's
really addressed it yet. No one's focused at all as to whet her the written description in the second application is sufficient. Everyone's focusing on the first one.

Now, yes, there are all these theoretical possibilities that we could then go to the second one; but if no one's addressed them then l don't see any point in spending a lot of time with the jury on that. If it is an issue, bring it up.

But I want to make very clear that I do think that this constant reference to the original application as havi ng "an invention" -- and, yes, you're right, you did say it correctly one time where you tal ked about the cl ai ms and the inventions. But most of the time you refer to it as "an invention." Well, every one of those claims is an invention; and there is no law at all saying that the invention in the application is the invention in the claims. In fact, that in and of itself is self-contradictory because the clai ms are several i nventi ons.

Now, the disclosures -- they have to be fully and completely disclosed there; and I will, in fact, instruct the jury on that. But I ambecoming very concerned with this -- and you asked in your letter -you coul dn't believe why l instructed the jury that
because it seemed to be the law as you were stating it. And I've mentioned several times -- and I didn't go back and get them all. I found several of them where we had this difference bet ween singul ar and plural and this idea that there was "an invention" in the original application and that, therefore, because he changed the application and specification in the 2000 application, that, therefore, the jury should presume that there has been a change and, therefore, it wasn't disclosed in the first one.

And that's not what they look at. They look at the cl ai ms that are at issue and they have to compare those with the application in 1996 and there has to be a showing or a determination of whet her those are, in fact, disclosed.

Now, l don't know how to make it any more clear than that. And as I said before and I tried to say the last time we had this discussion, l did not thi nk at that time you were doing it deliberately because lawers typically in this field, we talk about that; but we all know what each other is saying. he all know that we're tal king about comparison to claim with what was disclosed back there, and you talk about the i nvention.

The jury doesn't. They're not in this field.

And I think it's very i mportant to them we focus on each cl ai mis an i nvention; and then each of those separately, indi vi dually have to be compared with what was shown in that ori gi nal application to see if it, with all of its limitations, is fully and fairly di sclosed to one of ordinary skill in the art, as the i nstruction will go.

And ori gi nally what $I$ was trying to point out to counsel on both sides was let's be caref ul about this because in this case, unlike many l've had, this is obviously a very important issue. And I don't think it's proper, i nadvertently or del i berately or any ot her way by our loose use of the I anguage -- which we're all subject to because we're all used to talking in these terms l'Il grant you that -- we somehow mislead the jury and then they're looking at the instructions and they're remembering what we all said.

And l'Il even, you know, say that I have probably used those terms that way over the course of $m y$ career; but in this particular case, it is very, very i mportant. And the cases you cite, I don't think, make any change in that. They don't say that -- and I have not seen one that you cited that said that a patent was i nval i d or a clai mas i nval id because there was a change bet ween one application and the next.

What they say is is that a earlier -- or a claimis not entitled to the earlier priority date because it is not disclosed in the earlier application. And they pointed out a case where you could not have a narrow early application and then a broad claimlater on, and then that is what becomes the problem In other words, the clai m gets to have more than what was shown in the earlier application.

The fact that the second application was broadened or narrowed isn't what makes it wrong. What they're just saying is is that doesn't allow-- just because the application is changed and it may support -the second application may support the second set of claims is not good enough to get the earlier priority date. The first application has to support the second set of cl ai ms.

So, l'Il state that to clarify what lam trying to get across. If someone thi nks l'm misstating the Iaw, we'll have a chance to di scuss that at the jury charge. And if you think an instruction l give to the jury is incorrect, you need to go ahead and let me know that so l can correct it in front of the jury.

But we're playing with words here, very carefully spoken words, and words that have meani ng. And in this case plural and singul ar have a lot of
meani ng; and, so, l think it's important that we be careful about it.

Mr. Gunther?
MR. GUNTHER: Your Honor, thank you for that and I appreciate that and I will tell you just a couple of things, your Honor, quickly.

Your statement just now is the first time that I have understood the point that you were trying to make. And, your Honor, that's probably me being dense. I'm not blaming the court for that.

THE COURT: Well --
MR. GUNTHER: And let me tell you what I mean. I was -- that letter was fromthe heart, your Honor. It was not a letter of fei gning surprise or anything like that. I was puzzled. And you could ask Mr. Germer. When you instructed the jury the first time, I said, "Why did he do that?" And, agai n, you know -- and then when you instructed them the second time, I said, "It seems like he's saying the same thing \| am "

So, your Honor, here's the point. Now I understand what you're saying. It's me. Okay? I'm not throwing it on the court; it's me. I'ma German; and I can be thick sometimes, your Honor. l'Il admit that. But let me say this, because it's really important.

The reason why I don't think l misstated the I aw -- and your Honor has quoted me chapter and verse of me tal king about it as "the invention" -- is that in this particul ar case, with this particular specification, the way that it was written, the way that it was written that says the object of the invention, 17 different times is, a single input member movable in 6 degrees of freedom and where it says not only that but Chang, we're not Chang.

Your Honor, my point is, at the end of the day, he said there is one invention in that specification. There may be lots of different bells and whi stles on it. There may be a single i nput nember that has a flexi ble member in sheet. There may be a single i nput member that has $t$ his or has that.

But the reason, your Honor, that l felt l have never misstated my position is because you look at the facts and circumstances of every case. Some patents have one i nvention in them some patents have many i nventions. And in some instances, your Honor, because there are many i nventions, the Patent Of fice makes patentee split them out into what are called "di visional i nventions."

In this specific case, your Honor -- and you may di sagree with me on this -- and in terms of the
legal issues, your Honor, you're going to make the decision; l'm not going to make the decision. But the reason why -- the way we have tried this case from the very begi nni ng is that there is one invention. It may be stated different ways and there may be different bells and whistles on it, but there is one thing, a single input member movable in 6 degrees of freedom And that is not -- and they made this statement with respect to the invention as a whole, not with respect to any particular embodi ments.

So, your Honor, now l get it. I'ma dope sometimes. l'Il admit it.

THE COURT: Well, I don't --
MR. GUNTHER: Now I get what your point is. Your Honor, I respectfully flatly di sagree with your point in this particular case with respect to this particular specification. I am not -- because your Honor has now told me your position, l'm not going to get up and call it one invention. I think it is, your Honor; and l think -- with all due respect, I think the court is wrong on that.

THE COURT: Well, now, wait a minute. If you want to try to show that all that is disclosed in the specification -- and you can take a look at the '525 patent. It has a number of cl ai ms , also. And an
argument can al ways be made that only, say, claim is actually disclosed; and all of these others are just additional ways of describing claim -- and there are cases that hold that -- that would be legitimate.

But what is happening here is we've got five different -- l think it's five different claims, maybe six. Each with one of those describes, or intends to describe, a different i nvention.

Now, there may be onl y tiny little differences in them and it may be true that none of them actually are described in the first application, whi ch is your position. And that's legitimate. But in the end, the jury's going to be instructed -- and, in fact, defendants usually ask for an instruction about "consi der each cl ai m separately and go through it separat el y."

Well, consistently, I want them to look at them separately and one at a time look at the -- and then you're going to want them to look at each and every single el ement of the infringement one at a time. You're going to want them to look at i nval idity to see if something is missing there one at a time. But then we don't suddenly say, "Oh, but actually you take a look at the specification that it's just an invention." Okay?

MR. GUNTHER: Your Honor, I understand your

THE COURT: All right.
MR. GUNTHER: Your Honor one l ast thing, because I know you want to bring the jury in.

THE COURT: Sure.
MR. GUNTHER: On the poi nt about the changes to the application, we have never said -- your Honor, if there were a case where 1 was not compl aining about the breadth of $t$ he $c l$ ai $m$ and $t$ he scope of $t$ he $c l a i m$ and $a l$ I had to go on it was to come in here and say, You know what? They made changes to the specification" and then I would say, "You know what, jury? Look at that, don't I ook at the claim" your Honor, in that case what you said would be a hundred percent correct.

In this case we're not saying that it's just the changes. We've never said that. There were two thi ngs going on here. They changed the specification, and they wrote clai mb that are not supported by the original specification.

It's the combi nation of both of those things. And when you look at the Chi ron case and when you look at the Reynol ds case, your Honor, they're tal king about both of those things, the claims and the specification. I am not going to stand up -- l'll tell the court this
right now -- in closing argument and suggest to the jury that "Si mply because they made changes to the specification, forget about the claims, jury, and just take a look at those differences." That's not my point. My point is when you consider both of those things together, as the Federal Circuit has done and as the Di strict Courts have done, that's perfectly appropriate.
l'।l say one more thing, your Honor; and then I'Il shut up. That with respect to the last point that I made in my letter, your Honor -- how did the issue of the changes to the specification come up? I didn't raise it in my opening. The first time that it came up, your Honor, was when Mr. Cawl ey asked Mr. Armstrong on direct exam nation about changes to the specification.

He said: Di d you make changes? Your Honor, I cited this to you. It's on the transcript starting at page 158. The key I anguage is 159 at 19: Are there any differences bet ween the ' 96 application and the 2000 appl ication?

Answer -- direct exam nation -- I haven't even brought it up yet.

Answer: Yes, they are.
Question: What are those differences?
I made some language changes just to clarify and to ki nd of get to the heart of the invention sooner.

Now, your Honor, them havi ng done that, opened the door like that, we are perfectly entitled to show that that is not the reason that those changes were made, that they were made for other reasons that have to do with the core issues in this case. And to say that we're not entitled, after l examined Mr. Armstrong for probably 40 pages of the transcript on those issues and the fact that they are not just clarifications, that, A, the jury should not be instructed to di sregard that because that is not the law --

THE COURT: I don't think I've instructed them to disregard your cross-exam nation, have I?

MR. GUNTHER: All right. No, I don't think you have, your Honor.

But, B, the jury should not be instructed to di sregard those changes in eval uating whether both the changes to the specification and the clai ms that he wrote in 2002 are supported by that 1996 application.

THE COURT: And that's allowed in because you're allowed to try to show that the inventor did not have the invention -- one way they put it is did the inventor have in his possession or did he have the invention at the time he wrote the application. But l haven't struck that.

MR. GUNTHER: All right, your Honor. Then,
with that, ${ }^{\prime}$ 'm going to sit down and shut up because I thi nk l can start acting at cross-purposes for my client.

THE COURT: Okay.
MR. GUNTHER: But I think the poi nt, your Honor is l am now -- it's me, your Honor; it's not you. I'm on the same wavel ength. I understand what's going on here, and $I$ appreciate the fact that the court came in here and hel ped me on that $t h i s$ morning.

THE COURT: Al I right. I thi nk we've got all
the issues.
Who's on the stand right now? The expert?
MR. PRESTA: Mr. Dezmel yk, the expert.
THE COURT: Okay. Anything el se that needs to be covered?

Let's bring them on in.
All right. Is there anything el se left that needs to be taken up prior to continuing on with his exam nation?

MR. PRESTA: I don't bel i eve so. There may
R. CAWLEY: No, your Honor.

THE COURT: Okay. Let's go ahead and bring
in the jury, please.
WII the document camera that we have not work with that stuff?

MR. PRESTA: Your Honor, when there's very tiny chi ps and stuff, it doesn't.

THE COURT: Okay.
MR. PRESTA: I tried it and can't see it.
THE COURT: All right.
MR. PRESTA: Onl y for really small things will l use it. I may not use it at all.

THE COURT: Al I right. I'mjust surprised.
I thought our technol ogy woul d handle it.
(The jury enters the courtroom 8:59 a.m)
THE COURT: Good morni ng, I adi es and gentlemen. I hope you all had a ni ce Mother's Day weekend. We started a little bit later because I had a motion to take up and had to deal with it in terms of what we woul d be doi ng today. We're ready to conti nue on.

Remember, sir, of course, you're still under oat h?

THE W TNESS: Yes, I do.
THE COURT: Go ahead, counsel.
MR. PRESTA: Thank you, your Honor.

## CONTI NUED DI RECT EXAM NATI ON OF ROBERT DEZMELYK

## CALLED ON BEHALF OF THE DEFENDANT

BY MR. PRESTA:
Q. Good morning, Mr. Dezmel yk.
A. Good morning.

Once agai $n$ you were here testifying as an expert $i n$
7 this case, right? We put you on the stand on Friday?
8 A. That's correct --
A. That's correct. One of the main issues in the case is whet her the inventions described in the claims that ul timately ended up in the patent are sufficiently described in the first application that Mr. Armstrong made to the Patent Of fice in 1996.
Q. Okay. Have you undertaken a - first of all, why is that i mportant? Could you tell the jury?
A. Well, that's i mportant because one of the tests is whet her the i nvent or had this i nvention described in the cl ai m in his mind that is, di d he really have this i dea
A. Of course. When part of being -- making an invention is when you did it; that is, you had an idea at a particular point in time before other people had it or before it was present in the market place.

So, the question we have to look into is when di d that person have that idea in their mind, not -maybe they had -- they didn't have a -- the question would be di d they not have that idea when they first described their ideas to the Patent Office. Because in this particular case, the claims which describe the invention were written later than the original specification or description of Mr. Armstrong's ideas. Q. And when were -- the claims that are at issue in this case that Nintendo's accused of infringing, when were those claims written?
A. Those claims -- l believe the ones we're looking at were written in 2002.
Q. And what date is Mr. Armstrong trying to establish that he, in fact, had the idea claimed in those i nvent i ons?
A. Well, he's trying to establish that -- the date he had that idea, back in 1996, when he filed his first application.
Q. Do you have an understanding as to why that's important -- why is it important that these claims in 2002 from Mr. Armstrong's perspective can get back to 1996?
A. Well, in this particular case the reason it's i mportant is between 1996 and 2002, there were a lot of changes in general in the technology. And, in fact, there are other controllers that came out in between those two dates which if -- compared to the clai med invention invalidated.

In other words, the ideas in the invention that are set forth in 2002, if that idea is only entitled to 2002 as the date when it was made as an invention, then it's after other inventions that do the exact same thing. However, the idea is if it's earlier, if he really had that idea in 1996, then he is before those other examples.
Q. And does the idea of being before or after relate to the concept of invalidity?
A. Absol utely. If you have an idea after someone el se, even if you got a patent for it, it's invalid. That patent claimis invalid. Because what you're
describing is not an invention you made but an invention someone el se made. So, if there's already a product that does something in the market place and your patent cl ai m describes it, then your claimis invalid if that ot her thing was present beforehand. That is what we call "prior art," that it was available; people in the public knew about it before the date of your invention. Q. Are you saying that you can't get a patent on something that al ready existed out in the market? Is that a simple way of --
A. That's correct. That's a simple way of saying it. There are some legal restrictions. That market has to be, for instance, in the United States.

But if something is for sale in the United States or published, described -- perhaps the invention is described in a book that's been published anywhere in the world -- or if it's for sale in the United States, if you can go down to the store and buy something which does what the invention cl ai m describes before the date for that claim what's called a "priority date," then that claimis not valid because it's not an invention then. It's just describing something that al ready exists.
Q. Now, you mentioned that a product would have to be in the market in the United States. Is that al so true,
in your understanding, for printed publications like a published article or a published patent application that might have happened in a foreign country?
A. No. Publications -- and publications means books, of course, magazine articles, things like that, technical papers, other patents or patent applications can be from anywhere in the world. So, a publication outside the United States still counts as prior art. It's just there is a particular restriction for the sale of physical goods, things like that. They have to be in the United States.
Q. Okay. So, then, did you undertake a study of whether, in fact, the clai ms that were drafted in 2002 that Ni nt endo is accused of infringing -- did you undertake a study to see whether, in fact, those claims are entitled to go back to 1996?
A. Yes, I did.
Q. And, in other words, did you determine in your st udy whet her Mr. Armstrong had described the ideas that he Iater clai med in 2002 in that 1996 application?
A. Yes, I did.
Q. And what was your conclusion rel at ed to that?
A. Well, my conclusion is he did not describe what he clai med in 2002, in 1996.
Q. And you have -- have you prepared some type of
charts that hel $p$ the jury understand this?
A. Yes, I have.

Okay. And l'd like now, if l could, to turn to some of those and have you give an overview of your opi ni ons with your charts.

Now, first of all, this slide -- l see that the first itemthere - could you just tell me what this slide is for?
A. Sure. This slide -- l wanted to give a little roadmap because l'm going to talk about a lot of stuff today. So, I wanted to kind of just lay it out there so we can see progress -- because l'm going to be here for a while -- and everybody would get a feel for what we're going to be going through.

The first thing l'm going to talk about is the i nventions described in the claim are not entitled to a date -- an i nvention date back in 1996. That's the first thing we're going to talk about.
Q. Okay. And just so we're clear, when we talk about the claims, is it your understanding that each claimin the patent that's being asserted really constitutes its own i nvention?
A. That's correct.
Q. Okay. So, you need to look at each one of the asserted claims and go back and see if it's supported
back in 1996?
A. That's correct.

Okay. Now -- so, you already told me that you undertook the -- the first item is what we're tal king about there. Can you just give the jury just an overview of the other items that you intend to di scuss with the jury?
A. Sure. The second item here (i ndi cating), is the conclusi on that comes from that. In ot her words, if the cl ai med i nventions are not entitled to the priority date of 1996, if they are actually only entitled to the year 2002 or the year 2000, when there was an i ntermedi ate application filed, then those clai ms are inval id because there is prior art. And we'll see that prior art. It's ot her controllers that were available in the market. Q. Okay. And the third item?
A. The third item down here (indicating), "I nvalid For Lack of Written Description," is another test that needs to be made to say if a clai med i nvention - a cl aimin a patent is valid. And that is, is it adequately described in the specification; that is, can we look in that specification, the description that the i nvent or made of his i nvention, and does it describe that claim is there enough description for that. Q. Okay. So, then, it seems like your testimony is
saying that you're going to do two comparisons. You're going to compare all the claims in 2002 to the 1996 application. You've said that, right?
A. That's correct.
Q. And then you've al so undertaken a study where you compare the 2002 claim to the other application that was filed in 2000. Is that what you're telling me? A. That's correct.

Okay. And why did you do that second comparison? A. Well, there's really -- these are very closely rel ated tests. The first test tells us did the inventor have in mind -- did he have this idea in his mind back in 1996. But the next question is did he have it in mind even in 2000 when he made this second, slightly different application. And that's a different test. Q. And you're going to event ually explain that to the jury?
A. That's correct.
Q. Okay. And the last one, can you just give us an understanding of what you're going to do there?
A. Sure. There l'm going to show that Anascape's cl ai ms that we tal ked about on this case are not infringed by the Nintendo devices but, in fact, the Ni ntendo controllers are quite different and there are reasons which l'Il go through of why they don't meet the

I im tations of those claims even as those claims stand today.
Q. Okay. Well, it sounds like we have a fair amount to cover; so, why don't we start with the first one, whi ch is your anal ysis of whet her the 2002 cl ai ms are described in the 1996 application. All right?
A. Great.
Q. Now, you've al ready tol d me that this is your conclusion; but could you just tell us again what it is? A. Sure. Agai n, my conclusion - or the results of my anal ysis, whi ch we'll go through the process here, al so is that those claiminventions from 2002 - claims 19, 20, I think it's 22, 23, and 16 and 14 - are not supported by the 1996 appl ication.
Q. Okay. And can you tell me what this timel ine is?
A. Sure. Well, just to help us all keep all these facts in min, $\quad$ made a little timel ine up here; and it shows when things happened.

In 1996 Mr. Armstrong filed the application, July 5th. That's noted under neath the -- the numbers under neath are the exhi bit numbers, if someone wants to find one of those.

And then agai $n$, over in 2002, he filed the cl ai ms that cover the three input devices with 6 degrees of freedom that are currently at issue in this case.
Q. Okay. And the red arrow represents?
A. The need for himto get a priority date for those cl ai ms back in 1996.
Q. Okay. And if he can't get it -- as you've i ndi cated in your opi ni on, that he can't get back to 96, right?
A. Well, I don't bel i eve he can get back to '96. He does not have support back in '96.
Q. Okay.
A. And what that means is that his priority date is is not back in '96, and there's prior art in bet ween. Q. Okay. And do you understand the i mplications of that? I think you expl ai ned it, but could you explain what the implications would be if Mr. Armstrong could not get back to 1996?
A. Well, the simple implication is we get all the prior art between 1996; and the filing of those claims can then be compared agai nst those clai ms. And, so, prior art that's before his application in 2000 and bef ore the clai ms in 2002 then is compared against those cl ai mb as prior art. And we will see that there are a number of controllers in the market then that have the cl ai med feat ures al ready bef ore his date of invention.
Q. Now, di d you hear Mr. Armstrong testify?
A. Yes, I did.
Q. Okay. And did you review this pi ece of testimony?
A. Yeah, l've seen it.
Q. And this is the testimony of Mr. Armstrong in this
trial, right?
A. That's correct.
Q. Okay.
A. And basically he says that if you can't get back to
' 96, it has a bad influence on his validity. And he
says "yes."
Q. And you agree with that, right?
A. Yes, I do.
Q. Okay. Now, I just want to make sure we're clear.
There was no application filed in 2002. I' m not sure if
I misspoke or maybe you misspoke, but I just want to
make clear that there is an application filed in 2000,
right?
A. That's correct. The application - there is an
intermedi ate application filed in 2000, but the claim--
these particular claims here were first filed in 2002.
Q. Okay. But your understanding of this testimony
from Mr. Armstrong is that if he can't get back to 1996,
he has some problems with validity?
A. Yes.
Q. Okay. Now -- and could you tell me what this chart
is showing?
A. Sure. This chart is just showing a qui ck summary of $t$ he dates of some of $t$ he prior art and, in particular, the prior art l'm going to be tal king about I ater for i nval i dity.

The first one on there is in April, 1998. A patent application was published. It's a European patent application. It was publ ished in April of 1999. "Goto" is the man's name who's listed, the i nventor. That patent is assigned to Sony Corporation. It describes a handhel d game controller.

In June of 1996 a controller known as the "Sony Dual Shock controller" was introduced into the United States. That's the PlayStation controller.

And then in October 26th of 2000, Sony brought out a newer i mproved version that was known as the "Sony Dual Shock 2." Q. Okay.
A. And those controllers are prior art.
Q. You don't have over there on this slide the application that Mr . Armstrong filed in 2000; but he did file another application in 2000, right?
A. That's correct. And that application is in November of 2000. I don't remember the exact day. Q. Okay. And that application, again, was after all three of these pieces of prior art, as you're calling
them were available publicly?
A. That's correct.
Q. Okay. Now let's go back, and l'm goi ng to ask you if you could please -- this is a very important issue -if you could hel p the jury understand what's in that 1996 application. And I know that you spent some time trying to simplify this for the jury --

MR. PRESTA: And, first of all, I want to just point out that this 1996 application, because it's such an important document, is contained in the jurors' notebooks in this case. It's also Defendant's Exhi bit 306A, whi ch has been renumbered, your Honor, and to correspond with the page numbers that are in the jury not ebook.

It's al so Defendant's Exhi bit 12, which is the ' 525 file history.

BY MR. PRESTA:
Q. You revi ewed both of those exhi bits, right?
A. Yes.
Q. Okay. Now, in fact, the application -- the front page is the application that we're showing here on the jury notebook at page 1 and page 3. You realize that, right?
A. Yes. That's where they are.
Q. Okay. Now, can you tell me what this slide
A. Well, this slide is the steps. I' m going to back up a little bit and make that a little clearer, that l'm going to be looking, as part of my analysis, to see where $i n$ that application, where $i n$ the specification -the description that the inventor makes called the "specification" of the patent -- where, if anywhere, he di scl osed the ideas that make up or that constitute the cl ai med i nvention. And there is a couple different parts of that application. It's a thick document. And, in particular, it's got drawings. It's got his written verbal text description. It's kind of complicated text; so, we may have to go through it carefully.

But the first step is to look at the drawings because it's usually a little easier to look at the drawi ngs than it is the text. And l'm going to add on that there's also - although, we don't really need to look at them much in this matter -- technically speaking, the claims that he filed at that point in time are part of the specification. But those are not the cl ai ms we're tal king about now because those clai ms were not used -- those i nventions described in those claims and those clai ms are not rel evant to the matter we're here on today.
Q. Okay. Di d you undertake a revi ew of the drawings
i $n$ the 1996 appl ication?
A. Yes, I did.
Q. And you prepared some slides to hel p the jury understand those?
A. Yes, I did. There's quite a few drawings in that application; so, l actually sorted out the ones that were important in this case. There are other ideas in there that are not related at all; so, we're not going to look at every pi cture in there because we would be here for days. But we're going to focus on the ones that are rel ated to this case and the clai ms that came out of it.
Q. Okay. Can you first tell the jury why you have that figure?
A. Sure. I think this is a good starting point for us to try to understand the i dea that's described in that specification.

And what this shows, Figure 7, is a ball, in the middle. And, again, we're going to put highlighting on things in these pi ctures. These are all bl ack-and- white drawi ngs. It's a tradition in the Patent Of fice, from the beginning of our country, to make the drawings just like a pen-and-ink drawing. Q. And let me just stop you for one second. l'Il just note that you had tried to put the jury notebook page
number on the slides, whenever possible, in the bottom right-hand corner, correct?
A. That's correct. There should be, down in the corner there, where somewhere -- a place that you can find it if you want to look right at the actual drawing or text or picture in the juror notebook or if you want to make a note or something where it is.
Q. Okay. And what is this -- just an overview of what this figure generally is?
A. Sure. This is a picture where Mr. Armstrong is describing or begi nning to describe his idea. And, in particular, he's expl ai ning that there is what he calls an "input el ement" here, 12; and it has -- it can roll around that direction. It can pitch back and forth this way (indi cating).
Q. Let me just stop you for just one second. Now, this isn't actually a controller product, is it? Just try and --
A. No.
Q. -- put this in perspective for the jury of what it is. It's not --
A. Right.
Q. Thank you.
A. Okay. Just to expl ai n this, this is a complicated idea; so, he's working in steps to expl ain it. And the
first thing he's really expl ai ning is there's going to be a i nput member -- in this case he's showing it like a ball -- and it can move every whi ch way. It can move back and forth al ong the first, second, or third axis; or it can turn on those axes. And, really, if you think about it, it's like hol ding a beach ball in your hand. You can turn it any which way; and you can al so move it up and down, si deways, and back and forth. But there is one ki nd of ball, and you can i magi ne that that ball itself is moving in those different directions. Q. Does the term " 6 degrees of freedon' rel ate to this figure at all?
A. Yes, it does. The technical termfor that is that it has 6 degrees of freedom because you can move it three ways -- side to side, forward and backward, up and down. Those are the three arrows of what we call "I i near axes," engi neers. And then you can turn it, rotate it.

And the typical words that are used for that rotation, to describe it, is what people talk about in boats or airplanes - that it rolls, which means side to side; that it pitches, which means front to back; and yaw, for it turns, like if you turn your head, you are turning your head in the yaw di rection.

Those are just the words that people use to
talk about which way something is turning. So, if l was trying to describe a boat, l might say my boat is rolling over because the wi nd is pushing on the sail; or if I go up and down on a wave, it pushes back and forth. And I might say in an airplane that l'mturning my head in a yaw direction, or l'mturning in that direction (indicating). That's a way of describing these things in a more formal sense.
Q. So, aml correct, then, that the 6 degrees of freedom that are shown here involve being able to move linearly al ong all three of the axes in three-di mensional space as well as rotate on all three? A. That's correct. There's six because there are the three axes moving, and there are three ways of turning. Q. Okay. Now let's take a look at the actual other figures in the application. Could you tell me what that figure is?
A. Sure. This is Figure 4. It's in your notebook, page 56. And here Mr. Armstrong is describing what he calls -- one of the ways in which he sees his idea. That is what's called an "embodi ment." He says: The trackball-type embodi ment.
"Enbodi ment" is a special word that's used in patent applications. It says "One of the ways that my invention can be built." And it's often that you make
examples of these to show people different ways you could make the whole idea.

So, he's explai ni ng here that in these figures -- 4 is one of the set - that this trackball-type is a hand-operable 6-degree-of-freedom controller. And he says: Trackball 12-- here we see that ball we tal ked about, just learned about how it moves. It's now -- that Trackball Number 12 is sitting in the middle of this mechanism

One thing that we'll see a lot when we look at patent drawings is you'll see a little number with a line. That's just a way of tal king about a particular thing in the drawing to try to -- instead of using words Iike we do in normal discussion, like "the door over there" or "the wi ndow on the side," it's much easi er for people making these drawi ngs -- because there are so many pieces -- that they just give numbers to the pi eces. So, that 12 refers to the same 12 in any pi cture where we see that number 12 pointing to a ball. That's concept ually the same ball; in other words, that's the same concept he's carrying forward. Q. Okay. And, in fact, does that Ball 12 correspond to that graph that we were looking at a minte ago? A. Exactly. If we look at the Iast sentence that is hi ghl ighted, that Trackball 12, whi ch in this example is

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the hand-operable single input member operable in full 6 degrees of freedom He's saying --
Q. I'msorry. What does it mean to be operable in full 6 degrees of freedom? Because this is an important concept we're going to talk about. I just want to make sure that people understand it.
A. In this case 6 degrees operable means it moves in 6 degrees of freedom and it works in the sense that it out puts data or information about its motion in those full 6 degrees of freedom
Q. Okay. Now, did you prepare an ani mation; or did you have an ani mation to hel p the jury understand how this particular device of Mr. Armstrong's works?
A. Yes. There is an ani mation that will show how this device moves.
Q. And I'm going to ask if we could play this and if you could just try to explain to the jury, as it's pl aying, what's going on.
A. Sure. This is showing the ball moving in the different directions, roll -- and now if l move it forward and backward, you'll see the ball and that green ring around it move together, al ong with the whole pl atformslides back and forth.
Q. Okay.
A. So, again it moves -- you can turn the ball in each
of those di rections; but you can al so grab the ball or that little collar around it and push the whole assembly either back and forth, left or right, or up and down. Q. So, then, the ball and the thing around it are rel at ed to each ot her in some way?
A. That's correct. And you can see that - it will get called a "collet," but it's also-- l like the word -- l think he al so says "collar" at one point. It's kind of like the collar around your neck and your shirt. It's around it. It can turn rel active to it. But if you move the ball from left to right, the collar goes with it. So, the two are attached toget her mechanically; and it actually is a way to hold -- you don't want to try to push the ball or lift the ball up and down. It's a way to move that ball in the different di rect ions.
Q. Okay. Thank you.

Now, Mr. Cawley had identified this drawing.
This is a figure that Mr . Caw dey had put up on the screen. Have you seen that?
A. I've seen that picture before, yes.
Q. Okay. And Mr. Cawley was saying that this yell low -- do you recall -- that the collet was some type of a second input member?
A. Well, it is described here, as you can see, as a
secondary input member for use maybe for entering ot her parameters different from the 6 degrees of freedom If we look here, the trackball in the middle -- that's 12-- can be moved on all six axes. That ball al ways can be moved on all six axes. The collet around it, even though it moves with the ball, can be twi sted a little bit. So, you could rotate in a twi sting sense the same way you might turn a knob. You can twist that extra collar around the ball, but it at all times has to move with the ball. It can never move separately from the ball. And l think the idea that is bei ng expressed here is that that extra secondary input member adds another little bit of functionality that might be used a different way, like a volume control, in essence. That's an idea.
Q. Okay. And the part that's in pink that Mr. -- that Anascape did not highlight to the jury, what does the pi nk part mean?
A. Well, that's a very important point, is that this trackball input member is al ways measured and movable on all six axes.
Q. Okay.
A. These are words from the application on page 27 where the inventor, Mr. Armstrong, is describing how his i dea works. And he's saying that, in fact, that member
may be interpreted on all six axes and that 1 can get an additional separate kind of i nput from the collet around it.
Q. Okay. Is it true, then, that that Item 12-- we still see that Ball 12 . So, is that ltem 12 still, by itself, a single input member that can be movable in 6 degrees of freedom?
A. Yes, it is.
Q. And is that exactly what Mr . Armstrong's application says?
A. Yes.
Q. Okay. But, of course, there's al so ot her things that you can do and there's a secondary i nput that -A. That's correct.
Q. Now, that doesn't affect the ball from being able to be operated by itself in 6 degrees of freedom does it?
A. No. You can al ways operate the ball in 6 degrees of freedom
Q. Okay. Now, if l go to the next embodiment in Mr. Armstrong's application, could you tell the jury what this is?
A. Sure. This is a variation of the trackball idea. Here, we can see that it's designed with a ki nd of an El ement 142, whi ch is a ni ce comfortable handle. The
idea here is that you would rest your arm on that while you were operating the Trackball 12.

And there's al so shown some buttons up here on the front which would be like the buttons on a mouse or a trackball that you could click to control your personal computer.

Now, do those buttons have anything to do with the single input member being movable in 6 degrees of freedom?
A. No, they don't.
Q. Okay. Are those buttons -- can they be rel ated to that collet that we saw around the ball?
A. No. They're just buttons, like buttons on the surface of a mouse or buttons on a phone or something. Q. So, you have a 6-degree-of-freedom el ement in here; but in addition to that, you have some buttons that you could use for other things.
A. That's correct.
Q. Okay. Now, that's that same Ball 12 that you described to the jury earlier, right?
A. That's right. It's the Ball 12 in the middle there.
Q. Okay. And the specification in the jur or notebook at page 18, you just described that the trackball is a hand- operable single input member, right?
A. That's correct.

Okay. Now, could you tell me about this next embodi ment?
A. Sure. This is an example where the same Ball 12, if we look, has been kind of mi ni at ized and put in a handhel d remote controller, like a TV remote controller. And you woul d hol d this in your hand and oper ate the ball with your thumb. And it shows again some buttons down here (indi cating). And it expl ai ns how Trackball 12 - which in this example it's a hand-operable single i nput member. So, his text is explaining that you operate this with your hand; and then there is a single i nput member, that ball, which is operable - that is, ret urning information - $\quad$ in a full 6 degrees of freedom Q. Okay. Now, can you explain to me why -- it says "single." And you just told the jury that that ball is a single handhel d operable nember in 6 degrees of freedom But my question to you then is: If it says "single," why are -- what about these ot her buttons? Can you fai rly say that, in fact, that's a single thing when you have all these ot her buttons?
A. Yes, because what the invention is describing is the whole idea. The i dea of buttons on a remote controller by themsel ves is not the i nvention. In ot her words, the idea that you can have buttons on a remote
controller is a well-known idea that existed long bef ore this. So, what the i nvent or is describing is what is uni que about his idea; and that is that he's got a single i nput member for the 6 degrees of freedom Also, the buttons don't input positioning or 6 degrees of freedom i nformation. They're buttons Iike any other button on a remote.
Q. Okay. So, it is your understanding that it is still describing a single input member

6- degree- of-freedom device as I ong as it has one thing that can do that, regardless if it has other buttons? A. Right.
Q. Okay. And do you remember Mr. Cawley showed this figure and had Mr. Armstrong testify that because there were more buttons there, that there was a multiple input 6- degree- of-freedom device? Di d you hear that testimon?
A. I did. I think it's incorrect.
Q. Okay. Why is that incorrect?
A. Well, because we have to thi nk in the mi nds of a practitioner. As an engi neer looking at this, l know what buttons are for; and $I$ know what trackballs and controllers and -- motion controllers are for. And when I I ook at those buttons, I'm not going to think, "Okay. The buttons are gi ving me the motion. The motion comes
from the ball, that l rotate that ball, l push that with the ball." That's the idea we're seeing here for inputting the 6 degrees of freedom We're not seeing the idea that, "Gee, I could come down here and type a number in; and that number is the position l want to be in next." That's not the idea.
Q. Okay. Thank you.

Could you just briefly describe this next embodi ment in Mr. Armstrong's 1996 application?
A. Sure. Here again, he's showing that the trackball-type device with the Ball 12 can be mounted on a keyboard. And again he's expl ai ni ng how it mi ght be an enhancement to a known keyboard. This is a standard personal computer keyboard.

And this, l think, gives us a better understanding of why these buttons are not involved with an input member because that's something that's been known for a long time. The invention is not typing numbers in from a keyboard. The invention is the idea of this -- this particular idea being expressed here in this application is that ball and how you can use it to input positional and angul ar information.
Q. So, then, are these drawings that we're looki ng at, these different things, just different applications of Mr. Armstrong's one input, 6-degree-of-freedom idea?
A. That's correct. He's showing ways that might be combi ned or used wi th ot her known technol ogies and how it might be mounted in them and how that might work. Q. So, even though there's all of these keyboard buttons here and, in fact, there is even that little collet, it looks like, that goes around the ball --
A. That's correct.
Q. Even though all those ot her things are there, is there still a single i nput member that's operable in full 6 degrees of freedomlike the application says? A. Yes.
Q. Now if l could ask you to take a look at the next one.
A. This is a variation of the trackball idea. In this case 12--if you look at it here (indicating) -- is the ball, and it has a handle attached to it. So, instead of putting your fingers on the top of the ball and pushing it back and forth like a trackball, you can just grab onto the handle and then tilt it fromside to side or push it back and forth or lift it up and down by hol ding onto the handle.
Q. Okay.
A. Of course, you can't turn the ball over completely anymore. Ri ght? You've now li mited how much you can tip it because the handle's there, but you've provided a
different way of hold ding onto that ball. And, again, you get a full 6 degrees of freedom because you can lift the handle up and down, push it back and forth, pull it side to side, and then tip it and in whit ch way around it's --
Q. So, then -
A. -- it's in the vertical position.
Q. So, then, are you, then, saying that that first figure we looked at with those axes of 6 degrees of freedom even though that handle looks like it might just go to the left and right and forward and backwards, it actually does much more than that?
A. Yes. It actually moves in all of the 6 degrees of freedom shown for the Ball 12 in the initial picture. It's just that you cant rotate it as far because if we try to turn that handle, we can only really turn it some amount of angles from vertical before we run into the -our hand will hit the top of the container.
Q. Okay. And, again, this embodiment is in the jury not ebook at page 29.

Now, all of these embodiments we've seen so far, does every one of them enable somebody who's using it to hold it with a single hand and then operate it in a full 6 degrees of freedom regardless if it's a handle on a ball or the ball.
A. Yes. You can operate any one of these embodi ments we' ve seen, or variations, with one hand; and your hand is moving rel ative to -- and so is that single member you're hol ding -- movi ng rel ative to the rest of the pointing device, to the housing of the --
Q. So, then --
A. -- device.
-- at this stage does the application indicate to you that it's an idea that rel ates to a one-handed operation device?
A. Right. We've seen a device that operates with one hand and lets you put in a full 6 degrees of freedom with that one hand.
Q. Okay. And that's exactly what the patent application is telling us, too, right?
A. Right.
Q. Okay. And just to clarify, the figures are in the jury notebook at page 64. The text is at page 29, right?
A. Thank you. That's correct.
Q. Now, here's another one. Could you tell the jury what that one is?
A. Yes. This is another variation or embodi ment of the invention. This one uses a different design. We'II now see it looks more like a hockey puck maybe, a small
round, cylindrical object. And here it's called a 6- degree- of -freedom handle. And this is just showing how it would replace or mount in a keyboard the same way that the little ball-based 6-degree-of-freedom input device did. This one is made with a different design internally or a different way of building it, which we'll look at in detail.
Q. I'mglad you mentioned that. I mean, Mr. Armstrong disclosed many different ways to make -- did Mr. Armstrong disclose many different ways to make this particul ar one-hand 6-degree-of-freedom device in this application that he refers to as the "warehouse application"?
A. Yes. In his application he describes a lot of ways of building this single input 6-degree-of-freedom device, one with a ball and the sliding plates we saw. We're going to see another variation here where all of the sensors are activated by this kind of cylindrical handle we hold. And we'll see a lot of variations in how it's built internally, the internal parts of this. Q. So, Mr. Armstrong then disclosed -- the application is very thick, isn't it?
A. Yes.
Q. It's got a lot of stuff in it.
A. Yes.
Q. And in your view, all the stuff in it, does it rel ate -- regardless of how many pi eces and how many figures are disclosed, do all of the things in it relate to buil ding one of these things -- regardless of whet her it's in a keyboard or a remote control or anything, building one thing that has 6 degrees of freedom that you can hol d with one hand?
A. Yes. But l'm going to make -- because l've read every pi cture in here --
Q. Please do.
A. And just to make it very clear, there are ot her pi ctures and ot her sections in the application which deal with some other i deas that are not rel ated really to this litigation at all. There are some ideas in there for the internal structure of a pressure-sensing swi tch and a couple of things like that that are not in the claims of the invention at all and are not really rel ated to what we're tal king about here.

So, we're not going to show those pictures because they're an entirely different technol ogy that's not really i nvolved in the things we're tal king about here.
Q. Okay. Now, in those other things that you're tal king about that you're not going to show the jury, di d any of them have in them a 6-degree-of-freedom
controller where it split the 6 degrees of freedom bet ween more than one handhel d el ement?
A. No. No. And they are not at all rel ated to this. I' m saying they're very detailed designs for the inside of a switch, for instance, things that aren't in here at al I.
Q. So, just to be clear, is there any di sclosure anywhere in the 1996 application of a 6- degree- of -freedom device where the 6 degrees of freedom are split beyond having just input member? A. No. The only di scl osure is a single handle, a single input member.
Q. Okay. Could you describe to the jury this one? And l believe you al so have an ani mation for this one. But could you qui ckly just describe what the figure is showing? It's a little bit of a strange format.
A. Sure. Let me take a minte to explain this drawing and how -- talk about it a little bit just to get us ori ent at ed.

This is the handle (indicating), the same handle design. It's got a slightly different number because there's two variations of that handle. This one is 300. It is attached to a stock. And these parts that are shown here (indicating), this is what's called an "exploded drawing." It's as if you took the physical
object apart and just sort of lifted up the pieces and they're floating in the air. The drawing shows each of the pieces as if this thing was taken apart. So, it's put --
Q. Let me ask you, then: It's kind of like an assembly drawing where it's showing you how the pieces fit together?
A. Ri ght. And this was kind of complicated; so, I would hope 1 di dn't get a set of directions like that with something l bought at the store. So, the arrows are showing how these pieces go together vertically. This is a vertical exploded di agram These pieces are just as if you'd pulled it apart vertically. Q. Okay.
A. And you're seeing each of the pi eces here li ned up in this figure. It is in your jury notebook at page 72. And it shows a lot of the pieces, and that's so he can expl ai $n$ how this works. I $n$ ot her words, for an engi neer l ooking at this, how does that thing come toget her and work. And we'll see an ani mation of $i t$ and $t a l k$ more about how those pi eces actually work toget her to make this thing operate.
Q. Okay. Again, though, bef ore we do that, is there a si ngle hand-operable el ement here that's movable in 6 degrees of freedom?
A. Yes, there is. And let me just give a little more background on it. There is the handle (indicating) that you operate with your hand. 317 is the top of the housing or the case. So, all the parts under 317 are inside of the keyboard or inside of the input device. All of these parts that we see down here (indicating), when they are assembled, are not in view of the person that's hol ding the handle. They are inside. Q. Okay. So, you can't touch any of the parts under this Item 317-- you can't actually touch with your hand any of those parts when it's put together?
A. No, not when it's assembled in the case.
Q. So, just this one handle sticks out above the case ki nd of like those keyboard examples that we saw earlier?
A. Right. In that keyboard example we saw the little -- it looks like that "hockey puck" shape, I call it, sticking out of the top and underneath that -that's the top surface of the keyboard (indicating). Q. Okay. Thank you.

Di d you prepare some type of ani mation to hel $p$ the jury understand this enbodi ment?
A. Yes.
Q. And when I say "embodi ment," I mean this example of Mr. Armstrong's application.
A. Right. We're going to use those kind of terms a lot. An embodi ment, again, is an example; and this is an ani mation that shows how those pi eces come together and how that idea works.
Q. And how it actually moves in 6 degrees of
freedom --
A. Right .
Q. -- and operates the various sensors?

Okay. Could we run that ani mation, please? A. First, it's coming together. And then we'll see how it moves once it's put together. Back and forth, you can see the handle slides rel ative to the things; and you'll see under neath some of these parts moving and changing. And that's how it works. See? As you pull it up and down, it activates that little sensor in there as it goes up and down.

The turning part comes fromthe top. The very top of that handle rocks back and forth rel ative to the bottom so you can enter it -- and you can twist it to get the yaw.

MR. PRESTA: Coul d we just run that one more time, please?
A. Yeah. Let's look at that again. That's a little hard to get in one vi ewi ng.

Back and forth, side to side, and up and
down. And then here, the tipping. And finally, yaw. BY MR. PRESTA:

Okay. So, is that thing right there what you described earlier as a single handle that can be movable in all 6 degrees of freedom?
A. Yes. That's the handle or the input member that you grasp in your hand and move in all 6 degrees of freedom
Q. Okay. Now, Mr. Cawl ey had poi nted out

Mr. Armstrong said, "WEll, there's these other buttons here; so, that's not one el ement moving 6 degrees of freedom There's three there. That supports a three-el ement 6-degree- of -freedom device." Do you agree with that?
A. No. No. Those buttons are buttons the same way we have buttons on a mouse. And if you think about your mouse, your mouse moves on a table in two axes; but the buttons don't have anything to do with the motion. The buttons are just a way to enter information into your computer. And those buttons are moving around, but we don't consider that the motion of the buttons has anything to do with the motion of a mouse. And the same way here. There are a couple of buttons shown that actually, just like a mouse button, you might grasp them with your fingers while you're using this device if you
want to click on something on the screen.
Thank you.
Agai n, there's a few more figures.
Obviously, there's a lot of figures in this application. Could you tell the jury what this next one is and -A. Sure. This is another pi cture describing a variation of the controller we just looked at. Again, there is the handle, the single input menber, 300. In this case it's been shown that it could be a little bit bi gger and inside of there could be a motor to give vi bration. It still has the same general structure. Here, 317, this thing here (indicating) shown with the Iittle di agonal lines, this is the top or the outside surface.

Again, this is a ki nd of a drawing that you're probably familiar with, people who are i nvol ved with engi neering; but what we're looking at here is what's called a "section" or a "cross-view." This is I ooking into this device kind of like we've cut through it and we're hol ding it up and looking through it, like a section through it. So, we're not looking down from above or from an angle; but we're ki nd of looking right into it.

So, now when we see this ki nd of hash line, that means we're looking at the edge of something that's
been cut.
Okay.
A. So, that would be like the top surface of a keyboard. I magi ne we've sawed through it and now we can see all of these parts that are inside that are underneath the top of it. The user's hand is out here (indicating), hol ding onto that ball and moving it.
Q. Does this al so show a single input member -- a single handhel d input member that is movable in 6 degrees of freedom?
A. Yes, it does. And the text, as we can see again at page 13 in the application -- or in your juror notebook, sorry --
Q. Okay.
A. -- is a 6-degree-of-freedom joystick-type embodi ment. And this is one of the figures describing them There's quite a few of them
Q. So, because he had trackball-type embodi ments and he had joystick-type embodi ments.
A. Right. We've seen the trackball-type; that is, the ball. Now we're on the joystick-type. And l don't want to confuse the joystick-type with the handle on the ball because that's kind of -- we mi ght call that two ways. We might say, "Well, that's got a handle; so, it's a joystick." But it's got a ball. So, he's treating it
as one of his ball - trackball embodi ments. And then there's the joystick-type whi ch just has the handle and no ball.

Okay. Let me take you to the next one. Actually, did you have an animation for $t$ his one so the $j$ ury could understand how it works?
A. Yes.

MR. PRESTA: Coul d we just run --
A. Well, agai $n$ this is just a different view. Now we're getting closer to that view inside, looking at it frominside instead of from above. And here we can see how the i nternal mechani smactivates the sensors bel ow when it's moved back and forth.

The motion of the handle causes those sensors to move i nside and to be activated and to generate si gnals.

BY MR. PRESTA:
Q. Okay. Now, that whole - the whole items moving forward now. That's just to look at the inside, right? A. Right.
Q. But that would normally be stationary. Now we'd be looking insi de it?
A. Right. This animation - first we see it from the outside to see what handle motion is happening. Then we come down. We fly i nside to see how the internal parts
are actually working in Mr. Armstrong's idea.
And, again, is that a single handle that's moving in 6 degrees of freedom? It could actually move in 6 degrees of freedom right?
A. That's correct. That handle can move back and forward, side to side, up and down, and then be twi sted or rocked in any angul ar sense at the very top.

Okay. Now, these buttons we see agai $n$, do those buttons in any way operate any of these sensors that allow it to be going in 6 degrees of freedom?
A. No, they don't.
Q. Okay. So, these are actually sensors?
A. These are - these little elements here are the sensors that are being activated.
Q. And the idea is so they can sense when your single hand moves in any one of those 6 degrees of freedom there is a sensor for each way, right?
A. That's correct, yes.
Q. Okay. Thank you. Again, this looks like a previous one. I don't want to spend too much time if there's nothing new that you think the jury can get from it, but this is another one.
A. Yeah. l'Il just kind of give a quick overview of this one. Again, the handle, single input el ement, a different design inside the handle, the way the rocking
switches are mounted. And down bel ow, al so there is some different design. There is no rocker. There is a pi ece here (i ndi cating), ki nd of like a camshaped piece. It's a different way of building the idea.

In ot her words, the fundament al idea here is a single handle that's movable in 6 degrees of freedom and inside we're seeing different ways to actually make that -- mechani cally to make that happen; $i n$ ot her words, the different levers and cams that make that idea possi bl e.
Q. Is it fair to say that the reason the invention is so thick and has so much stuff, anytime-- l'm sorry. Not the i nvention. Let me strike that.

The reason the 1996 application, with all of Mr. Armstrong's ideas in it, is so thick is because he showed so many different ways to build a single handle 6- degree- of - freedom devi ce?
A. That's correct. There are a lot of different desi gns shown on how you could implement it i nt ernally. Q. But what's the common theme of every one of those thi ngs?
A. They all have a single handle that you can move in every direction and twist fromleft to right, forward and backward. They have a single 6-degree-of-freedom i nput el ement.
Q. Okay. Now here's another one, and I don't want to spend that much time on it. This is another example, isn't it?
A. It's just another variation. This one is more compact. More of the sensing mechanismis in the handle, less inside the case. That's just again a slightly different way of building that same functionality.
Q. Okay. So, again, the reason there's so much text in the application and so many figures is because he's showing all different kinds of ways in which he could build this single-handle 6-degree-of-freedom device, correct?
A. That's correct.
Q. Thank you.

Now, did you hear Mr. Armstrong's testimony in this trial?
A. Yes, I did.
Q. And, in fact, when Mr. Gunther was cross-examining Mr. Armstrong, did you hear this part of his testimony? A. Yes, I did.
Q. Okay. And the testimony was rel ating to Figure 4 with the collet around it. It tal ks about maybe 6 as well, which are really generally the same; al so Fi gure 9, where we had these buttons and this ball. And
he also talked about Figure 20 where we had what we've just ani mated and showed you in that exploded view.

And what did Mr. Armstrong testify about every one of those figures?
A. Well, he said: In every one of these embodi ments, there is a single input member operable in 6 degrees of freedom?

He sai d: Yep.
And that's true, right?
A. Yes.
Q. You understand that, right?
A. Yes.
Q. Is there no debate about that in your mind
A. There is no debate about that.
Q. Okay. Now, Mr. Cawl ey pointed again to these Iittle buttons on the side (indicating) and got Mr. Armstrong to testify that those were additional inputs. Could you again expl ain why that's correct?
A. Well, they are not additional inputs that are rel ated to motion or the 6 degrees of freedom or describe anything ot her than motion from a single handle. They are just buttons, and the idea of button has been known from way before this. They are just buttons like the buttons on a mouse.
Q. So, Mr. Armstrong's testimony is a hundred percent
accur ate, right?
A. His testimony there was correct, yes.
Q. But do you agree with Mr. Cawl ey's then later represent ation about those?
A. No.
Q. Okay. Now, agai $n$, in fact, this is - did you hear Mr. Cawl ey's questioning of Mr. Armstrong?
A. Yes, I did.
Q. Okay. And he says: Okay. Now, what are those thi ngs that we now can see much larger that are marked 376?

## Do you see that?

A. Yes.
Q. And Mr. Armstrong said: Those are additional i nput members.

Do you see that?
A. Yes.
Q. And then the answer agai $n$ was: They're buttons on the handle. They are additional i nput members.

See that?
A. I see what he said, yes.
Q. And then Mr. Cawl ey said: And di d you actually describe to the Patent Of fice in the text of your patent those additional i nput members?

And Mr. Armstrong said: Yes, I did.

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Now, does that testimony in any way indicate that that handle that we were seeing is -- or these buttons in any way contribute or take away from the fact that that embodi ment has a single input member that's movable in 6 degrees of freedom?
A. They don't change it at all. All they say is that they are buttons, that you can have buttons as part of this invention.
Q. Kind of like the buttons on the keyboard that we saw?
A. Right, like the buttons on the keyboard or the buttons on a remote controller or the buttons on a mouse.
Q. Do you think those buttons are at all rel evant to the analysis that we're doing here for the court and that the jury is trying to decide?
A. They are not relevant to the analysis of the motion or the number of input elements at all. No, they are not rel evant to that.
Q. Okay. Thank you.

Now, Mr. Cawley al so put up this slide. This is the slide that he used with Mr. Armstrong. And he again was pointing to the buttons, and he highlighted -this is his slide. He's highlighted (reading) while the design has the button, externally operated for
additional input.
Do you see that?
A. Yep.
Q. Okay. Now, what Mr. Cawl ey didn't highlight is this part (indicating). What is that part telling us?
A. Well, this is Mr. Armstrong expl aining in his application that the button is for additional input ot her than the 6-degree-of-freedomi nput. Q. Okay. So --
A. So, it's not being used for the 6-degree-of-freedom input; it's just an "other" button for other purposes. Q. So, would it be appropriate, then, for the jury to take from Mr. Cawley's examination that, in fact, those buttons assist with the 6-degree-of-freedom control of the device?
A. No. That would be incorrect. They are compl et el y separate.
Q. Okay. And the application makes clear -- the 1996 application, at page 39, makes that perfectly clear that Mr. Armstrong knew it --
A. Right.
Q. $\quad-\quad$ right ?
A. Right. Right there in the application, it says they are ot her than 6-degree-of-freedom i nput. Q. But is that consistent with Mr. Cawley's
questioning of Mr . Armstrong?
A. I don't think so, no. It's inconsistent.

Okay. So, Mr. Armstrong, we saw that he testified that, in fact, the handle itself is movable in 6 degrees of freedom right?
A. Right. He testified that the handle was movable in 6 degrees of freedom and he tol d the Patent Office in 1996 that those switches were for other than 6- degree- of - freedom i nput.
Q. Okay. Thank you.

Now, in fact, the buttons that Mr. Cawl ey was pointing to are shown in this other figure that are just shown as the very top of that one that we ani mated, right?
A. That's correct. This is actually a slight variation on the top.
Q. Just taking a look at the inside of the top of that handle in a blown-up view, this is just that handle that we were looking at?
A. Right. This is that hockey puck handle opened up and showing the components inside of it.
Q. Okay. So, are these things on the outside there really just comparable to keyboard buttons or buttons on this calculator-looking thing or this TV remote control thing?
A. Yes.

Okay.
A. They're just buttons.
Q. All right. And even though these have buttons, does it take away from the fact that there is a single i nput member that's movable in 6 degrees of freedom? A. No. It's - the idea is the single input - the si ngl e 6-degree-of-freedominput member, not the i dea that we could put buttons on an input device or buttons on a keyboard.
Q. Okay. Now, let me just ask you: So, you've been through all the figures now, right?
A. Yes.
Q. All the figures that you thought were rel evant for the jury to see that actually showed a product instead of just little pieces of the product?
A. Yes.
Q. And do you have, then, an opi ni on as to what a common theme is in every figure in the application that shows this type of a device?
A. Yes. The common theme is, very simply, that there is a single hand-oper ated i nput member that provides you a full 6 degrees of freedom-- forward and backward, I eft to right, up and down, and rotation.

MR. PRESTA: Your Honor, wi th your
permission, l'd like to ask Mr. Dezmelyk to demonstrate a couple of controllers in front of the jury.

THE COURT: All right.
MR. PRESTA: Thank you.
MR. CAWLEY: Your Honor, if l could lodge an objection. I can't hel p but notice that three of the items that apparently are about to be asked about are Mr. Armstrong's prototypes, and there is nothing in this expert's report about Mr. Armstrong's prototypes.

MR. PRESTA: Your Honor, they're in evi dence and they were demonstrated in trial and we identified them as a demonstrative --

THE COURT: Overrul ed.
MR. PRESTA: Thank you.
BY MR. PRESTA:
Q. Thank you, Mr. Dezmel yk. I'd like to ask you first to take a look at -- and do you recognize the -- just the three -- were you here when Mr. Armstrong explained some of his testimony rel at ed to those three?
A. Yes, I was.
Q. Okay. The first thing l'd like you to do is, for example, take the one with the bl ue ball. Okay? And di d you hear Mr. Armstrong's testimony about that one? A. Yes, I did.
Q. And that is Exhi bit 428, Plaintiff's Exhi bit 428.

Okay. I'd like you just to explain to the jury: Is that an example, in your view, of a single input member 6-degree-of-freedom device that you can hol d with a single hand and move in 6 degrees of freedom?
A. Yes, it is.
Q. Could you demonstrate how that would be operated?
A. Sure. I would grasp the ball. I can move the ball to the left, to the right, forward, backward, up and down; and then l can twi st the ball. You see it rotating. And l can tip it forward and backward (demonstrating). And that lets me grab this ball and mani pul ate it in each of the directions -- forward and backward, side to side, up and down, and then rotationally l can turn it.
Q. Okay. Do you have rotation in all three -- pitch, roll, and yaw?
A. Yes, I can.
Q. Okay.
A. I can pitch it forward, roll it side to side; or I can twist it in yaw.
Q. So, is that a 6-degree- of-freedom single input device?
A. Yes, it is.
Q. Is that consistent with some of the figures you've

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seen in Mr. Armstrong's 1996 application that we've just
Iooked at?
A. Yes, it is.

THE COURT: Counsel, we're going to go ahead and take a break.

Ladies and gentlemen, l'Il ask you to be back at quarter past. Agai $n$, $p l$ ease remember my instructions not to di scuss the case among yoursel ves.
(The jury exits the courtroom 9:59 a.m)
THE COURT: We'Il be in recess until quarter past.
(Recess, 10:00 a.m to 10: 15 a.m)
(Open court, all parties present, jury present.)

THE COURT: Counsel.
MR. PRESTA: Thank you, your Honor.
Q. Again, Mr. Dezmel yk, if l could ask you to step down, with the permission of the judge --

THE COURT: Sure.
BY MR. PRESTA:
Q. -- and pick up agai $n$ the one with the -- the microphone first. Thank you.

And if you could take the one with the blue ball and put it over on that ot her side of the table
just so we can take a look at them one at a time, pl ease.
A. Certainly.

Okay. Now, could you tell me, first, the exhi bit number, the plaintiff's exhi bit number?
A. This is PX 428.

MR. PRESTA: Okay. And we ask that that be admitted in evi dence.

BY MR. PRESTA:
Q. Could we now just again j ust demonstrate how that works?
A. Yes. There is a ball that's grasped with one hand and this ball can be moved (demonstrating) in any of the directions -- forward and backwards, side to side, up and down, and then rotate, as well, twi sted either which way or turned forward and backward or side to side. Q. Okay. Could I just get you to look at the screen for just one second? And this is that figure you showed us in the begi nning that had the Ball 12. Are those the motions that you were just describing to the jury that Mr. Armstrong's prototype can do?
A. Yes.
Q. And let's just back up for a second. You heard the testimony from Mr. Armstrong that this was one of his -the controllers that he had devel oped and built himself,
right?
A. That's correct.

Okay. Do you have an opi ni on on whet her that's a si ngle i nput member 6-degree-of-freedom device?
A. Oh, yes. It's absol utely a single i nput member 6- degree- of - freedom device.
Q. So, i n your view, does it appear to have a rel ationshi p to all of the figures in the 1996 applicati on that we had looked at?
A. Yes, it does.
Q. Okay. Could l then get you to maybe pull up the one with the red ball and put it up there and first, please, read of $f$ the exhi bit number?
A. The exhi bit number here is PX 426.
Q. Pl aintiff's Exhi bit 426 .

MR. PRESTA: Agai $n$, we ask that that physical exhi bit be put into evidence.

BY MR. PRESTA:
Q. Could you now agai $n$ expl ai $n$ to the jury how that works? And I believe -- just be careful --

Mr. Armstrong expl ai ned that $I$ think it's not in fully working order now. But based on his testimony and your understanding of $i t$, could you expl ai $n$ how it works? A. Ri ght. I'm goi ng to handle this ki nd of del icately because it is an old piece of hardware.

There is again a ball that can be grasped (demonstrating) and can be moved in different directions. It does seemlike it's a little fragile inside, and l don't want to damage it. But it could be moved up and down (demonstrating) and then side to side and tipped.
Q. Again, is that a single handle movable in 6 degrees of freedom?
A. Yes, it is.
Q. Okay. Is that again consistent with the drawings that you saw and you reviewed with the jury in the 1996 application?
A. Yes, it is to the extent it's -- l don't want to take it apart here. It seems kind of delicate. I don't want to flip it over and look it up and start picking up the pi eces.
Q. Yes, please. I know that's probably an important item of Mr. Armstrong's.

Could you now switch over to the other one with the flat handle, please, the third one of Mr. Armstrong's prototypes that he demonstrated to the jury? Could you tell me the exhi bit number on that one?
A. This is PX 425.
Q. Thank you.

MR. PRESTA: And we agai $n$ ask that that

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physical exhi bit be put into evidence.
BY MR. PRESTA:
Q. Now -- okay. Now, agai n, could you demonstrate, based on your understand of Mr. Armstrong's testimony, as to what that thing does?
A. Yes. Again -- in this case l'm going to have to hol d the case because it doesn't have a bottom on the case and I don't want to damage the internal parts by moving it while it's sitting on the surface, but it would normally, of course, like these devices, be in a case.

The handle on top can move backwards and forwards (demonstrating), side to side -- it seems like it's sticking a little bit -- and up and down.
l'm having a little trouble with -- maybe -this guy looks like he's stuck in the side to side direction for some reason. I don't want to force it. Q. Yeah. Please don't break it. But just explain consistent with Mr. Armstrong's expl anation of what it was and, in particular, if you recall the dream he had that he testified about when he came up with that. A. Well, if we look at it here, if we turn it over, we can see some of the same type of mechanical design or el ements that are described in the pictures. You can see the rockers that rock back and forth as we move this

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(demonstrating) in a vertical direction. You can see one right here (indicating).

This example doesn't have the circuit card or wiring yet installed, but it does have some of the parts we saw that are the levers that move back and forth. Again, as it goes up and down or, say, when l rotate here (indicating) in the yaw direction, in this example, I can see it actually moving the internal lever, like we saw in the drawing.
Q. So, again, is that something that would be designed to be operated by one hand but movable in 6 degrees of freedom?
A. That's correct.
Q. In fact, does that -- does the design of that look familiar to you relative to some of the figure that is Mr. Armstrong -- that you showed in his 1996 application?
A. Yes. It's similar to the exploded vi ew or this one we're showi ng here, Fi gure 21 . Not every mechani cal part is present in this prototype or design study, but it shows some of the same elements that are located here and in the same general design.

I don't know if we're going to be able to see it well; but the cam the shaft that does this rotating, rocking (demonstrating) -- if we can see it when l--
l'm going to rotate the yaw handle. You will see inside thi s part (indicating) if you look. You can see it. It tips back and forth. That same el ement is present in the drawing. It's right there in the midde.
Q. Which one do you want me to point to?
A. Ri ght about where you are, just above where you are.
Q. Ri ght here (i ndi cating)?
A. Right there, yes.
Q. Okay.
A. So, this is kind of a working study like many engi neers do for this type of $t h i n g$ where we build some prot otype and try it and then we make a more formal design i dea for the patent.
Q. And then --

MR. PRESTA: Could I go to Sl ide 16 , please?
BY MR. PRESTA:
Q. Wbuld it be your view that Mr. Armstrong's prot otype that you're looking at there could, for example, correspond and be incorporated into the keyboard that you showed earlier?
A. Yes. It could be this -- again, this is sort of a study. But the idea is, yes, that this is simiar to the hockey puck top that we have in that one. Q. Okay. Thank you.

Now, have you seen ot her single input member 6 degrees of things in the world?
A. Yes.

Okay. Do you see another one there on the table?
A. There is one here. That's correct.

Okay. Could you bring that one over now? And I just want you to -- now, let's see. Could you just describe -- that's not one of Mr. Armstrong's prototypes that he demonstrated earlier, is it?
A. No, it's not.
Q. Okay. Coul d you just show the jury again how that oper at es?
A. Sure. This device has a handle. It sits on the table, has a handle. I can put my hand on it; and l can move it forward and backward, side to side, up and down (demonstrating). And then 1 can tip the upper part in various directions. So, I can tip this forward; I can tip it side to side; and l can twist it.
Q. Now, when you do each one of those movements, are there sensors that are sensing that?
A. Yes, there are.
Q. Okay.
A. When 1 move it horizontally and back and forth, there are sensors in the base in that position. There are sensors in the vertical portion here that know when

I move it up and down, and there are sensors that detect when it tips or when it rotates in the yaw di erection. So, in your view, is that an example, then, of a single i neut member 6-degree-of-freedom device?
A. Yes. This is an example of a 6-degree-of-freedom single input device. It al so has buttons on the top. Q. Let me ask you -- so, it has buttons. Could you describe -- does the buttons hel p contribute to the 6- degree- of - freedom movement?
A. No.
Q. Okay.
A. But they are useful ul and they are located -- their I ocation is here (indicating), where l put my fingers on them if $I$ was moving this el ement.
Q. Is that somewhat like buttons on a mouse?
A. Correct.
Q. Okay. Now, could you read the exhi bit number of $f$ of that, please?
A. Sure. This is Def endant's Exhi bit 108.

MR. PRESTA: And we would ask that that
physical exhi bit al so be admitted into evidence.
BY MR. PRESTA:
Q. Thank you, Mr. Dezmel yb.
A. Thank you.
Q. You can take a seat again.
$\square$
Now, what l'd like to do is -- now, l know you just went through the figures in the 1996 application; and l know this is an important part of the case. So, l al so want you now to move on and tell us what you did in the next part of your analysis in trying to figure out what the idea was in the 1996 application. A. Sure. The next step is we have to look, of course, at the totality of the application. I've got to look through it and understand the whole thing and find out what the ideas are that are described there.

So, the next step -- we've looked at the pi ctures, which is a good way to start; but we've really got to go through the text and see what's actually written there and what words are used to describe this idea so we get a better idea in detail of what the inventor had in mind when he filed that application. Q. Okay. And did you do that?
A. Yes, I did.
Q. And you prepared some slides to hel p the jury understand that anal ysis?
A. Yes, I did.
Q. Okay. And this is a slide introducing the fact that you are now goi ng to go through and look at the written words in the application, right?
A. Right.
Q. As you just explained.

Okay. And this is in the jury notebook. Again, at page 3 is where the application starts. Could you tell the jury what this is telling us?
A. Sure. The first section that's normally included in this type of thing, just to get us a little orientation, is what's called an "abstract of the di sclosure." And that's ki nd of a fancy way of saying "summary." And the i dea here is you put ki nd of a summary of your idea in a paragraph so the people that are looking at the final patent can get a quick idea of what it's about. It's not necessarily all of the detail, but it gives just a quick idea. Q. Okay. And what does it tell you?
A. Well, it explains here that we have a multiple-axes controller comprised of a single i nput member operable in 6 degrees of freedom rel ative to a reference member. That's the housing. And it says the i nput member can be of a conti nuousl y rotatable trackball-type or a limited rotation joystick-type.

And $t$ here agai $n$ he's sort of given $t$ he overview that one of themis a trackball that you can roll around as much as you want, and the ot her one is Iike a joystick. It has some limited range of motion in each of those degrees of freedom
Q. Are those words consistent with what you saw in al the figures?
A. Yes, they are.
Q. And what are the words, then, telling you?
A. Well, it tells us what the idea is; that is, the -
the idea is a single i nput member that you can operate in 6 degrees of freedom and it is expl ai ned that there can be couple of $t y p e s$ of $i t$, one that's built with a ball and another one that is some joystick-type thing. Q. Okay. And l'm going to turn now to page - it looks like it's written page 7. I note that there's two different page numbers. Because you're understanding that this came out of the Patent Of ice records, of the U. S. Patent and Trademark Of fice?
A. Yes, that's correct.
Q. This is part of what's called the Patent Of fice "file history"?
A. That's correct.
Q. You understand that?

And there's different page numbers that some patent examiner maybe or the applicant put on there but they' ve al so been numbered in the jury notebook in the bottom right-hand corner and this particular page is page 9. So, l just don't want there to be any conf usion that there are multiple page numbers. They existed at
the Patent Of fice and the court renumbered them in the jury notebook and this is page 9 .

You agree wi th that, right?
A. Yeah, I agree with that.
Q. Okay. Thank you.

So, this next page states the summary of the i nvention - in a section titled "Summary of the I nvention." Can you tell the jury what this is describing?
A. Well, the next step in one of these specifications or disclosures is usually a section which is called "Summary of $t$ he I nvention" whi ch describes again what the i nvention is, now in a little more detail than the abstract.
Q. Okay.
A. And here --
Q. Now, you understand, of course, that claims define an i nvent ion, right?
A. Absol utely. The claims define the i nvention. They define the scope. I think we saw in a video in the begi nni ng that they are like a fence around the edge and says exactly where the boundary is but --
Q. And a patent application could have many ideas in it, right?
A. Absol ut el y.
Q. Okay.
A. And they usually do.

Okay. And many times those i deas are summarized in the section of the application called "Summary," right? A. Right.
Q. Okay. Could you go ahead and tell me what $t$ he summary is telling us?
A. Well, it starts off - in this section l've hi ghl i ghted about how it's -- (reading) the controllers - that's what he's talking about -- provide structuring for 6 degrees of freedom physical input by the hand on a hand-operable single i nput member.

So, he's sayi ng, "I' m making a
6- degree- of-freedom single input member device."
Q. Okay. Now, here's another little bit of -- another text that you wanted me to bl ow up.
A. Right.
Q. Can you tell me what this is saying?
A. Well, here he's expl ai ni ng that the i nput member can be a trackball or the i nput member can be any handle fit to be mani pul ated by a human hand, such as a joystick-type handle. But in either case -- no matter what, in either case, the i nput member accepts 6 degrees of freedom of hand input rel ative to the case.
Q. Okay. So, if I understand you, then, regardless if
it's a handle or a joystick, in either case there's al ways an i nput member that accepts 6 degrees of freedom of hand i nput.
A. Right.
Q. Okay. Here's another section of the application.

Could you tell me what this is describing?
A. Sure. This is now more description of the i nvention, and Mr. Armstrong is writing to the Patent Of fice and telling them what an object of the i nvention - or what are the things l'mtrying to achi eve -- is to provi de a 6-degree-of-freedom i mage controller with a single i nput member that you can operate with your hand rel ative to the case. Q. Okay. Here's another one.
A. Here agai $n$, another object is again to provide a 6- degree- of-freedom controller with a single input member.
Q. Is that agai $n$ consistent with what you've seen in the figures and the rest of the text?
A. Yes, it is.
Q. Okay. And here's three things that we've bl own up. Could you tell the jury what those are?
A. Right. Here he's describing some of the ot her aspects of this 6-degree-of-freedom controller. He says it's a 6 degree -- the object of the invention is to
provide an easy-to-use 6-degree- of-freedom controller, whi ch includes a single input member and then which has some structures about how well it can be built internally. And he goes on to other advantages of how his particular design for a 6-degree-of-freedom controller with a single input member can be built effectively and is a good design for this kind of thing. Q. Okay. And he repeats that idea three times on that page?
A. Right .
Q. Okay. Now could you tell me what -- so, did you hit what you believe are the most rel evant parts of the words in the application with --
A. Yes.
Q. - those slides?
A. Yes.
Q. Now, there's a lot of other words, right?
A. Absol utely.
Q. Okay. Now, is there thi ngs in the other words that, in fact, you felt would be important for the jury to understand to get the scope of what this 1996 application covers?
A. Well, certainly because when you're filing a patent application, you're trying to describe your invention; but you al so need to say what its boundaries are because
the Patent Office is going to be looking to see is it somet hi ng new.

So, it's very common to say not only what -an inventor says what his idea is but al so what it isn't. And you do that by contrasting your idea that you've described in the specification with other people's ideas or other patents that have issued before. Q. Okay. And did you I ook for that type of thing in the 1996 application?
A. Yes, I did.
Q. And did you find anything?
A. Yes, I did.
Q. Okay. Could you tell the jury what this slide is?
A. Well, again, this is part of the application from 1996. It's in your juror notebook, page 7. And here Mr. Armstrong is describing what's taught in another patent. He says: Another prior art disclosure -- that is, another patent. This one's the ' 919 patent to

Mr. Mingtai Chang.
Q. Let me stop you. So, you're saying that that is part of Mr. Armstrong's application where he's describing that came before himp
A. That's correct. Another idea that came before him is described in another patent.
Q. Okay. And that patent was issued in March of --
A. In 1994. This is two years before this application. Mr. Chang had received a patent for his inventions which are described in the '919 patent. Q. Okay. What does he say in that part of the specification, on page 7 of the jury notebook, about -A. Well, Mr. Armstrong --
-- about the Chang -- the prior thing that existed by Mr. Chang?
A. Well, he says: The Chang device is basically a 6- degree- of-freedom computer controller. That is, it is a 6-degree- of-freedom controller like his.
Q. Okay. Now, let me just ask you just to clarify:

Di d Mr. Armstrong invent the idea of 6 degrees of freedom?
A. No. No. The idea fundamentally of 6 degrees of freedomis just the way the world works. If we think about just hol ding a beach ball in your hand, you can toss the ball up and down. It can move in three directions, and you can turn it in all those directions. His ideas and inventions are rel ated to a controller that lets you move in 6 degrees of freedom and how to build that controller internally, what are ways that you can build that, and what are some of the components that go into that.
Q. Okay. Mr. Chang, in fact, was before him and you
testified that his -- Mr. Armstrong said that his device was a 6-degree-of-freedom controller, right?
A. Right.
Q. Mr. Chang -- he's recognizing that Mr. Chang's device that came before himis a 6-degree-of-freedom controller, right?
A. Right. It's another 6-degree- of-freedom controller, an earlier one.
Q. Could you tell me what the next section tells us?
A. Well, here --
Q. But again - l et me just stop. The purpose that you're doing here, isn't it, is to try to understand what the scope of that 1996 application is and what Mr. Armstrong's idea was in 1996, right?
A. That's correct. he want to understand what was Mr. Armstrong's idea back in 1996, what real idea did he have in his head.
Q. Okay. And this is in a section where you said -where he's telling the Patent Office what his invention is not, right?
A. Right.
Q. Okay.
A. So, one way of understanding the idea back then is what Mr. Armstrong wrote to the Patent Office to describe it.
Q. Okay. And could you tell us what Mr. Armstrong told the Patent Office that his invention was not? A. Well, as he said, it's -- he says it doesn't -- the I ack of a hand-operable single member operable in 6 degrees of freedom has many di sadvantages. He's saying there's di sadvantages if you don't have a single input member. So, his invention -- he's separating his invention from those that do not have a single input member.
Q. Okay. So, he's criticizing Chang?
A. Right. He's criticizing Chang.
Q. Because he doesn't have a single input member?
A. Right.
Q. Okay.

This is on page 8 of the jury notebook, further tal king about Chang. Could you tell us what the rel evance of that is?
A. Well, Mr. Armstrong in this case comes out and says flat out that the Chang controller does not have a single input member that can be -- you know, such as a ball or one handle whi ch can be operated in 6 degrees of freedom
Q. And then --
A. Thus - -
Q. What does he say about -- because Mr. Chang's
earlier product didn't have that, what does he tell the Patent Of fice and the world in this application about that?
A. Well, he says that it's a bad i dea in the formal way of saying it is functionally and structurally deficient. He's criticizing Chang's design as the earlier design, and he's going to use that to hi ghl ight hi s i mprovement or what he's made that's newer or different and better.
Q. Okay. Now, have you had a chance to look at the Chang patent?
A. Yes, I have.
Q. Okay. Now, this patent - this patent number in Chang was referenced by Mr. Armstrong you just showed in his patent application, right?
A. Right.
Q. And it is talked about on page 8 of his patent application. And l'm going to ask you, if you could, just to tell us what this is showing.
A. Well, this is the front page from Mr. Chang's patent from 1994. It's the ' 919 patent, filed in 1992. Q. Let me stop you there. The 1996 appl ication was obvi ousl y filed when?
A. I n 1996.
Q. And this was filed actually in 1992?
A. '92, right.

By a different i nvent or, by Mr. Chang, right?
Ri ght, Mr. Chang.
And -- from Harvard, I guess, right?
Well, he lives i n Harvard, Massachusetts.
Okay.
A. Small town in suburban --

Okay. And this patent actually issued -- it was filed in '92, but you'll agree with me that it issued in 1994?
A. That's correct. The process of examining that patent took a while, but it was finally issued by the Patent Office on March 29th of 1994. Q. Okay. And that was two years, approxi mately, before Mr. Armstrong filed his 1996 thing he calls the "warehouse, " ri ght?
A. That's correct.
Q. Okay. Now, could you describe what this figure is showi ng?
A. Sure. This is Figure 1 of $M r$. Chang's patent and he's describing a device that, as we can see, looks ki nd of like a mouse. Here is the cord that goes to the computer (indicating). It's got a ball (indicating) on the top whi ch can be rot ated by your fingers; and that ball is used to i nput the roll, the pitch, and the yaw
for this device.
It's got three buttons on the front (indi cating) like a mouse does just to enter things on the screen.

And then it's got a little roller (indi cating) on the side. Thi s is kind of like a knob or a wheel that you rotate with your thumb. If you i magi ne your hand hol ding that, if you were right-handed, your thumb would be located right here (indi cating) and you could move that roller up and down. That's used to get up and down in this particular i nvention. In ot her words, if you want to enter a change vertically, you put your thumb on that roller and roll it up or roll it down. If you want to change your ori entation, you rotate the ball on the top if you want to tip yourself one way or another.
Q. Is there a third el ement described in Chang that toget her contributes to provi ding 6 degrees of freedom of control?
A. Yes. The third el ement is underneath; and, in fact, this is really a - based on the design of a mouse. So, the location, I mean, forward and backward and side to side is just like a computer mouse. You push this devi ce back and forth on the tabl et op like you use a mouse.

So, this design has three separate el ements that the user can mani pul ate with its hand to achi eve 6 degrees of freedom?
A. That's right. It uses three separate items.
Q. Okay. And, in fact, there is another figure here.

Could you tell me what this is disclosing?
A. Sure. There's - underneath is the ball
(indi cating). At this period in time, mice were not yet optical with the little red light we see today. They had a ball back in that period in time. So, he's showing that there is a mouse-type ball underneath that rolls on the surface; and then there is, of course, the trackball-type ball on top (indi cating) that you tip it with your fingers to move the angle.

And then there is this little roller on the side (indi cating) that 1 use my thumb to roll it up or down; I change my position.
Q. Okay. Now, the - a typical mouse -- I think you expl ai ned earlier -- sits on a desk; and you can move it in 2 degrees of freedom right?
A. Ri ght.
Q. Ki nd of like the checker that Mr. Cawl ey used in the openi ng, right?
A. Ri ght.
Q. A checkerboard, like a mouse you can move forward
and backwards and left and right.
A. Right .
Q. A checker or a mouse.
A. Right. A mouse moves on a flat surface forward and backward, I eft --
Q. But you just expl ai ned that this device, though, adds a ball on top to get some additional degrees of freedom right?
A. That's correct.
Q. And then it adds a ball on the side, as you just testified, so you can go up and down with your finger so you're moving physically in 6 degrees of freedom when you're operating it, right?
A. Well, it adds a roller on the side to be accurate. Q. Okay.
A. That's not a ball on the side. That's a little roller or cylinder that rolls.
Q. Okay. Now --
A. So, your thumb would be moving up and down to move that roller on the side; and your fingers would be causing the upper ball to rotate in whatever direction you wanted for rotation.
Q. Do any one of those el ements -- the first, second, or third in Chang -- provide a single handhel d el ement that gives you 6 degrees of freedom?
A. No.

Okay. So, that's different than the things that Mr. Armstrong had described in all of the figures that we looked at i $n$ the text?
A. Right.

Okay. Now, again, what did Mr. Armstrong say about this three-i nput 6-degree-of-freedom device to the Patent Of fice and to the world in his 1996 appl ication? A. Well, he just makes the point that it does not have a single i nput member that can be operated in 6 degrees of freedom and, therefore, it's deficient. It's an old design, and it's a bad design.
Q. So, when someone says something is functionally and structurally deficient and that it's bad, what are they telling you?
A. Well, they're really saying don't do it, that mine's better, that's a better way, this is the old way. I thi nk people writing patent applications tend to want to use kind of formal wording; so, you're saying it's deficient or it's lacking. It doesn't have what it needs on --
Q. So, is he saying anything about what his i nvention is not here, to somebody like you who is skilled in this art, in reading this application?
A. Well, precisely. He's saying, "I' m not clai ming to
have invented these ideas. I'm separating my ideas that I'mclaiming from the earlier ideas; and l'm not trying to claimthe ideas, for instance, that Mr. Chang i nvent ed. "
Q. Okay. So, now I want to ask you -- now you've looked at the words and you've looked at the figures and you've looked at the entire 1996 application, right?
A. That's correct.
Q. Or you have personally.
A. Yes, I have.
Q. We haven't had a chance to look at every single pi ece of it. But do you believe that you have now -- in your review did you come to a concl usion as to somebody skilled in the art, what they would understand Mr. Armstrong's idea was in that 1996 application -- or ideas, pl ural -- when he filed it in 1996?
A. Yes.
Q. And what is that?
A. Well, l think there's a coupl e of key things. One, that there is a single input member movable in 6 degrees of freedom and that it moves rel ative to the housing and that it's not a multiple input member device.
Q. Okay. So, that's the scope of the 1996 application of what his invention is.

And did you al so understand what -- di d he
clearly indicate what his invention was not?
A. Ri ght. He di scl ai med the ideas of Chang; that is, the ideas of having multiple input members. He says that what Chang has is deficient and it's not what he's doi $n g$.
Q. Okay. So, then - thank you.

Now -- so, you now have just described what you believe the 1996-- the scope of that application is of Mr. Armstrong's. Now there's something el se -another process that you undertook. Could you tell the jury what the next step in your anal ysis was?
A. Right. Well, first, we have to understand the scope of the invention. And l'll make it clear that it's the scope of the invention that's rel evant to the issues here. There may be other things that are not rel ated to us that are in that patent that are not something we're going to talk about at all.

But the next step, once we understand in our minds what the idea was that that invent or had, then we want to look at the actual claims in this case and we want to look at those claims that have been asserted and we want to look and see is there support back in that application, can we find information that shows us that Mr. Armstrong had the idea as described by the claim back in 1996.

Okay. And before we do that, I had noticed somet hing -- and I want to ask you about it -- in the specification of the 1996. So, I don't want to conf use you. We're goi ng to come and we're going to start the scope of 2002.

MR. PRESTA: But l'd just like Kam please, if she would just put up a part of the specification that we didn't show and I want to ask you if you would describe what it means to the jury. And this is on page -- because we're pulling it up live, I don't have the -- page 13 of the jury not ebook.

BY MR. PRESTA:
Q. And I would like to ask you to describe what this paragraph is getting at in the application before we move on because l want to see if it affects your opi ni ons.
A. Sure.

THE COURT: And just for the record, you're tal king about the original application, right?

MR. PRESTA: Yes, your Honor.
BY MR. PRESTA:
Q. We went back to the 1996 application. We're getting ready to start an analysis of the 2002 claims , but l'm going back to the 1996 application. I just -there's one more thing l forgot to have you look at.
A. Sure. Let me take a second to dig into this text a little bit and explain it.

Again, people that are writing patent applications, you want to make a clear description. So, in this section Mr. Armstrong is writing about how he's going to use these terms. He's saying, "I'm going to define the words or the terms 'joystick-type controller' and 'trackball-type controller.'" And he's saying the term"joystick-type controller" -- they both represent two ki nds of hand-operated input devices whi ch both have a hand-operable input member which is operated rel ative to a reference member.

And the difference in the two controllers is as follows: For a joystick-type controller, the handle can be moved or operated in up to 6 degrees of freedom but, he's saying -- this is important -- the freedom of the input menber is only to go with a limited range.

So, what he's saying is that I can't necessarily rotate that joystick all the way around in pitch or yaw because the joystick handle hits the surface, as opposed to a trackball. The input member of a trackball-type device, since it's spherical, has an unl imited amount of travel in rotation.

So, he's really expl ai ning that if you make a trackball and you want to input the angle of, you know,
roll or pitch, you can roll that thing as much as you want. But if you have a joystick, you have a limitation in the amount you can get $i n$ the angul ar directions because you cannot tip the handle that far without it running into mechanically the surface.
Q. Okay. And the very last sentence there, it covers

Figures 1 through 10 and 13 through 36 , whi ch - $t$ he figures that you put up, that covers all the figures that you put up, right?
A. Right.
Q. Okay. And what is that last sentence telling us?
A. Well, it says a 6-degree-of-freedom trackball embodi ment is in the first set of pictures -- we saw those -- and the 6-degree-of-freedom joystick-type embodi ments or examples are illustrated in the second set of pictures, 13 to 36; and those are the ones we've I ooked at.
Q. Okay. And you took that statement i nto account when you formulated your opi ni on about the scope of the 1996 appl ication?
A. Yes, I did.
Q. Okay. And, again, your opi ni on is as you stated it to the jury?
A. Yes.
Q. Okay.

MR. PRESTA: Now if l could go back to the -BY MR. PRESTA:
Q. Now l'd like to move away fromthe 1996 application and move to a new topic. Okay? And the topic that l'd like to ask you questions about has to do now with the scope of the clai ms that Mr. Armstrong filed in 2002. Do you understand that?
A. Yes.

Okay. And you undertook a study of the scope of those cl ai ms of 2002?
A. Yes, I did.

Okay. And why are we doing this agai $n$ ? Just to make sure the jury is following why you and I are going through this process.
A. Okay. Well, the claims we're going to talk about here are the claims that are at issue in this case. We're going to go through the claims that have been asserted, the particular clai ms that Ni ntendo has been accused of infringing; and we're going to ask the question for each of those cl aims and the invention it describes, can we find support for that back in the original application.

If we go back for each claim and look, can we find the el ements of that claim the full description of them of what that means -- can we find support for that
back in 1996?
Okay. So --
A. So, we're going to take a claim at a time and now go back -- now that we're a little bit familiar with the specification -- then go back and see if we can find support for it.
Q. Okay. So, this is the second step in the process, right?
A. Right, second step.
Q. Okay. Now, we tal $k$ about independent cl ai ms 14, 16, and 19. Do you understand why we onl y need to look at those three instead of al so claims 22 and 23 that are dependent?
A. Yes. The reason is a dependent claimincludes the independent claimit came from To save space in writing out these things, l guess, it is kind of a tradition or part of the law that you can write one cl ai m and then you can say another cl ai m which adds something to the first one. So, it would be claim 19 but something el se.

So, if there is no support for the independent claim 19 in the original application, there can't be support for the other parts which include 19 as part of their requirements.
Q. So, we're lucky, then, that that simplified our
process a little bit, right?
A. Right. For a written description analysis, it si mplifies the work we have to do a little bit. Q. Right, because we don't have to look at all five of the asserted claims you can just look at these three. A. Right. We don't have to look at the independent cl ai ms.
Q. Okay. Now, l'm going to ask you first to look at clai m 19. Now, obvi ousl y claim 19 has a lot of words in it. Very difficult to just sit here and look at it and understand exactly what it means.

Have you undertaken a process of trying to
find a way to hel p the jury understand what this claim-- what this -- oh, I see l have a -- Iet's clarify something first. I have a very bad title on this, in fact. This could be extremely confusing because the title has a typographical error.
A. Let's fix that title.
Q. Let's fix that so there is no confusion.

THE COURT: You read my min.
MR. PRESTA: Try to.
BY MR. PRESTA:
Q. Okay. Now, this is the claimthat was issued from the patent application that was filed in the year 2000 that was actually added by Mr. Armstrong in 2002. You
understand that, right?
A. That's correct.

Okay. So, this is a claim-- and this is, in fact, cl ai m 19, whi ch is the onl y clai min the case that the W i and the W i Nunchuk are accused of infringing. Do you understand that?
A. Yes, I do.
Q. And, in fact, the majority of the damages in this case that Mr . Armstrong is clai ming is based on this cl ai m right?
A. Well, l heard testimony to that effect, yes.
Q. I'm sorry. You may not actually be aware of that, but I'm representing to you that that's the case.

Now - - and, agai $n$, this is claim 19. It's in the jury notebook under the " Cl ai ms" section. And it's tal king about being in the ' 700 patent because that's the patent number, the last $t$ hree numbers, that contain the i ssued clai ms, right?
A. That's correct.
Q. Okay. So, now we're going to undertake the process of trying to understand what this claimmeans, right?
A. Yes.
Q. Okay.
A. That's the first step. We've got to get an understanding of what $t$ he $c l a i m m e a n s$ and what it
describes and its scope or -- we used that in the pi cture you saw, the idea of a fence. We need to understand where is that fence, what does that fence define.
Q. Now, the fence you're tal king about was in the patent video that was played at the beginning of the trial. The gentleman on there explained that a claim was like a fence and it defines the scope of your rights under the patent, right?
A. Exactly.
Q. So, we're going to undertake a process now to determine, in your opi ni on, what the scope of claim 19 is. And have you done somet hing to hel p make this process a little bit easier?
A. Yes, I have.
Q. Okay. And I'd ask if you would explain for the jury what that process is.
A. Okay. Well, there's a couple steps but just as a little bit of background, we have to look for what's in the actual claim but it's going to be really cumbersome if we have to drag that whole claimalong with us all the time. So, l have made some memory aids to hel p us do that. And, al so, we're goi ng to look over what a couple of important terms are defined by the court. So, Iet's start off with that.

The first part of this claimsays: A hand-oper at ed controller.
Q. Now, l just put up this definition. Could you tell the jury what that is? And, in fact, it's found in the "Definitions" section of the jury not ebook.
A. This is the definition of the word "controller" that the court has ruled is the appropriate definition to use when we do this anal ysis. Q. Okay. And you use this anal ysis when understanding what the scope of the claimis, right?
A. Yes. I've used this anal ysis and this is the anal ysis that -- I mean, this is the definition of the word "controller" that we need to use here today. Q. Okay.
A. And that's been used in my report.
Q. Could you briefly describe the definition?
A. Briefly, it says: A device held in the user's hand -- and then it says -- that allows the hand or finger inputs to be converted into el ectrical signals so you can mani pulate i mages -- and they're saying graphics here -- on a display device.

And the final sentence just says that you can see those images.
Q. Okay.
A. (Reading) Capable of being perceived as you can see

So, then, i n your opi ni on, what does this next sli de represent?
A. Well, what l'm doing here is l'm making us a memory aid. We have to compare the actual claimterm But what l'm going to make for us is a picture we'll use in our minds to remember that; that is, that it's a controller. What I'm showing here just is an idea of a controller that you operate with your hand, just that idea. And that should remind us of that phrase "a hand- oper at ed controller."
Q. Okay. Now I put up the next part of claim 19 and ask you what this is representing.
A. This section describes -- "comprising" is a word that means "incl uding" in patent terminol ogy -- some structure, somet hing that allows the hand i nputs rotating a platform on $t$ wo axes to be turned into some si gnal or output by four uni di rectional sensors. Q. Okay. Have you given a-- what is this --is this desi gned to represent that claimlanguage?
A. I've drawn just something schematically to i ndicate we've got four sensors and we've got somet hing that makes $t$ hem work.
Q. Okay.
A. It doesn't have to be -- we're not saying that it's
a particular thing, a particular way or design, but just to remember that idea -
Q. Okay.
-- that we're going to be looking for something that activates four sensors on two perpendicular axes. Q. Let me ask you about the next part of claim 19 . A. The next phrase adds a "controller including a tactile feedback means" -- "the controller including a tactile feedback means." Here ${ }^{\prime}$ 'mjust putting a picture of a little vi bration motor to remind us that this claim has a section of text which says it includes "a tactile feedback means" in it.
Q. Okay. And now --
A. Then we move forward.
Q. I'mturning to the next part of claim 19. And just so the jury understands, you're starting from the begi nning of 19 and flowing right down the claim but we' ve cut out the pieces of text that define individual el ements, right?
A. Right. We're taking each indi vi dual el ement of text fromthe claim and just making oursel ves a little reminder of what it is.
Q. Okay.
A. We're still comparing it against the actual text from that claim But just to make it easier to talk
about, we are making us a little rem nder of what these things are.
Q. Okay. And what is the next one?
A. The second el ement here -- this says: A second el ement that you can move on two perpendicular axes and that it activates two sensors. So, l've made a very si mple idea of some element -- we saw an example of a joystick handle in the infringement case -- and that it moves on these two axes. It doesn't say exactly how it moves or what's the method inside or anything else, just that we have something whi ch meets that claimlanguage Iimitation. We need that reminder to carry with us.
Q. And is this something that you could have touched, the platform to activate those sensors?
A. Yes.
Q. And this is representing something like a joystick-type thing that you can touch and move in this di rection (indicating) and in this direction?
A. Right.
Q. That's what you're trying to represent?
A. Yes, somet hing you can touch to move in those directions.
Q. Okay. And that these red lines (indi cating) would represent the two bi-directional proportional sensors? A. Right. The indication here is that there's two
sensors -- we're showing that it's not a straight line. The reason we put the curved lines in here is this claim limitation by itself does not say whether that's moving Ii nearly or tipping angularly. So, we wanted to show, in fact, it really could be either one but they have to be perpendicular axes and there has to be some way to make them operate.
Q. Okay. And then the next part had a third el ement, whi ch the Ianguage looks basically identical to the second el ement except for the word "third."
A. Right. The I anguage is identical except for the "third"; so, we just made a second copy of that picture to remind us there's two of them
Q. Okay. And, now, what is the --
A. The last two sections in the claimlanguage at the bottom says a "plurality." A "plurality" is a word that is, again, used in patent cl aims that means more than one. So, l've only shown two buttons here; but there could be more. It's just that this particular requi rement is that we have at least $t$ wo.

And then each button has a sensor, a button sensor. Well, l've just made a little blob underneath to remind us of that. And that sensor has to be at Ieast capable of saying l'mon or off like a plain and ordinary switch. It could do more, but at least it
has on/ off.
Q. And is that the last --
A. Again, l just put a little note there to remind us.

And is that the last part of claim $19 ?$
A. That's the end of the claimlanguage.
Q. Okay. So, then, in your opi ni on, does this
accurately represent an illustration that, in your view, would be a hel pf ul mental reminder of what the scope of cl ai m 19 in that 2002 application is?
A. Yes, it does. It's a remi nder of what's in that - those el ements, and we've got a picture for each el ement we can keep in mi as we go t hrough.
Q. Could you just gi ve us just a quick overview, then, of what we're looking at?
A. Well, we've got a hand-oper at ed controller, the gray thing.

We' ve got the four uni directional sensors with a platformthat can activate them on two axes.

We' ve got an i nput el ement that's movable on these two perpendicul ar axes with sensors that activate them We've got a second copy of that for the third el ement -- I'm sorry. I'm going in order on the pi cture. We have the el ement for vi bration, which in the actual claim comes right after the first one. And then at the very bottom we've got the buttons and the
sensors.

And these particular buttons that claim 19 says had to be on/ of $f$, right?
A. They had to at least be on/ of f.
Q. Understood.
A. They could be more, but they have to at least be an on- and- of $f$ button.
Q. So, you think that's a fair representation of the scope of claim 19 as you understand it and as it's being asserted by Anascape agai nst Ni ntendo?
A. Yes.
Q. Okay. Now, the next step -- I' m going to ask you to do the next thing, which is really the most important thing that you've been buil ding up to, is -- we want to take this 2002 scope of clai m 19 that we've now represented as a visual aid and l want you to -- have you undertaken a study of going back to the 1996 application and done a comparison of the scope of the cl ai ms that were filed by Mr. Armstrong in 2002 with the application that was in 1996 to see if that invention that's clai med in 1990 - in 2002 can be - is described back in 1996 as Mr. Armstrong's idea? Have you undertaken a study to do that?
A. Yes, I have.
Q. And do you have a concl usi on that you could tell
the jury about that?
A. Yes. My conclusion is it is not supported in the 1996 appl ication.

Okay. Now, just briefly before l start, could you just give the jury just a hi gh-l evel reason why, in your opi ni on, that it's not?
A. Sure. The simplest reason is there is no di sclosure, no evidence that $I$ see that Mr. Armstrong had the i dea of three i nput el ements, three separate i nput el ements, that you could touch with your hand back in 1996.
Q. And it's these three i nput el ements up here (indi cating) that would total up to 6 degrees of freedom right?
A. Right.
Q. Instead of having one single handle?
A. Right. That's correct.
Q. Okay. Now, let's take a look back; and you can recall -- could you tell the jury what -- why you're doing this comparison?
A. Sure. This is the first embodiment we saw with the Trackball 12 (indicating) where we have a single ball. It moves back and forth in $X$ and $Y$ and moves up and down. There's only a single i nput el ement here. Even if we look at the collet around it, the collet moves
with it and does not provide -- even if we consider that separate, it does not give us a second element which can input more -- anything different from the first one in terms of its $X$ and $Y$ and so on.
Q. Okay. And even if that was a second one, would that hel p us with respect to the scope of claim 19? A. No, because the scope of clai m 19, of course, requires three input elements.
Q. Okay. Wbuld that toget her provide 6 degrees of freedom?
A. Right.
Q. Okay.
A. The three el ements toget her have to provide 6 degrees of freedom
Q. Okay. Now, in your drawing up here, no one of those el ements al one provides 6 degrees of freedom does it?
A. No.
Q. Okay. But the Ball 12, of course, as we saw Mr. Armstrong describe repeatedly that his ball did do of 6 degrees of freedom correct?
A. That's correct.
Q. Okay. Now, take a look at the next figure back in 1996, this handle one. Does that describe the clai m that Mr. Armstrong wrote in 2002, back in 1996?
A. No. Again, because we've only got one input member, one thing we're touching with our hand that we can move.

Okay. And how about this other figure, Figure 20, the other embodi ment?
A. Again, there's only -- I only see one input member; whereas, the clai m scope includes three.
Q. Okay. But -- wait a minute. Isn't there -- what about these little buttons (indicating)? Can't they be these other two things?
A. No. They do meet this claimlimitation of the two buttons right here (indicating). We have two on/ off buttons. So, in fact, we see the two on/ off buttons and this one handle; but we don't have the other handles we need.
Q. Okay. Because these buttons right here (indicating), they can't be moved in two separate axes like the claim requi red, can they?
A. No, and they are not connected to bi-directional proportional sensors or anything of the sort.
Q. Okay. So, the buttons up there (indicating) are really -- you could say they correspond to these buttons, but they don't correspond to any of the input members that provi de 6-degree- of -freedom control.
A. That's right.
Q. Okay. Now, how about this ot her one, qui ckly, in 1996? Di d that one hel p -- did that one provide the three-i nput 6-degree-of-freedom or not?
A. No, it does not. It doesn't provide three separate input el ements. It only has a single handle, a single input el ement.
Q. Okay. And, again, when you compare it back to the text -- this is just a brief summary of the text. Does any of the text describe this invention -- does any of the text from 1996, in Mr. Armstrong's 1996 application, describe the claimthat he filed in 2002?
A. No. I would use the term"support" maybe.
Q. Okay. Thank you.
A. In that in every instance he says there is a single i nput member, but here this clai m scope includes three. And, so, there's nothing that indicates that he had the idea of having three input members back here in '96 where every time he talks about it he says there is a single input member.
Q. Okay. And what about Chang? Does Chang hel p you understand what -- what he said about Chang -- whether, in fact, this 2002 claim 19 was part of his idea of what he considered to be the new thing he was filing his patent on back in 1996?
A. Well, again let's look at Chang. If you recall,

Chang has three separate elements. And interestingly, there are three elements here. They don't exactly meet the requi rements; but there's three el ements at least, three separate el ements. And he says that the Chang controller doesn't have a single input menber; so, it's deficient. It's not good, and it's a problem because it lacks a hand-operable single input member. So, in fact, when he says what his invention is not, he points to three separate input members, whi ch is exactly what we have in the claim scope that's asserted here.
Q. So, these statements about Chang that Mr. Armstrong is saying in 1996 are bad and don't do it and it's not my invention, do those statements al so apply to this claimthat he filed in 2002?
A. Ri ght. The same logic that he says that there's three separate el ements back in 1996 and that's a bad thing, that's not my idea, are present now in claim 19. Q. Okay. Now, based on that, do you have an opi ni on on whether, as somebody skilled in this area of technol ogy as you are, in reading the 1996 application as a whole, that it supports this claim 19 that he later filed in 2002?
A. No. There's no support in the 1996 application for the full scope of claim 19 or claim 19 as it's been asserted in this case.

Okay. Is there any support for even having three el ements that together combine to provide 6 degrees of freedom of control in his 1996 application?
A. No, not with independent handles and el ements. Q. But they are asserting that claim 19 is actually that broad -- Anascape is -- aren't they? A. That's correct.
Q. In fact, in order to prove infringement against Ni ntendo, they need to say it's that broad, don't they? A. That's correct.
Q. Now, just to further emphasize, for example, this embodi ment of Figure 20, I'd like to ask you specifically if we can find support in this embodiment for the scope of cl ai m 19. And l'd ask you what this illustration is showing that you hel ped create.
A. Okay. Well, the first thing is that within this di sclosure -- not in this particular drawing but in one of the drawings associated with it -- it is shown that, in fact, this handle (indicating) rocks back and forth, that it can tip forward and backward and side to side and it has the uni directional sensors and there is a description of that type of four uni directional sensors that can be rotated with a platform that rotates on them and activates them And, so, that el ement is present inside the handle.
Q. So, that particular piece of cl aim 19 is found in the Figure 20. Is that what you're telling me?
A. That's correct.

Okay. And, also, what about -- is there a motor as Mr. Armstrong described, that you can have a vi bration feat ure in his single handle?
A. Yes. I think we saw another picture agai $n$ showing one of the variations of this design where the cap -- it was kind of a rounded top, and inside there was roomfor a motor for vibration.
Q. So, Mr. Armstrong --
A. So, that el ement al so has been disclosed in a way that Mr. Armstrong clearly had the idea of putting that motor in the handle.
Q. So, again, the motor is actually somet hing he did describe in 1996, right?
A. That's correct.
Q. Okay. Now, he also -- his 1996 al so supports these on/ off buttons, doesn't it?
A. That's correct. As we've tal ked about, there's two little buttons shown here on the edge that you could put your fingers over this hockey puck and squeeze on and those buttons -- since the claim asks for more than one button and two buttons certainly is more than one, those two buttons there meet that claimlimitation; so, that
part of it is present.
Q. So, so far, so good.
A. There's support for those three el ements of the cl ai m
Q. Okay. Now, where's the support in this figure for this ot her input member that you could control in two axes and a third i nput member that you could control in two axes? Is that present in Figure 20?
A. No. Because there is no other element that you can hol d onto to move to do that. There is just no other el ement.
Q. In fact, Mr. Armstrong said that that would be a bad i dea to do that in 1996 when he criticized Chang, di $d n$ 't he?
A. That's correct. He said it was a bad idea. Q. So, there is no - - so, what we're looking for is scope of the full -- of the i nvention of claim 19, the entire thing, right? That's the test.
A. Right. It all has to be there. We need support to show that Mr . Armstrong had the idea that he's now asserting is the scope of $t h i s$ claimback in 1996. Q. Okay. And what is your conclusion with respect to at least this figure about whether there's support? A. Well, the test for support is the entire - my understanding is the entire application. And there is
no support.
Okay. Agai $n-$ - this is that figure from 1996 that's put back together instead of being exploded and you -- l just ask you if you would agree with me again that there is support in this figure for the four uni di rectional sensors in the platform right?
A. That's correct. You actually can see the platform and you can see the sensors in there.
Q. You can al so see the motor.
A. Vi bration motor. Yep. There's the vi bration motor. Goes there (i ndicating).
Q. Mr. Armstrong did have the idea for a platform and the motor back then, right?
A. That's correct.
Q. But - and he al so -- we saw before that these buttons could be somewhere on there, right?
A. That's right.
Q. But agai n, does this figure show these other two i nput members that he now claims in 1992 [sic], in this 1996 dr awi ng?
A. No. There are no ot her i nput members. And you can see here is the top of the housing; so, there is nothing el se that you can touch when it's put toget her.
Q. Okay. In fact, having multiple i nput members, as this cl ai m requi res, would -- would it conflict with his

1996 application?
A. Well, it certainly does. It's a contradiction of what he's saying is the benefit or the val ue or even the objective of his invention.
Q. Okay. So, now we're back to claim 19; and I just want to be very careful here, Mr. Dezmel yk, because we may -- you made this illustration of claim 19 but the real test, of course, is -- as l believe you know and I want you to understand is the test -- is that it's really claim 19, the words.

And l'm going to ask you now: Do you have an opi ni on as to whether claim 19 as described, the full scope of that claim that claimthat's being asserted agai nst Ni ntendo in this case, of whether that claimis supported back in the 1996 application?
A. $\quad \mathrm{Cl}$ aim 19 is not supported back in the 1996 application.
Q. Okay.

THE COURT: All right. Counsel, we're going to go ahead and take a break.

Ladies and gentlemen, l'Il ask you to be back at 11: 30 .
(The jury exits the courtroom 11:12 a.m)
THE COURT: We went through several rulings earlier this morning. Let me be very clear on that

Chi pworks one because no one fromplaintiffs spoke. The precise ruling there is l had not -- I don't believe । have yet heard a predicate that would allow that use of those documents. So, to just bring themin without the proper predicate at this point is what l'msaying.

We're in recess now until half past.
MR. PRESTA: Thank you.
(Recess, 11:13 a.m to 11:29 a.m)
(Open court, all parties present, jury present.)

THE COURT: Counsel ?
MR. PRESTA: Thank you, your Honor.
BY MR. PRESTA:
Q. Mr. Dezmelyk, before the break, you had given us an opi ni on on whether, after studying the 1996 application and the scope of claim 19 as filed in 2002-- you had gi ven us an opi ni on on whet her you thi nk that 2002 cl ai m was supported back in the 1996 application. Again, could you just repeat your opi ni on?
A. Yes. My opinion is that the limitations of claim 19 are not supported by the 1996 application.
Q. Okay. And what's your main reason for that?
A. Well, the primary reason is that there was a lack of three input elements. The specification only indi cates that Mr. Armstrong had the idea of a single
i nput el ement in mind, not three separate input
el ements.
Q. And you recall that Mr. Armstrong actually said not to use three input members in the 1996 application, right?
A. That's right.

Okay. Now, could you just tell the jury again what this timeline is representing?
A. Sure. This timeline shows us two things: One, the initial application back in 1996 and then the claims that we're anal yzing whi ch were submitted on July 15 th of 2002. And in order for those -- we have to find support for those claims. We have to be able to show -for those clai ms to be entitled to that date of July 5th, 1996, we have to be able to show that that specification describes the invention in such a way that we know that the inventor had it in mind back then. Q. And you have given us your opi ni on on that. And does that slide accuratel y represent your opi ni on?
A. Yes, it does.
Q. Okay. That, in fact, that claim 19, of course --
A. For claim 19.
Q. And we' ve only done claim 19. As the court will instruct the jury and you understand, that this is a separate test for every one of the asserted claims.
A. That's correct.

Just because claim 19 isn't supported doesn't mean the other asserted claims like 14 and 16 are aut omatically not supported, right?
A. Right. But to be clear, we only have to look here at the independent clai ms because claim 19 has dependent cl ai ms. And if the i ndependent claim 19 is not supported, then nei ther are the dependent claims that depend fromit.
Q. Okay. Now - now that you've spoken about the dependent claims, let's just take a quick look at those. The dependent cl ai ms in this case that are asserted are 22 and 23. And 22 relies on clai m 19 that you just said wasn't supported and claim 23 relies on claim 22 that, i $n$ turn, goes back to claim 19. So, does that - do you, then, have an opi ni on on whet her either of those t wo claims are supported by the 1996 appl ication?
A. Neither claim 22 nor clai m 23 are supported by the application because clai m 19, whi ch they depend from and require, is not supported.
Q. Okay. Now, agai $n$, cl ai mb 22 and 23 , we try to put jury notebook references whenever the jury might think it's hel pful to look at it.

Now, we have to do this test agai n,
unfortunately, for claim 16 and cl ai m 14. But have you
found a - I want to ask you again: Did you find a way to go about this process with -- to hel p speed it al ong a little bit but still be accurate?
A. Yes. I thi nk we can use the same techni que we used bef ore of creating for oursel ves a little memory aid that gives us a mental aid to remembering each of those I imitations in the claim
Q. Okay. And have you done that here?
A. Yes, I have.
Q. Okay. Now, there are a lot of similarities bet ween cl ai m 16 and clai m 19, right?
A. Yes.
Q. So, is it your view that it's not really necessary to go detail by detail to understand the scope of cl ai m 16 now that we' ve al ready done it for clai m 19 ? Is that your understanding?
A. Ri ght. I understand that, and I thi nk that we probably can focus on the differences and then maybe expl ai $n$ it that way as a good way of understanding what this claimtalks about.
Q. Okay.
A. I could just point out the ones that are the same, al so, if you like.
Q. Okay. It is i mportant that the jury understands the differences between clai m 19 and clai m 16 so that
they can have an understanding of the full scope of claim 16. So, if you could tell the j ury what that is, I would appreciate it.
A. Sure. In claim 16 we have the first el ement like we had before. The first thing we run into that's different is a first sheet. And that l've symbolized with this green -- suggesting kind of the idea of a sheet.

And if we look into the claims, they will be connected. So, for instance, it says for the first el ement -- this is our uni directional sensor. It says that those sensors at least in part connected to a first sheet.

So, agai $n$, we're not saying exactly how it's done or trying to make it seemlike that's all it possibly could be; but that's just a reminder that those -- that first el ement's connected to that -- at Ieast in part to the first sheet.
Q. Okay. I al so see there is a sheet over here (indicating). Is that another difference in this cl ai m - -
A. That's right.
Q. -- comparing it to 19?
A. We' ve got another sheet over here. I've shown it not on the same level, like a step down from the first
sheet. And that's because when we come down in the middle of the claim it says a second sheet and says said first sheet -- in other words, the first sheet over here -- I ocated on a first pl ane and the second sheet l ocated on a second pl ane.

So, what that means is that they're not level like -- you know, like they were level like a level surface of a table. They're two different planes. Now, I' m showing them just like a step; but they could be in any orientation to each other. Each of these sheets -there's two separate sheets. They are not parallel to each ot her. They're not lying on a tabletop toget her in a sense, you know, flat and exactly even; but they could be different in other ways than the step l'm showing. I'mjust showing it that way so we can remember that we've got the two sheets.
Q. Okay. Now, I al so see that this now says "proportional." It used to say on and off. Why is that?
A. Well, if we look further down this claim 16, there's two sections in here that talk about an i ndependent first button sensor and independent second button sensor.

First, this is different from before. It doesn't say a "plurality." It says there's actually two
buttons. So, l've just shown two buttons here. And al so it describes in the section about the button -- it says an independent first button sensor. And the sensor can be, in essence, proportional, capable of transforming depression -- that is, pushing -- into a proportional signal.

So, these sensors underneath the buttons are not just on/ off switches. They actually are proportional. I think you heard the example of a gas pedal being something you depress that is proportional. In that case, of course, you depress it with your foot. But this is a button that the harder you press on it, you know, it changes. Maybe it does more; maybe it does less. But it is related to the depression or the force activating the button.
Q. So, let me ask you, then: Wbuld it be fair to say that the primary changes between cl ai m 16 and cl ai m 19 are really -- the only differences are that the buttons are proportional rather $t$ han on/ of $f$.
A. That's correct.
Q. And there's now two sheets hooked up the way these two sheets are, with each of the sheets being on a different pl ane because that's what the claimsays. Is that fair?
A. Right. And we have the first and second el ement on
the first sheet; the third el ement is attached to the second sheet.
Q. Okay. So, then, is your opi ni on that it is an accurate representation of this claimlanguage that this ill ustration, just like we did with claim 19, is an accurate illustration of claim 16?
A. Yes.
Q. And it would be fair to use this as a mental image of claim 16 when we go back to compare with the 1996 application?
A. Yes. It's a good way to remember what the claim terms mean; although, ultimately, we have to come back and look at the exact clai mording.
Q. Okay.
A. But this is a good way to remember what that claim wording is as we go through it.
Q. Okay. Now, did you go back with this claimlike you did with claim 19-- did you go back with this claim 16 and compare it to the 1996 patent application that Mr. Armstrong filed to see if the scope of that claim 16 that he filed in 2002 is supported or described back in the 1996 application?
A. Yes, I did that anal ysis.
Q. And do you have an opi ni on about that that you could share with the jury?

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A. Yes, I do. There is not support in the written description back in the 1996 application for this scope and this claimas it's illustrated and as it's written in the clai m
Q. Now, are the reasons similar to claim 19 as to why there's no support?
A. Yes.
Q. And could you tell the jury what the primary reason is that there is no support?
A. Well, the primary reason is is that there are -- in this claim claim 16, there are three independent input el ements; and we only have a single el ement disclosed in the specification. There's no evidence to suggest that Mr. Armstrong had this idea, the idea of three separate el ements, back in 1996.
Q. And those three separate el ements being three el ements that combined provides 6 degrees of freedom of control, right?
A. Right .
Q. Okay. Now, in fact, isn't that the opposite of what he said his invention was in 1996?
A. Right.
Q. And why is that agai $n$ ?
A. Well, because he said it was a single element that you could move in 6 degrees of freedom but here, of
course, we've got three that can be moved independently.
And these three are -- could be equated to the Chang -- or could these three be compared to the Chang reference that had three?
A. Right. This is very similar to Chang where there's three separate input elements, each of which gi ves part of that total 6 degrees of freedom Q. And was Mr. Armstrong saying that having three was not his invention in the 1996 application?
A. Yes. He was saying three input members was deficient, and a single input member was his idea. Q. Okay. So, then, is it fair to say your opinion is that the 1996 application does not support claim 16? A. It is my opinion that claim 16 is not supported in the 1996 application.
Q. Okay. Now, you actually did the anal ysis of using the actual claimlanguage, not just this visual aid, right?
A. Yes, of course.
Q. But you still stand by the fact that in your opi ni on the visual aid is an accurate and useful tool? A. Yes.
Q. Now, that's claim 16; and, agai n, that claim 16 is in the jury notebook in the "Cl ai ms" section, under cl ai m 16.

Now, there's one other claim claim 14 in
this case, that -- as you know, we have to do this test
for every claim every --
A. That's correct.
Q. -- independent cl ai m right? You've said that.

Now, did you do this same sort of analysis with claim 14?
A. Yes, I did.

Okay. And l see there is a visual of cl ai m 14, an illustration on the right. Can you tell the jury what the differences are between claim 14 and claim 19 and hel p the jury understand the scope of this claimas best you can?
A. Sure. Let me take a moment just to go through this cl ai m

It starts with the first el ement, which we have up here, movable on two axes. It does not have the vi bration motor; so, there's no requirement in this clai med invention for a vi bration motor. It's just not present.

It does have the independent first and second button with proportional signal. So, we' ve continued to have the two buttons, each of which has a proportional sensor associated with it.

And in this case the sheet -- and it's way
down at the bottom if l can point at that for the jury (indi cating) - connected to at least ei ght of the sensors. Now, l've shown the sheet here (indicating); but the only test is that the sheet is connected to at Ieast ei ght of them So -- but this is a reminder that we have that sheet in place.

And then when we get into the sensor parts here, this actual claim goes through a second, a third, a fourth, and a first bi-directional proportional sensor; and, in fact, it does not require them to be arranged in this particular way of being on two axes. But the scope of the claim that we've seen -- that's a broader clai m yeah, in the wording. But the scope that we've seen it's been alleged to infringe is this configuration. So, whatever scope it is, it has to include the configuration we see here of the two input devi ces -- or two input handles that are movable on these two -- at least two axes.
Q. And you see in claim 14 where you have to be -where the claimlanguage tal ks about that you input axes of control to a game?
A. Right.
Q. And that's what you would use some of these --
A. To do that purpose.
Q. $\quad-\quad$ el ements to do?
A. Right.

Okay. Now - so, then, is your opi ni on that that's an accurate ill ustration of clai m 14?
A. Yes, it is.
Q. Di d you then do the same analysis of going back to the 1996 application to see if the scope of claim 14, as Mr. Armstrong wrote in 2002, was, in fact, supported by the 1996 appl i cation?
A. Yes, I did.
Q. And do you have an opi ni on on that?
A. Yes. It's not supported.
Q. Okay. And could you just briefly tell us again why?
A. Well, agai $n$--
Q. What's the easi est way?
A. Again, this claim-it's full claimscope and the scope that's being asserted in this case has three i nput devices, three handles, three handles -- el ements, l should say, that you can mani pul ate. And as you mani pul ate them that is what's the scope of the claim But that's not described anywhere in the 1996 application. It was only the case of a single input el ement that you mani pulate with your hand.
Q. Okay. So, your opi ni on, then, as you just stated, was that claim 14 was not supported back in 1996, right?
A. That's correct.

Okay. Now, just to summarize, then, could you tell the jury what this slide is representing? A. Well, this is just a summary of the steps we've gone through here for each of the different claims.

And because we did it for claim14, right?
A. Right. Cl aim 14 is not supported in the original 1996 application.
Q. And, again, it has those three i nput menbers, right?
A. Right.
Q. Like Chang that Mr. Armstrong said was a bad idea in 1996, right?
A. That's correct.
Q. And then we did it al so for clai m 16, right?
A. Yes.
Q. And the scope of claim 16 was a little different than cl ai m 14. You expl ai ned that, right?
A. Ri ght.
Q. But what common thing it had still was these three i nput members, didn't it?
A. That's correct.
Q. And those same three i nput members that

Mr. Armstrong said in 1996 was a bad idea, right?
A. That's correct.
Q. And was that consistent with your opi ni on?
A. Yes. My opi ni on is it is not supported in the 1996 application.
Q. Okay. And then we move on to claim 19. And you did that same anal ysis, right?
A. Yes.

And, in fact, because - your opi ni on is that claim 19 is not supported. You stated that?
A. That's correct.
Q. And, agai $n$, your primary reason is what?
A. That there are three el ements -- the clai m scope covers three separate i nput el ements, but there is only a di sclosure of an i nvention or an idea which contai ns a si ngle i nput el ement.
Q. Now, you're tal king about three input el ements and tal king about a single input el ement. But is it true that it's three input elements that achi eve 6 degrees of freedom of control versus a single input element that does 6 degrees of freedom by itself?
A. That's correct.

Mr. Armstrong's i nvention, as he descri bed it, the ideas in the various embodi ments he showed of different aspects of that idea - i $n$ ot her words, his i dea -- were all a single i nput member you hel d and could move in 6 degrees of freedom There's nothing in
that application that shows to me, as practitioner, that he had the idea in his head of multiple joysticks or input el ements or handles that could be together operated to get a 6-degree- of-freedom out put.
Q. In fact, didn't he make it clear in 1996 that that was a bad idea?
A. Right. That's Chang's idea.
Q. Ri ght. And that that wasn't his invention?
A. Right.
Q. Now, I see that claim 22 is just filled in with "not supported." I just want to make sure. Could you just explain to the jury why you can fill those in without creating one of these illustrations?
A. Yes. Because, as l mentioned before, for claim 22 and claim 23, they depend on or require all of the Iimtations of claim 19. So, as soon as claim 19 is not supported, it's not possible that 22 or 23 could be supported because they need the support from 19.
Q. Okay. So, then, is it your opini on that none of the claims that were filed by Mr. Armstrong in 2002 that are being asserted agai nst Ni ntendo in this case can be -- can date back to the 1996 application?
A. That's correct. It's my opini on that there is no support in the 1996 application for the claims that we see that are asserted agai nst Nintendo.
Q. Is there any question in your mind about that opi ni on?
A. None whatsoever.
Q. And that statement is consistent with your opi ni on, then?
A. Yes, it is.
Q. Now, could you expl ai $n$ what this timel ine, then, is representing?
A. Well, this timel ine again shows us that this application, in 1996, does not show that Mr. Armstrong had the ideas in his claims in his possession. So, therefore, he is not entitled to that date. He's only entitled to a date where there is support for that -for those cl ai ms.
Q. Now, if Mr. Armstrong can't get back to that date, do you have an opi ni on on what that does to the claims that he's asserted in this case?
A. Yes. W thout the 1996 priority date, his claims are i nval id.
Q. And Mr. Armstrong actually admitted that here in court, didn't he?
A. That's correct.
Q. Could you tell the jury - refresh the jury - did you hear that testi mony from Mr. Armstrong?
A. Yes, l did. This is testimony of Mr. Armstrong.

And the question is basically: And you agree, sir, don't you, that if you can't get back to 1996, it would have a very bad influence on the validity of your pat ent?

And he said: Yes, sir.
Q. Okay. Did you al so hear this aspect of Mr. Armstrong's testimony?
A. Right. Agai $n$ there is a question and answer here, and I think it's -- the relevant part starts: You agree with me that if you can't get a date of invention of 1996 for your 2002 clai mb, you agree with me that the patent is invalid, right?

And Mr. Armstrong says that what he wrote in 2000 has to be supported in 1996.

And if they are not, then your patent is invalid, correct?

Well, I guess, is what he says.
Q. Okay. And then did you al so see this part of Mr. Armstrong's trial testimony?
A. (Reading) It's critical that you get a 1996 date of invention for the ' 700 patent claims?

And he says: Yes.
Q. Okay. Now, do you agree with Mr. Armstrong's testim?
A. It is essential. If he were to have a valid
patent, he woul d have to have a date of 1996 for the priority date for it, yes.
Q. Okay. And could you tell the jury -- could you explain this slide to the jury?
A. Sure. Again, this is a timeline showing the sequence of events and showing that in April of 1998, the Goto European patent application published; so, there is a publication in April of 1998 describing this controller.

Then there is -- in June of 1998, Sony started selling their Dual Shock controller in the United St at es.

In October of 2000 the Dual Shock 2 was introduced. But it wasn't until November of 2000 that Mr. Armstrong filed the application that led to the ' 700 patent and the claims - the actual claims that talk about three input 6-degree- of-freedom that we're talking about in this case were not filed until July 15th of 2002.
Q. So, if Mr. Armstrong was not able to get back to 1996, as you've testified to, then he isn't first to come up with these controller designs; is --
A. That's right.
Q. And when you're not first -- if you have a patent and it turns out that you're not first, what happens?
A. Well, then your patent is i nvalid.

Okay. And do you have an opi ni on of whet her or not the clai ms - and actually, we should be a little bit careful here so that the jury can understand --
A. Right. Let me correct that.
Q. The validity of claims are termed on a
cl ai m by- cl ai m basis, right?
A. Yes. Let me correct that. It's very common for those who work in this to talk kind of generally but each claimstands al one $i n$ the patent. So, we only i nval i date the claims that we're considering here. The patent has many clai ms, many of which are not rel ated at all to this matter. They are a compl et el y different thing. So, when we say that a patent is invalid -- when I say it, l should say to correct that l'm saying that the claims that we're tal king about here are invalid. The ot her clai ms in the patent, we're not even consi dering, no.
Q. Okay. And you understand that as an attorney for Ni ntendo, my onl y concern is with the clai ms that Mr. Armstrong is asserting agai nst my client, right?
A. That's correct.
Q. And those are the onl y clai ms that we have, in fact, looked at for this anal ysis, right?
A. Right. That's correct. I am onl y considering
cl ai mo that are rel ated to this matter.
And we' ve looked at every claim now in this anal ysis that is being asserted against my client Ni nt endo?
A. That's correct.

Now, l'd like you to -- unfortunately, we can't just -- it's important that we go through the analysis so the jury can understand why it is that your opi ni on is that these things would be invalid and why

Mr. Armstrong agrees that they would be invalid and I want you to hel p the jury understand that process. Have you made some slides to do that?
A. Yes, I have.
Q. Okay. Now, could you just tell me what you mean by that statement first?
A. Sure. I am using the same analysis in these claims that Dr. Howe used when he tal ked about the infringement because one way of -- we want to look and see, in essence, would these same controllers be considered to infringe. In other words, that's the test for invalidity, if -- the particular test we're using for invalidity. If that controller was made after the patent, would it infringe the patent? Because something that is made before the priority date of the patent whi ch would infringe the patent means that it has all
the limitations and, therefore, it invalidates that cl ai m because somebody el se made the same i nvention earlier.
Q. Okay. Now, let's first take a look at the -- it says -- or could you please just tell the jury what that is?
A. Sure. This is a copy of the cover sheet of an application for a European patent. It's published, which means that the European Patent Office publishes to the public the application sometimes before they finish processing them This one has an international publication number. The date here is 23-04-1998. They're European; so, they don't write month, day, year. They write day, month, year. So, it's the $23 r$ d of April, 1998.

And this is a patent application that was filed by a Mr. Goto.
Q. And let me just point out that this is Defendant's Exhi bit 39.

Now, what is this?
A. Well, this is Figure 2 from the Goto application. And it's showing his idea -- in other words, he's describing now in his specification what his idea was. And as you can see, it's a controller. It's like the ones we've been tal king about. It's got what we've been
calling a "cross-switch" up on the left. These are a pair of (indicating) thumb-operated joysticks, and it's got some buttons here on the right (indicating). There's al so buttons on the front. 17 and 18 are buttons you activate with your fingers as you hold this device.

The first el ement, here again, the cross-switch; second el ement, the joystick; third el ement, the joystick. And then, of course, the housing and the buttons that we see.
Q. Okay. Now l'd like to ask you if you could tell the jury what this is.
A. This is another piece of prior art. This is from--
Q. And it came in June of 1998 ?
A. June of 1998. This is a PlayStation controller sold with the Sony PlayStation game. It has, over on the left here (indicating), a cross-switch. It has a joystick you operate with normally your left thumb and then another joystick for your right thumb and it has some buttons here and al so some buttons on the front. You can see the "L" and "R." Those are the left and right. There are some buttons on the front you can activate with your fingers.
Q. And this is .-
A. It al so has a vi bration motor inside the handle here (indicating), and I think you' ve actually got motors in both handles. Q. Okay.

MR. PRESTA: And for the record, that's Defendant's Exhi bit 103, physical exhi bit. BY MR. PRESTA:

Could you tell the jury what this slide is?
A. This is just a slide showing the controller and the PlayStation user's manual. This is a Japanese copy that has been, I believe, translated from 1998, a PlayStation user's manual.
Q. And you've revi ewed that document?
A. Yes, I have.

MR. PRESTA: And that's Def endant's
Exhi bit 86.
BY MR. PRESTA:
Q. Could you now tell the jury what this third thing is?
A. Sure. This is the Sony Dual Shock 2 controller. It's kind of a newer version or an enhancement of the controller we saw before. It's got some more features. It's got again the first el ement, the cross-switch. It's got the joystick. It has a vi bration motor -actually, a pair of them It has another joystick over
here (i ndi cating) and buttons.
And it has here (indicating), we'll see - it says "analog." This switch, when you turn it on, enables buttons to be anal og or proportional in nat ure. So, these buttons become proportional buttons on that device. And it is al so sold for use with the Pl aySt ation.
Q. Okay. I just want to point out again --

MR. PRESTA: I have to apol ogize to the court that $I$ see that there is an error on the date in the I ower left-hand side. I'd like to see if we can fix that real quick and clarify.

Thank you.
BY MR. PRESTA:
Q. Could you just tell the jury -- again it was correct, I bel ieve, in the upper right-hand corner; but down here (indicating) $I$ bel i eve it had a different dat e.

Could you just confirm of what your understanding is of when, in fact, the Sony Dual Shock controller was available to the public?
A. My understanding fromtestimony l've seen of Sony employees was it was in October of 2000 when it was available to the public in the United States.
Q. Di d you read the testimony from Ms. Pani co from

Sony that rel ated to the dates of these products that were introduced?
A. Yes, I did.
Q. Okay. And you will be hearing that testimony later today.

MR. PRESTA: This is Def endant's Exhi bit 105, the Sony Dual Shock 2 controller. BY MR. PRESTA:
Q. Now, could you tell the jury what this figure represents?
A. Yes. This is -- l'm showing here represent ative i mages of each of the three prior art references - - the Goto appl ication, the Sony Dual Shock controller itself, and the Dual Shock 2 controller -- next to our ill ustration of the features in claim 19; and we can see that these features mapped toget her.

For instance, we've got the cross-switch, the first el ement; the second el ement, the joystick shown here; the second element to the second element on the right.

The vi bration motors are inside; so, we can't really see them

And then at least two buttons - all of these controllers have at least two buttons. You can see each one has four on the front $p l$ us the ones that are located
on $t$ he other side.
Can you see -- okay. Do the i nput el ements that provide 6 degrees of freedom of control have -- are they -- they are common feat ures between all of these four items on the screen?
A. Sure. In each instance we have a uni di rectional set of sensors, four uni directional set of sensors activated by a rotating platform the first el ement from the claim

We have a bi-directional proportional sensor activated in two mutually perpendicular axes in each of these controllers.

We have a second joystick, in essence, a handle that activates a pair of bi-directional proportional sensors in each of these cases, a third el ement.

And $t$ hen $t h e r e$ are, of course, $t$ he on/ of $f$ buttons. And inside the cases is a vibration motor. Q. Okay. Then, do you have an opi ni on on whet her, for example, the Goto patent discloses the same thing as described in clai m 19?
A. Yes, it does. The Goto patent application from 1998 discloses every limitation of claim 19 and i nval i dates it as prior art.
Q. Okay. Now, what is your opi ni on with respect to
the Sony Dual Shock introduced in 1998?
A. The Sony Dual Shock controller from 1998, summer of 1998, meets every claimlimtation of claim 19 and inval idates claim 19 because it was al ready anticipated or done -- that invention al ready exists in the Sony Dual Shock controller.
Q. Now, the invention that Mr. Armstrong filed in 2002, is it your testimony that it al ready existed in Sony's Dual Shock controller in 1998?
A. Right. That cl ai med i nvention of cl ai m 19 exists in the Sony Dual Shock controller in 1998.
Q. Does that highlight the reason that Mr. Armstrong was trying to get back to 1996?
A. Yes.
Q. And why does it do that?
A. Well, because 1996 is before 1998.
Q. Okay. So, if Mr. Armstrong could go back to 1996, then concei vably some of these could actually be infringing controllers instead of invalidating controllers?
A. That's correct.
Q. Now --
A. No, that's incorrect because l don't think -- the patent di dn't issue back then. Ri ght?
Q. Okay. Thank you. That was kind of an unfair and
compl i cated question --
A. Yeah. You caught me on that one.
Q. -- which l would like to withdraw.

The Sony Dual Shock 2, could you tell us the i mpact that that has on clai m 19?
A. Well, again, the Sony Dual Shock 2 from October of 2000 has the el ements, meets the clai m limitations, every limitation, of claim 19 of the ' 700 patent. So, thereby, it shows that that clai mis inval id by anticipation.
Q. Okay. Now, do you need all three of those to i nval i date cl ai m 19?
A. No. A single example is sufficient to i nvalidate a cl ai med i nvention.
Q. Okay. Now, why do we have -- why do you have three up there, then?
A. Well, there happened to be three.
Q. Okay. But any one of them would be sufficient to i nval i date, i n your opi ni on?
A. That's right.
Q. Okay. Just to put this into perspective again, could you give the jury just another overview of $t$ his timel ine?

MR. PRESTA: I n fact, l'd like to go to SI i de 97 i nstead, which l believe would be more hel pf ul.

BY MR. PRESTA:
Could you put your testimony about these controllers in perspective for the jury?
A. Sure. Again, if we look at the timeline of events here, in April of 1998, the Goto patent application was publ ished. In June of 1998 Sony started selling the Dual Shock controller in the United States. And in October -- or on October $26 t h$ of 2000, the Sony Dual Shock was sol d in the Uni ted States.
Q. And when did Mr. Armstrong file his claims that he's suing Ni ntendo on?
A. Not until July 15 th of 2002.
Q. So, who was first - Mr. Armstrong or this guy Got o?
A. Goto, Mr. Goto.
Q. Who was first - Mr. Armstrong or the guy who i nvented the Dual Shock?
A. The guy who i nvented the Dual Shock.
Q. And who was first -- Mr. Armstrong in 2002, when he filed his clai ms, or the Dual Shock 2 ?
A. The Dual Shock 2 is first.

Okay. And what does that mean with respect to the - to your opi ni on with respect to claim 19?
A. Well, it establ ishes, as l've said before, clai m 19 is i nval id because it is anticipated. Every claim

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I im tation is met by prior art before Mr. Armstrong filed his claims that cover his described or clai med i nvention.
Q. Okay. Now, it's one thing to do that in a summary fashion; but l'm going to -- did you prepare some det ailed reasons why you bel i eve each one of those controllers is identical to the claimthat Mr. Armstrong filed in 2002?
A. Yes, I did.

MR. PRESTA: Could l jump, please, to
SI i de 108?
BY MR. PRESTA:
Q. Okay. Could you tell the jury what this chart is? A. Sure. I've made a little chart here to kind of show us the things we have to consider and give us a gui de as we work $t$ hrough it so we can keep track of where we are in the process.

And I've indi cated here on the left the cl ai ms and then each of the pieces of prior art to consi der. The Dual Shock, Dual Shock 2-- that looks like a typo there; DX 105 is the Dual Shock 2 - and then the Goto EP ' 212 patent application.

MR. PRESTA: Okay. I'd like to, if we could, please fix that title. I apol ogize for the typos in the slides. If we could make the second col um "Dual Shock
2."

BY MR. PRESTA:
Q. Just to clarify it again, to make sure that that typo hasn't caused you any conf usion.
A. Sure. The col ums here are first of the Dual Shock controller, the Dual Shock 2 controller, and Mr. Goto's EP ' 212 patents, European Patent ' 212.
Q. And you were tal king about claim 19 a minte ago; and you had i ndi cated that clai m 19 actually anticipated -- was antici pated by each one of those references, right?
A. That's correct.
Q. And what do you mean by the word "antici pated"?
A. Well, "antici pated" means that that prior art existed before the date of the invention; and it meets the claimlimitations of the invention described in the claim So, it meets every single claimlimitation; and it was before the time that the invention happened. Q. And is "anticipation" another termfor invalidity? A. Well, anticipation is the reason for i nvalidity. That prior art that anticipates a claiminvalidates that cl aim
Q. Okay. Now l'd like to have you walk through a little bit.

MR. PRESTA: And, agai $n$, coul d we fix the
typo, please, on Dual Shock? It should be "Dual Shock 2" at the top. And I apologize.

Defendant's Exhi bit 105, for the record, is Dual Shock 2, Defendant's Exhi bit 103 is Dual Shock, and Def endant's Exhi bit 39 is the Goto European- published patent application.

Thank you.
BY MR. PRESTA:
Q. Now, l'm going to ask you specifically about the Dual Shock 2 and explain to the jury -- did you devel op some slides that would help the jury actually see all the claim el ements --
A. Yes, I did.
Q. -- inside of the Dual Shock 2?
A. Yes, I did.

Because some of the el ements actually require that you look on the inside, right?
A. That's correct.
Q. So, to do a complete anal ysis, you would need to I ook at the inside?
A. That's correct.
Q. Did you do that?
A. Yes, I did.
Q. You've actually taken all of these apart?
A. Yes, I have.
Q. St udied all the parts in them?
A. Yep.
Q. And compared them to each one of these clai ms
A. Yes, I have.
Q. Okay. Di d you take pictures al ong the way?
A. Yes.

Okay. I'm going to ask if you could tell the jury what this is.
A. Well, again, this is the Sony Dual Shock 2 controller from October, 2000. And the pi cture on the l ower left is what we see if we take the case apart. You can still see here the handles of the two joysticks, and you can see a pl astic structure inside that hol ds the pi eces together. You can see on here these dark dots (indicating), and agai $n$ shown on the sheet to the right are the sensors that are underneath those ittle but tons.

And then if we look down on the lower left here (indicating), you'll see a darker surface and some shi ny chrome parts. That's a motor. That's the offset wei ght that makes it vibrate.

And agai $n$ if we look on the right-hand side, you've got a second motor over here (indicating) with a wei ght that can al so vibrate. So, there's actually two vi bration motors in here.
Q. Okay. Now, di d you compare this Sony Dual Shock 2 controller to every el ement inclai m 19 ?
A. Yes, I did.
Q. And, again, this is claim 19 from the 2000
application; and this is the Sony Dual Shock 2 that came out earlier, right?
A. Right.
Q. Okay. And, agai n, you're usi ng for this comparison the scope of the claims as asserted by Anascape, right?
A. That's correct.
Q. Okay. Can you go ahead and tell me what this first thing is?
A. Sure. The first el ement is structure allowing hand i nputs rotating a platform You can see the ittle pl astic el ement, which makes the four buttons on the I eft for the cross-switch, is that structure. It rot ates as you push the buttons down on the direction pad.
Q. Is it kind of like a cross-switch?
A. It is a cross-switch.
Q. Okay. And it looks like it's four individual buttons at the top; but when you open it up, it turns out it's really a platform right?
A. Ri ght. It's one piece of plastic, with actually a little pivot in the midde; and it tips back and forth
as you push the buttons down from above.
Okay. So, that part of the claimelement is found in that piece of prior art, that earlier controller, right?
A. Yes, it is.
Q. Okay. Could you --
A. The sensors --
Q. Go ahead. Thank you.
A. The sensors under neath there, there's four of them They are these spots on this sheet (indicating) of circuit board material that are pressed upon by the bottomside of a -- sort of a rubber density sheet in there that activates them when they are activated from the handle on top.
Q. Okay. And just to be --
A. Those are the sensors, put simply.
Q. Just to be clear, you've label ed these 1, 2, 3, and 4, right?
A. Ri ght. There's four of them
Q. And does that correspond to these four sensors that the claimsays it has to have?
A. Right. They are the four unidirectional sensors.
Q. And that's like the sensors under the cross-switch?
A. Exactly.
Q. Okay. Now, can you tell the jury what the next
part of this claimis and whether it's present in that --
A. It's the vi bration motor. Here we can see the motor, the wi res that drive it, and then the of fet wei ght that spins around when it's making vibration. Q. Okay. And how about the next - - the next part of the el ement?
A. Well, here we have the handle which is the second el ement. It can be moved on t wo mutually perpendicular axes because you can tip it forwards and backwards or I eft and right.
Q. Okay. So, this is that structure - a second el ement that's movable in t wo mutual y per pendicular axes. That's that thumbstick you --
A. That's the handle.
Q. -- can put your thumb on it and you can move it. Ri ght?

Were you here when 1 demonstrated that under the camera and showed that the things could move?
A. Yes, I was here for that demo.
Q. Okay. Could we take a look at the next pi ece?
A. Here, the next el ements underneath are the t wo potentiometers, the two bi-directional proportional sensors that are activated by that handle. As you rock the handle back and forth, it rotates the insides of the
potentiometers and generates a si gnal that's proportional to the tipping of the handle as they rotate those potentiometers.
Q. Okay. And that is aesthetically found inside the Sony --
A. Yes.
Q. -- Dual Shock 2 controller?
A. That's frominside.
Q. And that's a very common joystick structure that, in fact, we' ve seen in this case before, isn't it?
A. Yes, it is.
Q. And do you recall, you know, whet her, when Mr. Armstrong was drafting this part of claim 19-whether he had one of those joysticks in front of him? A. Well, l heard testimony that he was familiar with these devi ces here about that, yes.
Q. Okay. Thanks.

Now, the next part of the cl ai m ?
A. This is the third el ement.
Q. Let me ask you about the third el ement. Is it really identical to the second el ement except for the words "second" and "third" --
A. Yes, it is.
Q. $\quad-\quad$ in the claimlanguage?
A. Yes, it is.
Q. Okay. So, you're looking for a second one of those joysticks?
A. Right.
Q. And di d you find one in the Sony Dual Shock 2?
A. Yep. There's two joysticks. The second one is exactly the same as the first one.
Q. Okay. So, in the Dual Shock 2, under Anascape's vi ew of the claim does that thing have three el ements that together provi de 6 degrees of freedom?
A. Yes, it does.
Q. Okay. And that was before Mr. Armstrong's 2002 cl ai ms on the cl aim 19, right?
A. Yes.
Q. And could you tell us what the next part is?
A. Well, the buttons on the top. The claimlimitation says a pl urality of buttons. There's a group of them here, four up on top, which is, of course, a plurality. Q. Okay. Does it meet the rest of the claimel ement?
A. Yes, it does because underneath are the button sensors whi ch detect that actual actuation of the button, the electronic circuit that senses the button being pressed.
Q. So, then, could you tel me if you bel ieve that cl ai mis identically - the clai m that Mr. Armstrong filed in 2002 is identical to the product that was out
on the market well before he filed it?
A. Yes.
Q. And is it your opinion, then, that that claimis i nval id?
A. That claimis invalidated because this Sony controller has every limitation of that claimin it. Q. And it was earlier than --
A. And it's earlier than the effective date of that cl ai m

THE COURT: All right. Counsel, we're going to break for I unch.

Ladies and gentlemen, l'Il ask you to be back here at 1:30.
(The jury exits the courtroom 12: 13 p.m)
THE COURT: We'll be in recess until $1: 30$.
(Recess, 12:13 p.m to 1: 28 p.m)
(Open court, all parties present, jury present.)

THE COURT: Counsel, go ahead.
MR. PRESTA: Thank you, your Honor.
May I approach to hand the witness an
exhi bit?
THE COURT: You may.
BY MR. PRESTA:
Q. Good afternoon, Mr. Dezmel yk.
A. Good afternoon.

I just handed you a coupl e of exhi bits, and I would ask you if you could just -- first, do you recognize them?
A. Yes.

Could you just hold them up one at a time, grab either one of themfirst and tell me what exhi bit number it is? There's two exhi bit numbers on there. One is from a deposition, and one is from the trial. If you could just tell me the trial exhi bit number.
A. Sure. This is Defendant's Exhi bit 103. It's a Sony Dual Shock controller.
Q. Okay. Is that one of the controllers that you, in fact, were tal king about bef ore lunch?
A. Yes, it is.
Q. Could you just briefly hol d that up to the jury and just show them what it is?
A. Sure. This is the Sony controller, the joysticks (i ndi cating), the di rection pad. The rumble motors are in the handle, and the buttons on the front surface. Q. Okay. You had al so shown some of the inside of the Dual Shock. You had opened that up; and some of the i mages you saw were on the inside, right?
A. That's correct. You can open the cases up and look at the inside parts.
Q. And that's Defendant's Exhi bit 104, the opened-up Sony controller.

Could I get you to lift up the other and tell the jury the exhi bit number and show it to them please? A. Sure. This is - it's got a long cord. It is Defendant's Exhi bit 105. This is the Sony Dual Shock 2 controller.
Q. And you had al so shown the -- go ahead. I'm sorry.
A. Thi s controller, agai $n$ you can see it has the di rection pad (indi cating) and the first and second joystick, the buttons on the right; and again inside it has the rumble motors.
Q. And defendant's exhi bit -- or the inside that you showed the pi ctures of is 106, Defendant's Exhi bit 106. Thank you.

And those correspond to the controllers that you, in fact, indicated before lunch i nval idated claim 19?
A. That's correct.
Q. Thank you.

MR. PRESTA: If I could start the present at $i$ on agai $n, p l e a s e$.

BY MR. PRESTA:
Q. Now, before lunch, we had gotten to Dual Shock 2 anticipating claim 19 and you had concluded that and we
went $t$ hrough looking in detail at all of the inside of the parts. Now l would like to move on to the Dual Shock and compare it to claim 19. But because they are very si milar, l'm going to try, if we can, to do it in a little bit of a summary fashion like Mr. Cawley did with Prof essor Howe. Okay?
A. Sure.
Q. Take a look at the next slide, please, whi ch is -first of all, is it your position that the Dual Shock al so anticipates claim 19? I thi nk you testified to that.
A. Yes, it is. It's antici pated.
Q. Okay. Now can you tell the jury what we' re showing here, please?
A. Yes. Agai $n$ we're showing claim 19, here hi ghl ighted to show that we' ve met the requirements in a single piece of prior art, the Sony Dual Shock controller and agai $n$, just to go through them qui ckly, it has the first el ement, the two joysticks; the second and third el ement, the plurality of finger-depressible buttons with air sensors; and it has the vi bration means, the two motors we see when we open the case.
Q. Okay. So, is there any reason to have to go through the detail; or can you actually make a concl usi on regarding i nfringement based on what you can
see on the screen?
A. Well, I have gone through the detail; but yes, I can al so make a conclusi on based on what $I$ know and what I've seen on the screen and what we've all seen in front of us here that this meets every claimlimitation of cl ai m 19.
Q. Okay. So, in your view, then, claim 19 is al so antici pated by Dual Shock?
A. Yes, it is.
Q. I'd al so take a quick look at the Goto

European- publ i shed patent and ask you questions about that. Okay?

Could you tell the jury what this slide shows?
A. Sure. This is the first figure from the Goto publ i shed patent application; and, again, it's showing the el ements. We have the first el ement here of the four cross-switch buttons and thei r sensors; the vi bration sources are di scl osed in the patent; there is a drawing showi ng them in the handles; and then the second el ement, the third el ement, and the pl urality of finger buttons here. Each of the claimlimitations is present and disclosed in the Goto ' 212 application. Q. Okay. And that was a published - actually a publ i cation, right?

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A. It's a publication because it's - in Europe the patent applications are published.
Q. Okay. So -- and that is Defendant's Exhi bit 39, the Goto EP publication.

Then, is it your opinion that 19 is also anticipated by the Goto?
A. Yes, it is.
Q. Okay. And that's what this chart is representing?
A. That's correct.
Q. Now, again, your idea of anticipation is based on the plaintiff's scope of the clai ms that they are asserting in the case, right?
A. That's correct.
Q. Now, I'd al so like you to take a look at claims 22 and 23, which are the dependent claims. Could you tell the jury just briefly what that slide is showing? A. Certainly. The dependent claims add an additional I i m tation. I n the case of 22 , it says the hand-oper ated controller where the button i nput sensor out puts data that is proportionate to the depression of one of the buttons.

And here we have the Dual Shock 2 has proportional buttons so, certainly it meets that cl aim I i m tation where it outputs data that is proportionate to the depression of one of the buttons.
Q. So, does the Dual Shock show that i dentical feat ure?
A. It has that i dentical feature and anticipates
cl ai m 22.
Q. Okay. And how about claim 23?
A. For claim 23, again, the requi rement here of the claimlimitation is where the bi-directional proportional sensors are rotary potentiometers. Each of El ement 1 and Element 2 has rotary potentiometers activated by the handle and, so, it meets the requi rements of claim 23 and, therefore, that cl ai m is anticipated by the Sony Dual Shock 2 controller or the Dual Shock -- it's a Dual Shock 2 controller.
Q. And is that because the Dual Shock 2 i dentically di scloses what Mr. Armstrong clai med in both of those cl ai ms?
A. Well, it's the Dual Shock 2 because --
Q. Yes.
A. -- clai m 22 requires the Dual Shock 2 and the Sony Dual Shock controller -- this photo -- the caption says Dual Shock controller i nteri or. Dual Shock controller and controller 2 both have i dentical potentiometer-activated joysticks.
Q. Okay. Thank you.

So, now l'd like you to take a look at claim 14 and compare it to the Dual Shock 2. And we've al ready
seen the inside of the Dual Shock 2; so, I again ask you if there is a way to explain in a bit of a summary fashion so we don't have to take the jury through all the details of all of the things they've al ready seen -A. Sure.
Q. - with respect to claim 19.
A. Well, again, if we look at the el ements qui ckly for the Dual Shock 2, we have the group of sensors, the cross-switch. We have -- here we're looking for a first, a second, a third, and a fourth bi-directional proportional sensor; and those are the sensors attached to the joysticks. There are four of them

And then we're looking for a first button which has a limitation of a first button, which is a sensor that has a proportional signal. All of these buttons and the front buttons are proportional buttons; so, there are certainly two of those.

And then we have a sheet connecting to at Ieast ei ght of the sensors.
Q. So, is it your opi ni on --
A. If we look at the inside, we see there is a sheet that connects to at least ei ght of the sensors. Q. And you have actually opened those up; and we, in fact, saw those with respect to all the inside pieces, right?
A. That's correct

So, what is your opinion with respect to claim 14 rel ative to the Dual Shock 2 controller?
A. Dual Shock 2 controller invalidates claim 14.
Q. And, again, that's because --
A. Because it anticipates it. Each and every

I imitation is present.
Q. And it came before Mr. Armstrong's 2002 claims, right?
A. That's correct.
Q. In fact, more accurately, it came before

Mr. Armstrong's 2000 patent application that contains those claims, right?
A. Right. That's the date that is the most i mportant priority date here.
Q. Okay.
A. And it is before that date.
Q. So, we have one left; and it's claim 16. Now, cl aim 16 looks a little different. It says: Goto and Dual Shock 2 render obvious. It doesn't say anticipation.

Can you expl ai $n$ what you mean by that chart?
A. Sure. There's different sections in patent law that deal with the way in which an invention is tested. One of themis that every single el ement of the claimis
present in a previous product or publication.
Another one is the question of whether it would be obvi ous to make the invention; that is, you can't obtain an invention on something that is not exactly the same as something as is before in the prior art but is such a small change, a slight difference from something that al ready exists, that to make that change would be obvious to a person who was a practitioner. So, this is a different test that's applied.

And in this case we're looking -- we have to look at the claims, we have to look at the prior art, and then how much difference there is. And then we have to ascertain whether it would be obvious to a practitioner at the time to be able to make that whole i nvention given what they al ready knew and some of the prior art that they had available to them
Q. Is it fair to say that you would be looking for Iike insignificant changes -- insignificant differences? I'msorry. Not changes.
A. That's one example of what might make something obvi ous, that the changes would be so slight that you would look at it and say, "Well, that's obvious." It sounds like kind of a circular definition; but l think when we talk about it, it's one way to look at it or examples maybe of what would be a small change.
Q. But because you're saying it's obvious, it's your position that cl aim 16 is not $i$ dentically shown in ei ther one of those Goto or Dual Shock 2 references, right?
A. Right. But it would be obvious for a practitioner at the time to make that.
Q. Okay. I want to ask you what the differences are. I would like to take a look at 16; and l'd like you to expl ai n to the $j$ ury what the differences are, if any -I understand you believe there is a difference -bet ween clai m 16 and the Goto reference.
A. Right. The Goto reference -- first, let me focus on the part of the claimthat's important here -- is the el ements we found that are there are: the uni di rectional sensors; the second el ement; the third el ement, the two joysticks; and the first button sensor and the second button sensor, whi ch could be any of these proportional buttons; and the tactile feedback means. They're all present. The question is what is the difference, and what is the thing that perhaps -- we have to see if it's obvious, if a practitioner would have real ized they could do that.

If we look at -- it says that (reading) there's four sensors at least in part connected to a first sheet and then, further on, a second sheet, said
first sheet located on the first plane of the second sheet, in other words, a second printed circuit card. There's two printed circuit cards or sheets connected to the --
Q. Does Goto have two sheets?
A. No. In the Goto publication he essentially di scloses one sheet connecting his components. Q. So, then, why would it be obvi ous?
A. Well, it would be obvious because at the point in time in the Nineties when this invention was made, when the Goto invention was made, the engi neers knew that they could use different numbers of circuit cards for different sensors. We've seen other prior art examples where they had more than one card inside, and we will see in some of these examples that they used more than one circuit card. It's just that they don't match the exact configuration of how many switches were connected to one and how many of the sensors were connected to the ot her. And the choi ce an engi neer makes about how to hook those up really depends on the shape of the case, the location where they can fit the cards. It's not something that's really related or specific to the function of the device so much as the fact that you've got to get those circuit cards to fit in there and then you've got to put enough in there that they will fit in the case.
Q. Now, does the Sony Dual Shock 2 have multiple circuit cards?
A. Yes, it does. It has two. One, the brown substance here, is a circuit card. That circuit card is connecting both of the potentiometers. The other circuit card which is connected to it is a flexible green plastic material that actually bends around for several different parts of the internal connections in here. So, it has two separate sheets not on the same pl ane; but the connections to the sheet are not exactly the same as described here.

If we look through, you know, whi ch sensors on which sheet and which of these pods is connected to whi ch sheet, it's not exactly the same as 16 . However, it's a very, very slight difference; and a practitioner would know that they could connect those differently. They could make a separate connection, a different connection; and they would still get the same result. Q. Is there anything significant or any great i mprovement that Mr. Armstrong made, in your opi ni on, by just hooking up the wires to a different sheet?
A. No.
Q. Do you consider claim 16, the way the wires are said to be hooked up, to be something that would have
been patentable when Mr. Armstrong filed his invention in 2000?
A. No.
Q. Is it common to hook up sensors on sheets in a variety of ways, depending on the circumstances presented to you?
A. Yes, it is. And an engi neer would know that if he hooked them up in different ways, he would know what the result was. One test of obviousness for an engi neer or a practitioner is if l'mgoing to try something and do it differently, aml going to get the result l expect? So, in other words, if l make two circuit cards or three circuit cards instead of one and I hook them together, will I get the result l expect to get with having more circuit cards? And the answer, of course, is yes because, as you could see, you could make two circuit cards instead of one and you're still going to get the same effect.
Q. So, do you have an opi ni on on whet her claim 16 is, in fact, a valid claim-- l'm sorry. lt's claim-- yes, cl ai m 16.
A. It is invalid because it is obvi ous over the prior art.
Q. Okay. And is that what you're representing on this summary chart?
A. Yes.

Could you just tell, then, the jury what this chart represents?
A. Again, just to summarize, the claims that have been asserted in this litigation are invalid due to the prior art of Sony Dual Shock, Sony Dual Shock 2, and the Goto ' 212 publ ication in the case of claim 16 in view of Sony Dual Shock. That's just the way we say them when combi ni ng t wo references. The terminol ogy means that I' m using i deas from Goto and the Dual Shock and that, toget her, shows that it would be obvious to do that. Q. And your analysis, does it take into account the scope of the claimthat Professor Howe was using to say that Ni ntendo's GameCube infringes?
A. Yes. I use his claimscope.
Q. So, can you expl ai $n$ the rel ationshi $p$, then, bet ween that test and this val idity test?
A. Well, the test, as l understand it, is like this. If we have a claimscope that we're using to determine i nfringement, we're saying that a product that's made after the patent would infringe if it meets the claim scope. But if we take that same clai m scope, that definition of the claim and apply it to something that was before the priority date that the patent is entitled to, then that would show it's i nval id because we're
saying that we use a test to decide what the invention is after the patent, we use the same test before the patent to see was that prior art. And that's what we've done here.
Q. And just to confirm it was your opi ni on that claim 16 was obvious over the Goto reference combi ned with DS 2, right?
A. That's correct.
Q. Thank you.
A. There's a typo agai $n$ on the screen here. You have Sony Dual Shock --
Q. Okay.
A. $-{ }^{-}$
Q. Let's not put that screen up again, but let's -so, your opi ni on with respect to clai m 16, please tell me that opi ni on again.
A. For claim 16, it is invalid in the light of Goto and the Sony Dual Shock 2. That claimis obvious and, ther ef ore, inval id. Q. Okay.

MR. PRESTA: If we could go to SI ide 155, pl ease.

BY MR. PRESTA:
Q. Now, this was a slide that you had up in the begi nni ng of your testimony. Do you recall that?
A. That's correct.

Okay. Now, you said you were going to do these four things. Could you tell the jury what you've done so far?
A. Well, we've done the first one, that the claims are not entitled to the 1996 filing date.

We've done the second one. They are i nval id over the prior art, the Sony-rel ated prior art and the Goto patent application.
Q. Okay.
A. And now l guess our next step --
Q. Go ahead.
A. Well, it's looking us right in the eye. We're working our way down the list here.
-- that the clai ms are invalid for a lack of written description.
Q. Now, what does that mean?
A. Well, an invent or must describe their invention clearly in the application they file with the Patent Of fice. And we' ve looked at that a lot from the point of view of saying is the later-filed claims and application entitled to the earliest of the filings, way back in 1996.

But then there is another question: Are those clai ms even supported by the disclosures that are

I at er? Are they supported by the di closures of the ' 700 application in 2000?
Q. Now, because there is a second application that was filed in 2000 by Mr. Armstrong, right?
A. That's correct.

And that issued as the ' 700 patent, right?
A. That's correct.

And that ' 700 patent contains the claims in it that are being asserted in this case against Ni ntendo, right?
A. That's right.
Q. So, then, if l understand you correctly, you were checking to see if that 2000 application contain ned support for the claims that Mr. Armstrong wrote in 2002, right?
A. That's correct.
Q. Did you undertake an anal sis to see if even that later 2000 application described Mr. Armstrong's claims that he drafted in 2002?
A. Yes, I did.
Q. Did you make some slides to hel p the jury understand $t$ hat?
A. Yes, I did.
Q. And this is called the "written description test"?
A. Right. And that means, again, that the description -- and the written description includes the
pictures. That's a part of the description -- shows, again, that the invent or had that idea at the time; that is, it's fully disclosed. His idea is disclosed in the application or the specification for the patent. Q. Thank you.

Now, we have a slide up on the screen now; and that is -- could you tell us what that slide is representing?
A. Yes.
Q. First of all, let me just ask you: Did you review the application that was filed in 2000?

Earlier today we went through in detail the application that was filed in 1996, and now that's behind us. Now l was asking you to take a look at the application that was filed in 2000, the year 2000, that contained the claims that are being asserted in this case; and you undertook a study of that, you' ve told me, right?
A. Yes, l did.
Q. Okay. Now, when you undertook that study, did you, in fact, do the same thing that you did when you were trying to find support in the 1996 application for the 2002 cl ai ms?
A. Yes. I did the same anal ysis but this time with the November, 2000, application --
Q. Okay.
A. $\quad-\quad$ and its specification.

Because the clai ms -- coul d you just describe the rel ati onshi p bet ween these three thi ngs on the timel ine for the jury just so people understand now that we're moving to another topic?
A. Sure. We started to see if the claims that were written in July, 2002, and that ultimately are in the ' 700 patent that we're tal king about here were supported first back in this application (indicating), this written description; and we found they are not.

Now we' re going to look to see if they're even supported in the November, 2000, description when Mr. Armstrong filed the patent application that became the ' 700 patent.
Q. Now, why is it important that we find a written description - to see if there is written description support in the 2000 application?
A. Well, again, a reason for a patent's claim-a claimin a patent to be invalid is if there's no written description. We still have to determine did the i nvent or have that idea, the full scope of that patent, in mind when he filed that later application because even if he's only entitled to the date when he filed that in November, 2000, we still want to see if he had
enough -- if he even described the i nvention then, if he was able to -- in his mind if he had the whole invention at that point in time, the invention that he's clai mg. Q. You studi ed that issue, right?
A. Yes, I did.
Q. Di d you formulate an opi ni on of what the answer is to that question --
A. Yes, I did.
Q. -- that you just posed?

And what was it?
A. That there is no written description support in the application in November, 2000, for the asserted claims.
Q. You mean even in the - even in that application that he filed in 2000, there is no description of the i nvention that he later clai med in 2002? Is that what you're telling me?
A. Right. There's not enough information to show that he had that idea even at that point in time.
Q. Okay. Now let me --

MR. PRESTA: If l could go to that slide.
Thank you.
BY MR. PRESTA:
Q. Could you pl ease expl ain to the jury - now, there's a lot of similar subject matter in the -- or -I'm sor ry.

Q. Now, when you compare the first one to the second one, is the 2000 application broader in that regard than the 1996?
A. Yes, it is.
Q. Okay. What was the equivalent I anguage -- what was the Ianguage that was in the 1996 application?
A. Well, something that might say "a single input member" would be replaced with "at least one input member."
Q. So, in your view was the 2000 application broadened out in that regard?
A. Yes.
Q. Okay. Now, did you find any references to the Chang patent in the 2000 application?
A. No. The section that criticizes Chang and describes his prior art is no longer present in the specification.
Q. Okay. So, does that make the 2000 application broader, in your opi ni on?
A. Yes, because he's taking away his description of what his invention isn't.
Q. Okay. And you al ready mentioned that the figures are the same bet ween the two applications.
A. Yes.
Q. And when we say "the figures," we mean all of those
things with that yellow Ball 12 and the handles and all of those things that we looked at this morning?
A. Right. All the drawings from the patent are the same.
Q. Okay. So, were you able to formulate an opi ni on as to whether the claim-- starting with claim 19 and using again this illustration that we have for claim 19 that you made this morni ng -- whether, in fact, that scope of claim 19 is described in that 2000 patent application? A. Yes. I have anal yzed it, and my opinion is that claim 19-- the scope of the clai mfor claim 19 is still not supported or disclosed by that earlier application from 2000.
Q. And why is that?
A. Well, it does not disclose three input members. It still only discloses a single input member because all the drawi ngs still show a single input menber, and it really does not ever show that you could have three input members.
Q. Now, when you say "three input members," do you mean three input members that are capable of movement -of control of 6 degrees of freedom?
A. Right. It's three input members that are capable of giving you 6-degree- of-freedom motion and control. Q. So, when you went through the drawi ngs in the 2000
application, did you look for this feat ure that l'm circling now (indicating) that we tal ked about that you couldn't find in the 1996 application?
A. Ri ght. That's the feat ure l looked for primarily. Q. And tell me again -- well, you said the drawings were the same; so, how did your conclusions compare to your 1996 anal ysis?
A. Well, my concl usions are the same as the 1996 anal ysis because there is no evidence to support the contention that Mr . Armstrong had the idea, even in 2000, and disclosed that there was three separate input members that would give him 6 degrees of freedom motion. Q. But you said the text was -- reads -- instead of a "single input member," it reads "at least one input member."
A. That's correct.
Q. Doesn't that give you the support that you would be Iooking for for written description?
A. No. That's insufficient.
Q. Can you explain that?
A. Well, just to broaden it to say l might have more than one doesn't indicate that the inventor, the person who wrote this, actually had that complete invention with the scope that he's clai ming. It's certainly saying I have more than one; certainly doesn't mean
three and that I need three. It doesn't indicate any of the particulars of how it might work, and it certainly doesn't show an idea that you might have a complet el different design with separate input el ements that you activate to get different degrees of freedom
Q. So, specifically with respect to claim 19, can you tell us your opi ni on, then, with respect to whether there's written description support in the 2000 application?
A. There is no written description support in the 2000 application for claim 19.
Q. And if l understand your testimony, it's because this claimscope -- and, in particular, these three input el ements with those particular sensors -- cannot be found anywhere in that application?
A. That's correct.
Q. Could I ask you to do the same anal ysis with respect to clai m 16? And, again, this is the claim 16 that you tal ked about before; so, if there is any way you can summarize it and hel p the jury understand the issue without repeating yourself, it would be hel pful. A. Sure. Again, like we saw before, there is not a di sclosure of three input members in the 2000 application, which is necessary to support the full scope of this claimthat we've seen described in front
Q. Now, again, this application does say at least one,
of us. There just simly isn't any disclosure like that. though, right?
A. Ri ght. It says at least one but it does not disclose three used to form 6 degrees of freedom and it doesn't provide any detail to suggest that a person really had the fully formed idea, the invention, of the separate handles and using them to create that 6- degree- of - freedom controller.
Q. Okay. Thank you.

Now, again, there's one more independent
cl aim claim 14. And did you compare claim 14-- and again we have an illustration of claim 14 here. But my question to you is -- you understand the claimscope from the Ianguage of the claim My question to you is: Is claim 14 supported by the 2000 application?
A. No. Cl ai m 14 is not supported by the 2000 application.
Q. And, again, could you just tell me why?
A. Well, because there is not any disclosure or support within that application to show that the inventor had in his possession as an invention at that point in time what is the full claimscope of claim 14 and, in particular, the ability with this configuration
of separate control el ements, they were hand-operable to get that 6-degree-of-freedom control as required by the cl ai m

Okay. So -- this is a summary chart, and could you just tell the jury what your summary of conclusions are with respect to the 2000 application relative to the three independent cl ai ms that Mr. Armstrong drafted in 2002?
A. Sure. For each of those claims, there was no written description in the application in 2000. And, agai n , when we get to claim 22 and 23 , because they depend from claim 19, since claim 19 lacks support, then claim 22 and 23 al so lack support. Q. And when something lacks written description support, when a claimlacks written description support in the patent in which it's contained, as you're indicating in this case, what is the result of that?
A. Well, the result is that claimis invalid.
Q. Now, is that a different type of invalidity than the prior art invalidity that we tal ked about?
A. Yes, it is.
Q. And coul d you expl ain that?
A. Well, again, the test is did the invent or actually have this idea, the full idea of the claim the full scope of the claim in his possession; was that in his
mind when he wrote the application. And if there's not enough support or description of it in the application, then the inventor is not entitled to that invention described in the claim
Q. And are your conclusions about not having support in the 2000 application similar to the reasons that there's no support in the 1996 application?
A. Right.
Q. And, again, could you tell us just why -- what is the main reason?
A. The primary reason is the lack of multiple input el ements that the user can touch to operate with their hand to obtain 6-degree-of-freedom control in the application. The disclosure there, even though it says there may be more than one, it does not have enough di sclosure to cover the case of three separate ones. Q. Thank you.

Now l'd like to ask you to try and explain what this -- could you tell the jury what this timel ine is showing? Just hel p put things into perspective. A. Ri ght. Agai n, it's just showing that -- here that the -- that we had the original application in '96 with its priority date and then the Iater-filed application in 2000; and then, finally, the final set of claims were filed in 2002, the claims that cover three input

6- degree- of - freedom devi ces.
And then in bet ween we have the prior art -the Dual Shock 2, the Dual Shock, and the Goto patent application.
Q. Okay. So, it's your view, then, that because there is no support in the 2000 application, that the claims that are being asserted in this case are invalid because they're not supported by the application in which they are contained -- or the patent in whi ch they're cont ai ned?
A. That's correct. But just to make sure this chart is not misleading in any way, that invalidity occurs because of a lack of written description support between the patent and the application here. It's separate -- a separate reason for invalidity from the fact that these prior art devices al so exist. These are more than one reason why those claims are invalid.
Q. Thank you.

Now l'd like to just -- can you explain what this chart is showing?
A. Sure. The original description back in 1996-- the description there said that the invention was really a single input, a single handle, a single handhel dinput.

Then in 2000 that was changed to "at least one" in many places in the specification.

And then in 2002 we have, I guess, the claim whi ch has three inputs.
Q. So, sort of a progression of the scope increasing from the one to the other?
A. That's correct.
Q. Now let me ask you: Could you tell the jury again the timing of when these prior art references came into exi stence?
A. Sure. Again, we can see -- after the initial application, we see that -- the Sony products arriving.

Here, in August of 2000, we see this is a prot otype that was -- I guess some information leaked out about a Ni ntendo prototype.

And then here (indicating), after that filing in 2000, the GameCube I aunched in 2001.

And then finally on July 15th are the claims that require to have three inputs.
Q. So, the claims in 2002 having three inputs came after the GameCube and the Sony references that we see up there?
A. That's correct.
Q. Okay, Mr. Dezmelyk. Thank you.

Now we're back to our sort of summary slide. And have you done another one of the things you tol d us you were going to do in the begi nni ng?
A. Yes, I have.

Okay. And is that the third one?
A. Yes, it is.
Q. And is it your opini on that the claims are invalid for lack of written description?
A. Yes, it is.
Q. Okay. Now, we have one more section, one more section that is a very i mportant section; and that is noni nf ringement. Di d you undertake a study to see whet her, $i n f a c t, ~ e v e n ~ i f ~ t h e ~ c l a i m s ~ w e r e ~ v a l i d ~--~ I ~$ understand your position is that they're not -- but even if they were val id, whet her or not they actually infringed the cl ai ms?
A. Yes. I conducted that anal ysis, as well.
Q. Okay. And could you tell me what your opi ni on is with respect to noni nfringement?
A. Sure. None of the asserted claims are infringed by the Ni ntendo products.
Q. Okay. Di d you prepare some slides to hel p the jury understand why that is?
A. Yes, I did.
Q. Now, first of all, maybe you could just tell the jury briefly what is required to i nfringe, based on your underst andi ng.
A. Well, agai $n$, this is - a test is that the accused
product -- that is, if we want to see if a product is infringing, we have to look at that product and see if it has every el ement that's listed in the claim That's the test. We go again through these same clai ms el ement by element and see if that is present in the product that is accused of infringement.
Q. Okay. And this chart - I think we've seen it before, but can you tell the jury what it is?
A. Right. This is just a chart showing the asserted claims in this lawsuit and which products correspond to whi ch claims; in other words, which cl ai ms Anascape has asserted are infringed upon their ' 700 patent.
Q. Okay. And I notice that, in fact -- I think everybody's well aware that the Wi Remote and the W i Nunchuk are onl y accused of infringing claim 19, right? A. That's right.
Q. Okay. Did you do an anal ysis of whether, in fact, that Wi Remote controller and that Wi Nunchuk controller infringed clai m 19?
A. Yes, I did.
Q. Okay. And just briefly, without telling me the details yet, what's your concl usion about infringement with respect to claim 19 and the Wi Remote and Nunchuk?
A. Claim 19 is not infringed by the Wi Nunchuk combined with the W i Remote controllers.
Q. Okay. Now, did you see some of the vi deos that were pl ayed earlier about all of the various ways in whi ch this controller operates?
A. Yes, I did.
Q. Okay. Have you - could you tell me what your opi ni on is with respect to just the nature of this controller that Ni ntendo has made?
A. Well, it's a quite different kind of controller - or, actually, here two controllers are quite different. Q. Okay. Now, you've heard of the fact that there's been some testimny about accel erometers being present in --
A. Yes, l've heard --
Q. -- these controllers?
A. -- that testimony.
Q. Okay. Could you tell me what your opi ni on is with respect to the accel erometer, just generally?
A. Well, that the accel erometer in the $W$ i Remote does not cause any infringement.
Q. Okay. Could you tell me what this slide is represent ing?
A. Well, fundamentally, that accel erometer is very different from Armstrong's invention. We'll talk about that in more detail, but it's a completely different type of thing.
Q. Could you just give us a little bit of an overview of why an accel erometer is something that's different than Mr. Armstrong's i nvention?
A. Sure. In the simplest sense, the accel er omet er detects something that's compl et el different from your motion of your hand on a handle. It detects accel eration, the change in how fast something is moving; and it al so detects gravity, the gravity that's around it. And that's compl et el y different than the moving of a handle.
Q. Do you recognize this slide?
A. Yes, I do.
Q. Could you tell the jury what it is?
A. Sure. This is, again, the description by

Mr. Armstrong of how there was a single i nput member that moves in 6 degrees of freedom disclosed in his application.
Q. And these are the things sitting on the table in front of the jury?
A. That's correct.
Q. Now I'd like to get more specific now about why you have the opi ni on that the accel erometer does not result in infringement of the $W$ i Remote controller and the $W$ i Nunchuk controller. Okay?
A. Okay.
Q. First of all, l'd like to ask you to explain what is in these controllers.
A. Okay. Let's start with the controller on the right, the W i Remote controller.

At the top is a camera that looks out at the Iight bar and detects the location of those lights in its field of view and, therefore, it gives it the position rel ative to the TV set.

We have a cross-swi tch here (i ndicating),
where we can rock that in either direction. The $A$ button, which is just (indicating) a button we press for action.

Some more little buttons in the middle here (i ndi cating), a couple buttons down at the bottom (indi cating), a rumble motor inside, and then the accel er ometer whi ch detects -- inside is a chip sol dered ont o the board which detects accel eration of the controller.
Q. Now, there's al so an accel erometer in the W i Nunchuk controller, right -- or -- I'm sorry. Is there an accel erometer in the $W$ i Nunchuk controller?
A. Yes, there is.
Q. And have you looked at that accel eromet er?
A. Yes, I have.
Q. Okay. What other features are on the $W$ i Nunchuk?
A. The $W$ i Nunchuk has a little joystick handle and a couple of switches in the front side.
Q. Okay. So, you've tol d me that there is an accelerometer in each one; there's a cross-switch on the Wi Remote; and there is a joystick on the W i Nunchuk controller; is that --
A. That's correct.
Q. -- accurate?

Okay. Now, why -- do you have an understanding as to the reason that Anascape can't use the second accel erometer to support their infringement case?
A. Well, I have a basic understanding. I'm an engi neer not a lawyer; but, yes, I have a basic understanding of $t$ hat.
Q. Okay. But basically -- I'masking rel ative to the cl ai mb.
A. Okay. Rel ative to the claims, the primary reason is that there are two controllers here and -Q. Well, let me ask you to stick with the accel erometer first.
A. Okay.
Q. Okay?

And l'd like to take a look at clai m 19 and expl ain to the jury if you have an understanding of
whet her the second accel erometer - or why the second accel er omet er woul d not be something that $i n$ any way could support infringement and is not being relied on by Anascape.
A. Well, my understanding is that we've heard from the allegations that the cross-switch matches -- the first el ement is the platform the second el ement is the joystick; and the third el ement, shown here in pi nk, is the accel erometer. That's the position that Anascape is taking.
Q. And that you need to find all of those feat ures wi thin those three el ements in order to infringe the cl ai m? Is that your understanding?
A. That's right.
Q. Okay. Now, the other accel erometer that's in this slide would be, in fact, the fourth el ement, woul dn't it?
A. And the cl ai m
Q. Right.
A. If it was an el ement.
Q. The claimrequires all of those features to be found in three, right?
A. Right.
Q. Now l'd like to ask you about the accel erometer. Do you understand that Anascape has alleged that the

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accel eromet cor cosponds to the third el ement in claim 19?
A. Yes, I understand that's their position.

Okay. Do you have -- can you tell me whet her that third el ement is, in fact, present? Can you tell me if you could, tell the jury what the differences are bet ween that accel er ometer and that I anguage requi red by the third el ement in claim 19.
A. Sure. The first step is that the third el ement has to be movable. But, of course, the accel erometer is not movable; it's attached to the printed circuit card permanently by being sol dered on in the factory. You can't -- it's not movable in any way.
Q. Okay. What's the next reason?
A. There's no structure to activate it. As we saw bef ore, in the case of the joysticks that were pointed out i n other systems, there's al ways a handle or somet hing that actually moves the sensor. But here there's nothing that moves the sensor. There's no structure to acti vate it, no part that actually moves the sensor.

THE COURT: Al 1 right. Counsel, we're going to take a break.

Ladies and gentlemen, l'll ask you to be back at 2: 30 .

## THE COURT: Counsel ?

MR. PRESTA: Thank you.
BY MR. PRESTA:
Q. Now, before the break, Mr. Dezmel yk, we were I ooking at whether the cl aim I anguage $\mathrm{in} \mathrm{claim} \mathrm{19}$, particularly the third element claimlanguage, is met by the accel erometer in the Wi Nunchuk as Anascape contends -- I mean, Wi -- I'msorry -- in the Wi Remote as Anascape contends.
A. Okay.
Q. I'm going to ask you if -- first of all, if you could take a look at this third el ement of claim 19 and tell me whether, in fact, that accel erometer contains the first part of that third el ement and, in particular, the part that says: Movable on two mutually perpendicul ar axes, said third el ement structured to activate these two sensors.

Can you explain to the jury what that means, pl ease?
A. Sure. There is no third el ement that's structured
to activate the two bi-directional proportional sensors that are required for this claim In other words, there simply isn't a third element.

The accel erometer, this chip, is just a sensor that's sol dered onto the board. There's no separate el ement to be used to activate it.
Q. Let me ask you: Were you here when I was having a discussion with Professor Howe about this joystick? A. Yes.
Q. And that was, if you recall, the joystick of $f$ of the game controller that Professor Howe said satisfied this element. Do you recall that?
A. That's right.
Q. Do you recall when Professor Howe said that if we remove that structure that activated these two sensors, that claim 19 woul d not be infringed?
A. Right. I recall that portion of his testimony.
Q. Do you agree with that opi ni on?
A. Yes. That's true. Wthout that el ement, we do not meet the requirements in this claim Q. Now, even though there would, in fact, still remain two sensors?
A. That's right. Even with the sensors present, you need the el ement to activate them to meet this claim requi rement.
Q. Okay. Now, were you also here when there was a debate about whether or not the accel erometer has one sensor in it or two sensors in it?
A. Yes, I was here for that debate.
Q. Okay. And, now, do you have an opi ni on on whet her, in fact, there is one sensor or two sensors in that little accel erometer?

MR. CAWLEY: Objection, your Honor. This expert report contains nothing about the interior of the accel er ometer.

THE COURT: I believe that's correct, counsel.

MR. PRESTA: Your Honor, I'msorry but I thought this issue was raised before and you indicated that we did, in fact, have support. He has the --

THE COURT: Hold on a second.
All right. You're correct. Go ahead, counsel. Overruled.

MR. PRESTA: Thank you, your Honor.
BY MR. PRESTA:
Q. Now, again -- I forgot my question, but let me just start again on that point.

You were here for the debate of whether there was, in fact, one sensor or two sensors in that accel erometer, weren't you?
A. Yes.

And do you have an opi ni on on how many sensors -or let me first ask you this: Are there different types of accel er omet ers?
A. Sure. There are many different types of accel er omet ers.

Are there some that have one sensor in them? A. Yes.
Q. Are there some that have more than one sensor in them?
A. Yes.
Q. What ki nd has Ni ntendo used in this Wi Remote controller?
A. The accel erometer in the $W$ i Remote controller has one sensor in it.
Q. Okay. Now, di d you undertake a study, when you were asked to determi ne infringement or noni nfringement, of the products to see what type of accel erometer was in there?
A. Yes, I did.
Q. And did you actually look at the chip, not the i nsi de but physically determine what chip was on there?
A. Yes, I did.
Q. Then what di d you do?
A. Well, then l obtai ned the data sheets for that part chip, the specific chip that is in that product, when you did your anal ysis?
A. Yes, I did.
Q. And was that specific data sheet that's provided by
from Anal og Devices and then I read some background material that described it to get a better understanding of how that part worked.

Di d you actually get the data sheet for the act ual the manufacturer included in your expert report?
A. Yes.
Q. Did you actually anal yze the correct chip when you di d your study?
A. Yes, I did.
Q. Now, does the information from Anal og Devices clarify whether, in fact, there was one sensor or two sensors in that accel erometer?
A. Yes, it does.
Q. And what does it tell you?
A. Well, it tells you there's one sensor in that accel er ometer.
Q. Now, first, before we get into the issue of the accel erometer and the number of sensors -- first, is it your position that -- does it matter, in fact, whether there's one or two sensors for infringement?
A. No, because we still do not have the third el ement
to activate it.
But it is still your position that there is just one sensor?
A. That's correct.
Q. Okay. Now, would you be able to --

MR. PRESTA: Your Honor, l'd like to ask if $t$ he witness could get of $f$ the stand and use the easel and give a very brief description of how that accel er omet er works.

THE COURT: Yes.
MR. PRESTA: Thank you.
THE W TNESS: Thank you.
BY MR. PRESTA:
Q. Mr. Dezmelyk, perhaps - - is it possible for you to use the microphone?

THE COURT: You'll need the mi crophone.
THE W TNESS: Thank you.
BY MR. PRESTA:
Q. And, Mr. Dezmel yk, again, l'd like to ask you if you could just try to explain to the jury, using that pad, how that accel erometer, the specific one that is in the $W$ i Remote, based on your understanding, works and how many sensors are in it.
A. Sure. This is a little tricky because accel er ometers are compl icated. This is a ki nd of
complicated device. So, if l can, l'm going to take a minute to explain a couple words $\mathrm{l}^{\prime} \mathrm{m}$ going to use in my discussion and a little bit of background so it's a Iittle clearer what l'mtalking about before l draw the inside of it and how that thing is operating, how it works.

The first idea you've probably heard here is this idea of a capacitor or capacitance. Now, the two words sound similar. Capacitance is a physical property like di stance bet ween two objects. So, there's capacitance between me and that wood or between me and this surface here.

A capacitor is something that hol ds el ectrical charge; and we actually have all had that experience in our lives because if l shuffle my feet on this carpet, l'Il build up an electric charge. That charge is sitting on me. l'm the capacitor that's charged up, bet ween me and the rest of the world. If that charge accumulates on me and l get closer and closer and closer to the other object, at some point if I get close enough -- we've all had it happen where you grab a doorknob on a dry day and you feel a spark. That spark is the electricity -- the charge, we call it -the buildup on you as a capacitor or part of a capacitor di scharging to the other side of that charge.

So, the idea of capacitance or a capacitor, that's something that can exist just in the world. It exists all around us. We make things for that purpose in el ectrical circuits because it's a useful property. We al so use that to measure things in small structures like this one. But the first thing to understand is capacitance is a physical property like distance, and actually the capacitance bet ween me and that board will increase as l get closer.

And probably the best example l can give of that is not going to work well for the younger people here but for those of us who grew up with a plain old TV with an antenna, if you ever recall when you touched the antenna on the TV, you got a better signal, in part because that's the capacitance of your body affecting the antenna for that tel evision set.

So, understanding that, how does an
accel eromet er work? l'mgoing to again go off a little bit to give a little explanation about this.
Q. Now, Mr. Dezmelyk, I appreciate that. I do --
A. I'm moving forward.
Q. Thank you.
A. Okay. This device is very, very small. And the way it's made is in flat sheets. And l'm going to make a gi gantic rendition of it. The actual device is tiny.

And it's made in a process of very thin sheets that are cut and that cutting of the sheets is the same way you could cut paper with a knife. So, l'm going to make a di agram of the inside of that. I'm not going to draw it exactly like it is because it's a little more compl i cated.

But first off (illustrating), we've got this chi $p$. And inside of that chip let's say there is an area where the accel erometer itself is going to be. And I'mgoing to draw it simplified. There is a mass. And actually, if we looked at a picture, that mass is more like a ring to pack it all in tighter; but it's a mass. And it's got little springs holding up its corners.

But the way this is made is these springs are cut froma sheet. So, actually, I leave -- I cut out a very thin film And this filmis all one piece. And when 1 mean thin film it's way thi nner than human hair. This entire structure si deways is like the size of a pi ece of your hair. It's minuscule.

Then I want to know -- when the accel eration happens, this mass is going to move. When there is a sudden change in the acceleration, this mass is going to move a little bit one way or the other. These act like springs to hold it towards the center, but it will move a tiny bit. So, l need to be able to measure how that
moves; and 1 want to measure it moving this direction, this direction, and in and out of the page. It's going to be hard to draw the in and out of the page; so, l'm going to concentrate on the other two directions. And the way l can do that is like this.
(IIlustrating) I put a plate here, a plate here, pl ate here, a plate here. And actually, those plates look like a row of fingers in a comb, to get more area. But conceptually, in terms of what they do, it's just like this easel has capacitance; l put a plate there. And l bring a wire out there and a wire out here and a wire out here and a wire out here. But I don't measure those wires. I put voltage onto those wires. In other words, I connect up a voltage -- a signal here. And I know this is complicated. But l put signals onto the wires. I make this signal go to a higher voltage and this one go to a lower voltage.

Then l make this one go to a hi gher voltage and this go to a lower voltage. And as l change the voltage on the plates around it, what's called a differential capacity, the mass in the midde changes its voltage.

And the reason it changes its voltage is the capacitance bet ween the two sides all towards the one el ement in the middle changes. So, if this is a little
close for one side, it pi cks up more of the voltage from this. If it is a little close for this side, it picks up a little more from that one. And all l have to do is measure the one voltage $t$ hat comes of $f$ of here and separate out the signal from the $X$ and the $Y$ di rection and 1 know how this is moving.

But the entire part here is the sensor. There's no separate components. If l take the midde out, if l take the mass out, there's nothing left that can work. There's only one connection to the outside world, one signal coming out.
Q. Let me get that right, Mr. Dezmelyk. There's one si gnal that comes out?
A. One signal, one wi re that comes out. Actually, they use one of the springs as the path for the el ectricity. And they take that one signal out; and then you have to process it, what we call "demodul ating." We have to separate out the information for the $Y$-- that is, the vertical direction - from the horizontal direction and remember in this part, this di rection (i ndicating).
Q. So, even though there is one wi re coming out - but could you expl ai n to the jury, does that one wi re have information about all three directions on it?
A. Yes, it does. Because when the voltages are put on
the plates around the outside, they are put in order.
This one goes up (indicating). The one opposite it goes down. This one (indi cating) would then right after that point in time -- it would make this one go up and this one go down.

And when you're looking at the output, first you look at one of them to get the horizontal. Then you Iook at it a moment later to get the vertical. Then you look at it a moment after that to get the other direction. And then you keep repeating that over and over and over again to detect from one signal coming out of here whi ch way that mass in the middle is moving. Q. And is that type of a structure known as a "single sensor" or "multisensor accel erometer"?
A. That's a single sensor accel eromet er.
Q. Are there other -- how many differential capacitors are there in there?
A. Well, there's really one. There's plates around. There's four here and one underneath. There's five plates; and then there's the center plate which is the mass, which in each instance forms the opposite side of the pl ate to the differential pair.
Q. Mr. Dezmelyk, that's very hel pf ul and l appreciate that and l'll ask you if you could -- unl ess you have somet hi ng el se important to say about it, l would ask
that we get you back on the stand.
A. Thank you.

THE COURT: Okay. Let's move the easel bet ween me and the jury, please.

MR. PRESTA: Yes.
BY MR. PRESTA:
Now, what l'd like to ask you is: That explanation that you just gave, were you able to confirm or -- where did you get your understanding of that?
A. Well, it's knowl edge 1 have in general about how this type of accel erometer works. I've al so seen some of $t$ he patents that cover that and also, of course, the data sheet, which is the most important thing that you Iook at as an engi neer, to start.
Q. Okay. And did you get a copy of that data sheet?
A. Yes.
Q. Okay.

MR. PRESTA: Could l pull that up, please?
BY MR. PRESTA:
Q. Now, is this the actual data sheet that was attached to your expert report that contains the information on the particular chip that's in Ni ntendo's Wi Remote?
A. Well, l think so but it's got a plaintiff's exhi bit tag on it and l can't --
Q. Okay.
A. I have to read it a little more carefully to make sure that's the same one.
Q. Okay. It says Plaintiff's Exhi bit 192. It's al so Def endant's Exhi bit 200.
A. Okay.
Q. It turns out that both of us put it on the list.
A. Same one, fine. Thank you.
Q. Yes.
A. Because l know they had another one at one point.
Q. Yes. Now, does that confirmto you whet her it's
the right data sheet?
A. Yes, that's correct. Thank you. I just -- it's hard for me to read the small type on the screen.
Q. Is your monitor on on your screen?
A. It is, but the type is very small.
Q. Just checking. Thank you.

Now, can you tell me what this is telling you?
A. Sure. It's explaining that it's a three-axis accel erometer, all on a single chip, a single part. Q. What is the drawing showing you?
A. A single three-axis sensor and then a demodul at or whi ch takes it out to the three out puts.
Q. Okay. Then, let me ask you about this other
"theory of oper ation" section.
A. Well, in this section Analog Devices is explaining that it's a single IC.
Q. When you say "IC," you mean integrated circuit?
A. That's an abbreviation for integrated circuit. The
little chip that's inside the package is called an i nt egrated circuit.
Q. And they refer to it as a single sensor?
A. As a sensor.
Q. And, again, could you tell the jury what that -
A. The same here, that "the sensor" is a-- and then they're going into details of how it is made.

Polysilicon is the very thin - those very thin sheets l tal ked about.
Q. Now, let me ask you: Is the fact that they use "sensor" si ngul ar, is that just a matter of semantics as Professor Howe i ndicated it might be?
A. No, not at all. That's actually an important poi nt and a bi g selling point for this kind of chip is it only has a single sensor because it avoi ds some errors you get when you have multiple sensors.
Q. Now, does this document actually confirm whet her it's a single sensor or not?
A. It certainly confirmb it's a single sensor.
Q. Okay. Does this hel p you with that? Could you
tell the jury what it means?
A. Sure. Again, Anal og Devices, describing their part, says it uses a single structure for sensing the X , $Y$, and $Z$ axes.
Q. Now I'd like to ask you now: This other part here, if you could tell the jury whether or not this confirms your opi ni on and confirms what you drew to the jury that, in fact, it's one sensor?
A. Yes. They are expl ai ning that they measure the deflection of the structure; that is, the motion of that central piece is measured using a differential capacitor that consists of the independent fixed plates. Those are the lines I drew around the outside that are driven with the square waves and then the plates on the other side are attached to the moving mass and they are part of it .
Q. And is that saying that there is, in fact, just one differential capacitor?
A. Just one differential capacitor, yes.
Q. Could you then expl ai $n$ what the next sentence is sayi ng?
A. Well, they are explaining that they determine accel eration because the moving mass moves -- that is, it moves a tiny bit -- and it unbal ances the differential capacitor; and that generates the sensor
out put, of course, which is proportional or related to the accel eration.

And is that what you were describing on the easel? A. Yes.
Q. And the last sentence?
A. They are expl ai ning here that $t$ hey demodul at ed -that is, they take apart the information that comes out from the one wire that's coming of $f$ of the sensor -i nto the three parts to get the magnitude and direction of the accel eration.
Q. And does that then confirm your opi ni on?
A. Yes, it does.
Q. That it's, in fact, one sensor?
A. Yes. There's one sensor.
Q. Thank you.

Were you here when Professor Howe i ndicated that the proof mass inside the accel erometer is, in fact, the third el ement
A. I heard hi m testify to that, yes.
Q. Okay. What do you think about that?
A. Well, I thi nk it's wrong because the proof mass is the sensor. It's an integral part of the sensor. There can't be something that's actuating it.
Q. Okay. And, in fact, were you here when Professor Howe put up this figure?
A. Yes, I was.

And he indicated that it's this little proof mass in the middle that, in fact, is the structure that activates the sensor, right?
A. I heard hi m testify to that, yes.

And, agai n , woul d you agree wi th that?
A. No. That's incorrect.
Q. And could you pl ease describe to the jury why you bel i eve it's incorrect?
A. Well, it's incorrect because that mass is the sensor. And one way to confirmthat in thi nking about it is if l could magically reach inside that chip with m croscopi c tweezers and take that proof mass out of the middle, l woul dn't have any sensor left. It is the very sensor itself. It is the device that has a-- makes an el ectrical si gnal that is connected to the circuitry. Q. So, Dr. Howe's position, then, is that the sensor is the thing that activates the sensor?
A. Apparently that's his position, yes.
Q. Does that make sense to you in the context of claim 19?
A. No.
Q. Thank you.

Now, is it your understanding that Professor Howe actually, in his initial report when he did his
opi ni on, bel ieved that there was, in fact, an accel erometer that had three sensors in it?
A. Yes. He mistakenly identified the accel erometer in the Wi Remote as one that had three sensors in it. Q. Okay. And that was actually not the case, was it? A. No.
Q. Because the accel erometer that's in the Wi Remote actually onl y has one of those, doesn't it?
A. Well, it has one sensor, right.
Q. It has one accel erometer?
A. Right.
Q. There's also, of course, an accel erometer in the Wi Nunchuk; but that's not part of this case, is it? A. Right. That's not involved in this case. Q. Now, let me just back up for a minte and ask you a si mler question. Now, that was sort of a technical reason that -- where we got into Professor Howe's -- the reason that we believe there is no infringement. l'd like to ask you a simpler question.
l'd like to just ask you: Is there an easier position that you have as to why, in fact, the Nunchuk and the Wi Remote do not infringe claim 19?
A. Well, l think there's a very simple idea; and it came to me the first time l was asked to look at this. And that is that if we look at the claim what l see
here is two controllers. I don't see one; I see two devi ces.
Q. Now, the court has construed the term "controller," right? Di d you take that --
A. Yes.
Q. Are you aware of $t$ hat ?
A. Yes, I am
Q. Di d you take the court's construction into account in connection with this anal ysis?
A. Yes, I did.
Q. Could you -- are you familiar with the court's definition of the term "controller" that's in the jury not ebooks?
A. Yes, I am
Q. And is that your understanding of what that definition is on the screen?
A. Yes. That's the definition that says: A device hel d in the user's hand - and then it goes on to say: That allows the hand or finger i nputs to be converted and so on.
Q. Okay. Do you have an opi ni on on whet her, in fact, the combi nation of the $W$ i Remote controller and the $W$ i Nunchuk controller satisfied that definition?
A. I do not believe it does.
Q. And why is that?
A. Well, because there are two devices hel d in the user's hands. There's not a device hel d in the user's hand.
Q. Well, when you look at any one of these devices, are you able to find all of the things that are in claim 19?
A. No. If we take them separately and say, "Let's l ook at each one," then we do not find all those el ements.
Q. Di d they have to combi ne the el ements fromeach in order to make it -- try to make a case for infringement? A. That's right.
Q. And i n your view, is that appropriate under the cl ai m l anguage as you have been -- as you understand the cl ai m and the court's clai m construction of certain terms?
A. I believe it's incorrect under the court's construction of the claimlanguage.
Q. Let me al so ask you about this: Do you see the term "controlling objects and navi gating a vi ewpoint" in the second and third el ement?
A. Yes, I - I see those.
Q. Now, are you aware that the court has al so made some rul ings in connection with those terms?
A. Yes.
Q. So, are you familiar with those rulings?
A. Yes, I am
Q. Have you taken those rul ings i nto account in your det ermination of whet her there's infringement?
A. Yes, I have.

Okay. And, in fact, in the jury not ebook there are some definitions that rel ate to this; and l wanted to ask you: Di d you do an anal ysis of the games that the pl ai ntiff has identified to see whet her, in fact, Ni ntendo's system actually can do those thi ngs?
A. Yes. I tried the games identified by the plaintiff and saw how they functioned and what they were able to do, what they could do.
Q. Okay. Do you recognize this chart?
A. Yes, I do.
Q. What is it?
A. This is a chart from my report where l took each of the games that had been pointed out by Anascape -- and the final one being the systemitself -- and then whet her or not the second el ement could control an object or a viewpoint and whether or not the third el ement could control an object and/ or a vi ewpoint.
Q. And what did you concl ude when you looked at all of the games?
A. Well, I found there was never an i nstance where the
third el ement they i dentified could control a viewpoint.
And the third el ement that they identified is the accel erometer, in thei r vi ew?
A. Yes. In thei $r$ view that's the el ement they i dentified.
Q. And any of the games that they identified in connection with the case, did they -- them-- is it your opi ni on that none of them used the accel eromet er to change the vi ewpoi nt?
A. That's right. None of them did.
Q. Okay. Thank you.

Now l'd just like you to summarize if you could and tell the jury what this screen is.
A. Well, on this screen l've just put forth the -ki nd of a summary of the things we've di scussed, the nat ure that it's a new product, compl et el y different, and the really key points - that there are two
controllers; there is no third el ement, it's not movable -- the accel erometer is not movable; there is no structure to activate it; and there's only one sensor.

So, the requirement for the third el ement, even if you combine these $t$ wo, is not met.
Q. So, is it your opinion, then, that this product does not infringe claim 19?
A. It does not infringe claim 19.
Q. Thank you.

Now, the next product in line is the W i
Cl assic and the W i Remote connected together. Do you understand that?
A. Yes.

Once again, they are not accusing either the $W$ i Cl assic Controller by itself or the $W$ i Nunchuk -- I'm sorry -- l'm sorry -- or the $W$ i Remote by itself, right?
A. Right. It is onl y the combi nation of those two controllers that are being accused.
Q. Do you have an opi ni on on whet her that combi nation infringes cl ai m 19?
A. My opinion is that it does not infringe claim 19.
Q. And why is that?
A. Well, a couple different reasons. Primarily, again, that the el ements are not present if we go through them If we look -- agai $n$, we have the same issue where it says a hand-oper ated controller. The definiti on of "controller" is a device hel d in the hand. And if we look for the limitations present in either of these devices, we cannot find it.
Q. Now, is there - for example, claim 19 requires that there be a rumble motor, right?
A. Right.
Q. Is there a rumble motor inside the $W$ i $C l a s s i c ?$
A. No, there is not.
Q. There's one inside, though, the $W$ i Remote.
A. That's correct.
Q. Is that why -- so, that's why they need to be combi ned in order to satisfy the claimlanguage, in your vi ew?
A. Yes. You woul dn't have - the W i Cl assic Controller by itself lacks a rumble capability; so, it woul dn't meet that limitation by itself. It only meets it when it's combi ned with the ot her controller.
Q. Di d you actually try to play some games to see what the functionality of the Wi Cl assic Controller is?
A. Yes.
Q. And what di d you determine?
A. Well, there are al so particular situations - well, first off, there's no rumble. But there's al so particular situations where you cannot meet all of the requi rements for navigating a viewpoint and controlling objects with both el ements with the W i Cl assic Controller.
Q. Do you recognize this chart?
A. Yes, I do.
Q. Do you know why the Wi Cl assic is called the "Cl assic"?

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A. Yes, because it's intended for playing the really ol d games. And really there's only a couple games here on this list that it can even play; and one of them for instance, Paper Mario, this is actually a Ni ntendo 64 game that was written for running with the Ni ntendo 64 system And it can also be used to operate the W i systemitself. In other words, you can use the handles on the controller to operate the W i menus with them

But if you look at that game, the Paper Mario game, it's not possible in that game to use a third el ement to manipulate objects or a viewpoint or even to use a second el ement to mani pul ate a vi ewpoint.
Q. Are you aware that the Wi Cl assic Controller -- do you know if the Wi Cl assic Controller works with any GameCube games?
A. Not to my knowl edge.
Q. Okay. Are you aware of whether or not, in fact, the -- there are games that Ni ntendo has for its system where you can use both the joysticks to do anything?
A. I'm unaware of any, but $I$ haven't tried all of the ol d games nor their 2-D games.
Q. But the games you did look at that were identified by the plaintiff, what was your conclusions with respect to those?
A. The third el ement does not do anything, and the
second el ement cannot control or mani pulate a viewpoint.
Are you aware of any games where both of the joysticks are operable on the W i Cl assic Controller? A. No.
Q. Have you read -- did you investigate at all to see, in fact, whet her there were games that the W i Cl assic Controller could be used, for example, to play GameCube games to require actually two joysticks?
A. Ri ght. I have read that it cannot be done. I certainly have not tried every game in the world. I onl y tried the games that were in this case.
Q. Okay. And you said you read and heard -- and read it could not be done, did I hear?
A. Ri ght. My understanding is it cannot be done. Q. And what is your understanding of why it can't be done?
A. I don't have a -- I don't know what the motivation was or why that's the case.
Q. I understand. Thank you.

Now, l'd like to ask you a few questions about the Wavebird and the Ni ntendo GameCube. Okay?
A. Sure.
Q. Now, when we look at claim 14, there is a term
"3-D" in claim 14. Do you see that?
A. That's correct.
Q. That same term al so appears in claim16. Are you aware of that?
A. Yes.
Q. Now, you read the court's -- the definitions that the court has given us that control certain meani ngs in this case, right?
A. Yes.
Q. And is that term "3-D" meant to just mean

9 three-di mensional graphics?
A. No. The court has constructed that claim and it has a specific meaning.
Q. And what is that meani ng?
A. Well, it is something that is capable of movement in 6 degrees of freedom
Q. Now, again, why is Figure 7 up there from

Mr. Armstrong's application --
A. Well --
Q. -- patent?
A. -- Figure 7 shows us an example of something movable in 6 degrees of freedom or capable of movement in 6 degrees of freedom That's the example he used. Remember, the center ball there, which was El ement 12, which is capable of movement in 6 degrees of freedom It can go back and forth on the axes, and it can rotate ar ound.
Q. Now let me ask you: When they were demonstrating these games, when Anascape was demonstrating, like, the Mario game and he had hi m running around in that game, di d you see hi m being controlled in 6 degrees of freedom?
A. No.
Q. Now, did you see -- but it was 3-D graphics, right?
A. Right. The picture, the screen, is
three-di mensional in nat ure. It looks like a 3-D scene, much like a movie.
Q. Now, Professor Howe was saying that those were 3-D graphics. Is that rel evant to the analysis of whet her there are 6 degrees of freedom?
A. Not exactly and no, because "3-D graphi cs" means 3-D in the ordinary sense of how we $t a l k$ about 3-D. Ri ght? That is that something looks three-di mensional, I i ke a three-di mensional view we have with our eyes. But the definition by the court of "3-D" is very specific, capable of movement in 6 degrees of freedom So, that is, it is actually movable in that way, not that it just appears three-di mensional.
Q. Did any of the stuff that was demonstrated with respect to Mario running around and jumping on that ball and doing all those things indicate to you that he was being controlled in 6 degrees of freedom?
A. No.
Q. Okay. Could you expl ai $n$ why?
A. Well, in the game you're controlling a little sort of virtual version of a person and he can jump and he can run, but there's never a place in the game where you can control him and make himturn end over end like an astronaut floating in space or make himgo sideways while he's lying on his side. That's just not possible. The game I i mits you, and you can only control himin certain ways.
Q. So, it is important to -- when determining infringement, to use the definition the court gave us and not to just si mply assume that 3-D graphics, in fact, satisfied the claim ls that your --
A. Right.
Q. Have you looked at the various games that are accused -- that have been i dentified, not that are accused -- and I apol ogize. That's not a correct statement. Strike that.

Have you looked at the various games that were identified by the pl aintiff in connection with these products?
A. Yes.
Q. Di d you see any evi dence that any object is controlled in 6 degrees of freedomin any of those
games?
A. No.
Q. Now, is that true for the Wavebird and al so the GameCube?
A. Yes.
Q. Now, one thing l didn't ask you about was the dependent cl ai ms with respect to the Wi Cl assic and the Wi Remote. There's dependent claims 22 and 23 that those Wi Cl assic and Wi Remote have been accused of. Are you aware of that?
A. Yes.
Q. But you al so said that cl ai m 19 , the i ndependent cl aim was not infringed. So, what would be your opi ni on with respect to the dependent claims 22 and 23? A. Well, if the independent claimis not infringed, then the dependent claims are not going to be infringed, either, in this case.
Q. Now, did you al so take a look at the games that were identified by the plaintiff to see if, in fact, the joysticks on the Wi -- I mean, on the GameCube and the Wavebird could, in fact, be used in the manner set forth in the claims
A. Yes.
Q. And, in particular, did you -- if l could go to -do you recognize this chart?
A. Yes, I do.

What is it?
A. This, again, is a chart showing, for the games that were listed by Anascape in Mr. Howe's report, what you could do with the second el ement and the third el ement -- that's those joysticks on the GameCube Wavebird -- in terms of controlling an object or controlling a vi ewpoint.

And as you can see, there's no way, there's no case, no example where you actually can control an object with the third el ement.
Q. Di d you do that same - that chart is for both the GameCube and the havebird, isn't it?
A. Yes, it is.
Q. So, agai n, then, do you have an opi ni on on whet her or not the GameCube -- whet her the GameCube infringes any of the asserted clai ms?
A. The GameCube does not infringe any of the asserted cl ai mb.
Q. What about the Wavebi rd ?
A. The Wavebird does not i nfringe any of the asserted cl ai ms, either.
Q. Well, Mr. Dezmelyk, I appreci ate your time.

MR. PRESTA: l'll pass the witness.
THE COURT: Who's for plaintiffs?

MR. CAWLEY: Sorry, your Honor. May I proceed now?

THE COURT: Yes. That's what I was asking, who would take hi m

CROSS- EXAM NATI ON OF ROBERT DEZMELYK
BY MR. CAWLeY:
Good after noon, Mr. Dezmel yk.
A. Good afternoon.
Q. I just have what I hope won't be too many
questions; although, I know you' ve been on the stand a while and naturally that's raised some questions that I'd like to discuss with you.

Let's talk first about the Sony controllers. You di scussed those at some length. Remi nd us when the Sony controllers that you discussed were first introduced to the market.
A. Sure. The Sony - the first Sony controller introduced was the Sony Dual Shock, which was introduced in June to retail sal es. It shi pped early, of course, to wholesalers; but it was on retail sale -- l believe you'll hear from the Sony witness -- at the end of June, in June, 1998.
Q. 1998.

And the Dual Shock 2 was released in what year?
A. In October of 2000. 2000.

So, it's absol utely clear, isn't it, that both of those products were rel eased years after Mr. Armstrong's 1996 patent application?
A. Yes. They are rel eased subsequent to the original 1996 application.

And you al so mentioned a patent -- a foreign patent called either "Goto" or "Goto" (pronouncing), something like that, you remember?
A. Yes, I did. It's a -- to be accurate, it's a foreign-published patent application from Mr. Goto. Q. What was the date of that patent?
A. The date of the patent issuing -- I don't know the publication date -- is in April of 1998.
Q. '98. So, that also is at least two years after Mr. Armstrong's 1996 patent application, correct?
A. That's correct.
Q. Now, you spent quite a bit of time going through the Sony controllers, both the Dual Shock and the Dual Shock 2, and comparing them to the asserted claims -- at least some of them -- in the ' 700 patent, correct?
A. Yes.
Q. And isn't it fair to say that you concl uded that
both of those Sony products are using the invention described in those clai ms of the ' 700 patent?
A. No. That's an incorrect statement of my concl usi on.
Q. Well, let me ask you this: Isn't it true that you said that they antici pate those claims
A. Yes. They antici pate the claims.
Q. Doesn't that mean, then, that those devi ces practice or do or have what is described in the claims? A. It means that they meet the claimlimitations, but since --
Q. All right, sir.
A. -- they were issued before the --
Q. That really was $m y$ question. That was my question. They meet or have within them what the claims describe, correct?
A. That's correct.
Q. Okay. Have you had any di scussions with any Ni ntendo employees in this case?
A. Well, briefly l met a couple of Ni ntendo employees here during the course of the trial, l think some of the people that are --
Q. Is that all?
A. That's all.
Q. You haven't had any di scussions with any Ni ntendo
employees about how their products work or how they devel op their products?
A. I have not spoken to them about their product devel opment process or how those products work, no. Q. Have you bothered to make yourself aware that some Ni ntendo employees have described the Wi Nunchuk as being an extension of the Wi Remote?
A. I'm not aware of $t$ hat, but that's a fair characterization. It adds to its capabilities. Q. And it's true, isn't it, that the Nunchuk doesn't work at all without the Wi Remote.
A. That's true. That's similar to the way the Wavebird won't work without its receiver. Q. Okay. But your answer to my question is yes, correct, the Nunchuk won't work without the Remote?
A. Right. The Nunchuk uses the Remote to transmit its information back down to the Wi.
Q. All right. So, it woul dn't surprise you if

Mr. Genyo Takeda, who is an engi neer and a developer for Ni ntendo, had testified in his deposition that he considered the Nunchuk to be an invention of the W i Remote. That wouldn't surprise you, would it?
A. No.
Q. Were you here for the testimony of Mr. Ikeda Iast week?
A. Yes, I was.

And di d you see him pl ayi ng the boxing game?
A. Yes, I did.
Q. And he needed both the $W$ i Remote and the $W$ i Nunchuk toget her to be able to do that, didn't he?
A. He used both of them when he was playing that game, yes.

And he needed them to be able to do that, didn't he, to be able to play that boxing game?
A. Yes. He used both of them in the course of playing the game.
Q. And were you here for Ms. Jacqual ee Story's
testi mony l ast week?
A. I'msorry. I was not present for her testimony.
Q. Have you read her testi mony?
A. No, I haven't.
Q. Let me show you a slide, Slide Number 3, that she used in her testimony. Have you seen this slide bef ore? A. I mean, I've seen the characters; and I' m generally familiar with it, yes.
Q. In the upper Ieft there is a character called "Link." Do you see that? Are you familiar with Li nk? A. Yes.
Q. Do you know that Li nk appears in the game of Zel da: Twilight Princess?
A. Yes. He's one of the main characters in that game.

And you know, don't you, that you need the W i
Nunchuk connected to the Remote to pl ay that game?
A. Yes. You can use it - you use both of them in the course of pl aying that game.
Q. Yes, sir.

And $\operatorname{Mr}$. I keda al so testified, didn't he, that for games that requi re the use of the Nunchuk, if you at empt to use the game wi th the $W$ i Remote alone, you get a message on the screen saying you've got to connect the Nunchuk?
A. Is that a question?
Q. Yes, sir.
A. Oh.
Q. $\quad I^{\prime} m$ sorry.
A. I'msorry. I didn't realize if -- l didn't know if you were done.
Q. Let me add onto the end of it. You know that, don't you?
A. Ri ght. He has said that was the case.
Q. And Ms. Story al so testified --

MR. CAWLEY: I'm sorry. If we could have
that slide back up again.
BY MR. CAWLEY:
Q. Ms. Story al so testified, didn't she, that Mario
and Luigi and at least one princess are in the game Super Mario Gal axy?
A. Well, again, who were you referring to in the testimny there?
Q. Ms. Story's testimony.
A. Ri ght. I told you l was not present for her testimony so, l don't know what she testified to. Q. Okay. Then, are you aware that the characters Mario and Luigi and the princess all appear in the game Super Mario Gal axy?
A. Yes, those characters all appear in that game. Q. And you need the W i Nunchuk to play that game, too, don't you?
A. Yes. You normally use the Nunchuk to play that game.
Q. And then, finally, are you aware that, as Ms. Story told us, this character, Samus, in the lower right-hand corner of the slide, is the main character of the game Metroid Prime 3?
A. I'm not familiar with Metroid Prime 3; so, I can't really comment about Samus or the game.
Q. Are you aware that you need the Wi Nunchuk to play that game?
A. As l said, l'm not -- l've never played that game, not familiar with the details of it; so, l can't really
comment on how it's played.

Let me show you a pi ece of the transcript of Ms. Story's testimony. She was asked: And was Samus a character for the GameCube series, as well?

She answered: Yes.
Question: And what game does she appear in on the Wi system?

Answer: She looks quite a bit different because she wears a suit of armor.

Okay.
Answer: But l believe -- well, she's in Met roid Prime 3.

Question: All right. And to play that game, you need to use the Wi Remote and the Nunchuk, don't you?

Answer: Yes. I beli eve you do.
Do you have any reason to di sagree with
Ms. Story about that?
A. Well, l don't have a reason to either agree or di sagree. I've never played the game. I'm not familiar with the game. So, I have no more i nformation about that than her testimony.
Q. Let me ask you some questions about the accel er ometer. You said you were here for Mr. I keda's testimony, correct?
A. Yes.

Let me ask you if you remember this testimony.
Question: Mr. Ikeda, isn't it true that one set of capacitors in the accel erometer is used to detect accel er ation on the $X$ axis?

Answer: The $X$ axis can be measured, as well.
But at the same time, measurement can take place al ong the $Y$ and $Z$ axes.

Question: Yes, sir. That's my next question. Isn't it true that a different set of capacitors is used to detect accel eration on the $Y$ axis?

And his answer: Yes, different capacitors and probes for the $Y$ axis.

Di d you hear that testimony, sir?
A. Yes, I did.
Q. Let me ask you about some ot her of Mr . I keda's testimony.
(Reading) So, there are capacitors that sense movement in the $X$ axis, correct?

And he answered: That's correct.
And then he was asked: And there are
capacitors that sense movement in the $Y$ axis, correct?
And he answered: That's correct.
I said: Thank you, sir.
And he added: And there are capacitors for
the $Z$ axis, as well.
Do you remember hearing that testimony from
Mr. I keda?
A. Yes, I do.
Q. Have you ever seen a picture of the interior of the accel erometer used in the W i Remote?
A. I think so. I'm not sure if l've seen a photo of the exact chip that's on that particular -- certainly -I' m not sure -- they change by version; but I have a general idea of what that chip looks like on the surface, yes.
Q. Well, my question is -- let me ask this specifically: Have you ever seen a Chi pworks report for the chip inside the $W$ i Remote?
A. Yes, I have. I've seen the Chi pworks report.

MR. PRESTA: Objection. There's been no foundation that that Chi pworks report --

MR. CAMLEY: He just testified to that.
THE COURT: I can't hear your objection anyway.

MR. PRESTA: I'm sor ry. The objection was
foundation with respect to the Chi pworks report.
THE COURT: Overruled.
BY MR. CAKLEY:
Q. You've seen that picture, haven't you?
A. Yes, I have.

And I think you just said that as far as you know, it's a fair depiction of what's inside the chip?
A. Yeah. I could direct your attention to one part of it where 1 think is a pretty accurate description of what the chip is.
Q. Well, it wasn't the description; it was the photograph that $l^{\prime} m$ interested $i n$. Do you thi nk that the photograph that you saw in the Chi pworks report was an accurate depiction of what you saw -- of what is insi de the $W$ i Remote chi p?
A. I think the photograph I saw that shows a single sense li ne coming from the proof mass and shows a pair of drive lines, one for $X$ and one $f$ or $Y$, is an accurate depi ction of that chip, yes.
Q. You heard Mr. I keda's testimony that actually is still up on the screen about capacitors that sense movement in the accel erometer, correct?
A. Yes.
Q. Have you exami ned the 1996 application to deter me whet her they refer to the possibility of using capacitors as sensors?
A. The application - Armstrong application?
Q. Yes, sir, 1996.
A. No, not specifically.
Q. Do you mean that it doesn't?
A. No. I wasn't looking for the presence - the specific mention of a capacitor as a sensing device. Q. Have you read the application?
A. Yes, I have.
Q. Well, wouldn't that be pretty important to this case to know if Mr. Armstrong had described as -- the possi bility of using a capacitor as a sensor?
A. It would be rel evant to the extent it was related to the rest of the structure. I think -- I'd be happy to look at it if you would like to point me to the place that you're tal king about.
Q. Okay. Let's look at Sl ide 2. You see that this is an excerpt from the 1996 application?
A. Yes.
Q. And it's on - in the jury book it's on page 12, I i ne 12. And beginning at the top it says: For the purposes of this teaching, specification and claims, the term "sensor" or "sensors" is consi dered to i ncl ude not onl y si mple on/ off, off/on cont act switches but also proportional sensors such as proxi mity sensors, variable resistive and/ or capacitive sensors. Do you --
A. That's correct.
Q. Do you see that, sir?
A. Yeah. He's listing that as an example of a type of
sensor.
Q. Yes, sir. And does a capacitive sensor use a capacitor?
A. Yes.
Q. And is that the type of capacitors that Mr . I keda descri bed?
A. It's -- a capacitive sensor measures capacitance, and it's a type of sensor.
Q. Yes, sir. And it's a type of sensor that was specifically di scussed by Mr. Armstrong both in his 1996 appl ication and in the ' 700 application, correct?
A. Right. He discloses - he listed certain types of sensors --
Q. I think my question was: It was listed, correct? And I thi nk you just confirmed that it was,
right?
A. It was listed, yes.
Q. Okay.

MR. CAWLEY: Let me ask Mr. Martin or
Mr. Moreno to pull up your Slide 194.
BY MR. CAWLEY:
Q. This chart lists, among other games, the game Zel da: Twilight Princess, correct?
A. This chart, yes. The Legend of Zel da: Twilight Princess, yes.

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And you've played that game, haven't you?
A. Yes, I have.

And you played it with the $W$ i Nunchuk connected to the W i Remote, correct?
A. Yes. This chart, though, is about the W i Cl assic and the W i Remote.
Q. Okay. Di d you pl ay this game with the W i Cl assic connected to the $W$ i Remote?
A. Yes.
Q. Well, the test is - sorry. You corrected me.

This is about the $W$ i $C$ assic; and, so, you played the game not with a W i Nunchuk but with the --
A. Well--
Q. -- Wi Cl assic connected to the $W$ i, correct?
A. Well, I thi nk you're mischaracterizing. "Playing"
is l tested the game.
Q. Okay. Fine.
A. And the answer is no, none of those el ements do anything. But you woul dn't say that you're playing the game. There's a little bit of a different perspective on it because the game is not played with the Cl assic controller.
Q. Okay. You tested it, then?
A. Right. This chart is showing what I tested, because l tested each of the games.

But you can't play the game Zel da: Twi Iight Princess with the Wi Cl assic Controller, can you? A. As you can see in the chart here, neither of the controls do anything. So, in fact, as this chart is showing, you can't control objects and you can't control vi ewpoi nts -Q. Right.
A. -- with either handle, whi ch means you can't play the game.
Q. So, the reason that the Wi Cl assic Controller can't control objects and navi gate vi ewpoints is it's not compatible with this game at all, is it?
A. Correct.
Q. Okay. So, you could list 50 controllers that aren't compatible with this game and say the same thing about it, coul dn't you?
A. Well, I don't think there are 50 controllers. And, again, l'mlooking at the very specific set of games in Dr. Howe's report. It's a rebuttal report. So, l'm allowed to look at the games he suggested and go through them and test them and this is my test results. So, in fact, l have to test them all; and that's the results of the testing.
Q. Well, maybe there aren't 50. But, for example, the At ari controller isn't compatible with any of those
games, is it?
A. Well, but again, sir -
Q. I'mosry --
A. -- l'm writing a rebuttal --
Q. I'm sorry. Could you answer my question?

The At ari controller is not compatible with
that game, is it?
A. No, it is not.
Q. Okay. And that doesn't tell -- merely saying that it doesn't control object and viewpoint or object and vi ewpoi nt doesn't really tell you anything about the At ari controller, does it?
A. It tells you that it does not meet that claim I i mitation.
Q. Well, it tells you, doesn't it, that it's not even compatible with the game and never was intended to be used with that game in the first place? Isn't that true?
A. Yes, and shows you it doesn't meet the claim I im tation for that game.
Q. Isn't that true, sir? Was your answer "yes"?
A. Yes, along with the rest of $m y$ answer, which is
that it does not operate that game.
Q. I'm sorry, sir. Maybe l'm bei ng unclear in my question. has your answer "yes"?

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A. Well, my answer was if you -- can you please restate the question?
Q. Sure. Since the Atari controller isn't even compatible with the game The Legend of Zel da: Twili ght Princess, saying that it doesn't control object and vi ewpoi nt doesn't really tell you anything about the capability of the controller, does it?
A. It does tell you that you cannot meet the claim I i mitation of claim 19 with that controller.
Q. And that game, correct?
A. Right.
Q. What if it does it with another game?
A. That's a different test.
Q. Are you saying to the jury that it's a fair test to take a controller, to see if it can control objects and vi empoints, and to test that on a game that the controller is not even compatible with?
A. No. You're mischaracterizing my statement in my report.
Q. Well, so, you're not telling the jury that, then, correct?
A. No.
Q. It's true that you can't play Shrek the Third with the W i Cl assic Controller, either, can you?
A. That's correct.
Q. And you can't play Ani mal Crossing with the Wi Cl assic Controller, can you? That's a GameCube controller.
A. Again, that's correct.
Q. You can't play Blood Oren II with the Wi Cl assic Controller, can you?
A. That's correct.
Q. You can't play Super Mario Gal axy with the Wi Cl assic Controller, either, can you?
A. That's correct.
Q. Now, you recognize that the left thumbstick on this controller is capable of controlling objects, isn't it? A. Right. That's correct.
Q. But isn't the right thumbstick exactly the same as the left thumbstick?
A. In terms of its internal design --
Q. Yes, sir.
A. -- yes.
Q. So, woul dn't it be capable, therefore, of controlling objects, too, if the game designer chose to program his or her game that way?
A. If a game designer chose to do that, yes, it could be used for similar functionality.
Q. All right, sir.

MR. CAMLEY: Let's take a look at SIide 217.

BY MR. CAWLEY:
Q. Is this another chart that you showed us?
A. Yes, it is.
Q. And this chart says that it shows the GameCube controller doesn't move objects or navigate vi ewpoi nts wi th Zel da: Twilight Princess, correct?
A. Yes.
Q. Di d you, by any chance, review the game manual that comes with Zel da: Twilight Princess?
A. Yeah, but I don't recollect it at the moment.
Q. Don't worry. I think I have a couple of printouts from that manual.

Let's take a look at the slide. That's the cover of it. Does it look familiar?
A. l've seen it, yeah.
Q. Do you see on the left thumbstick that it says "Control Stick"? Do you see that?
A. I do see that.
Q. And do you see that it says "wal k/run/ swi m j ump"?
A. Yes. But I also see - i isn't this the GameCube version of Zelda?
Q. Sir, if l could get you to answer my question.
A. It says --
Q. Is that what it says?
A. Yeah.
Q. And doesn't it show that the left thumbstick is used to make Link swim run, and jump?
A. Yes.
Q. And doesn't it show that the right thumbstick is used to navi gate vi ewpoints?
A. It says "change camera angle," yes.

Okay. Do you qui bble with "navigate vi ewpoints" and "change camera angle"?
A. No, no. That would be navi gating a vi ewpoint.
Q. So, would the answer to my question be "yes,"

Mr. Dezmelyk?
A. Yes. I see that.
Q. Thank you.

And you say you've actually played these games?
A. Well, you're putting up here a different game than the one l played and a different one than I am writing about in my report. Mine was the W i version, because I'mtesting on the Wi platform
Q. Now, you heard Mr. Ikeda's testimony, di dn't you, when he was discussing the Wi version of the Mario game?
A. Yes.
Q. Did you hear himsay that you can use the Wi to move a ball-like character using the accel erometer?
A. I don't recall that exact line of testimony.

Do you remember I keda saying he thought that a game designer could use the out put of the accel erometer to change the player's point of view?
A. Again, $I$ don't remember his exact statement. I don't have any reason to doubt it if you are representing that that's his statement.
Q. Well, I don't want to ask you to take my word for it.

You were here during his testimony, weren't you?
A. Yes, but $I$ don't recall every word the guy says. Q. Okay. He was asked a question: Could the game designer choose to use the out put of the accel erometer to move objects on the screen?

He answered: Well, just the way you can move Mario, if you had a ball-like character, you could move that ball in the same way.

Question: Could a game designer choose to use the out put of the accel erometer to change the player's point of view on the screen?

And he answered: I think so.
Does that refresh your recollection?
A. Yes.
Q. And do you -- were you here for the testimony of

Mr. John Pederson, who is the seni or director of technical services at Ni ntendo?
A. No, I was not.
Q. Okay. Di d you read his testimony?
A. No.
"No"? Let me make sure you've seen it.
He was asked the question: The $W$ i Remote controller -- we've heard quite a bit about -- has an accel erometer in it, correct?

He answered: Correct.
And that accel erometer in the $W$ i Remote provi des three separate si gnal s representing accel er ation al ong three different axes; isn't that correct?

He answers: Correct.
And you would agree with me, woul dn't you, that the use of those three outputs is up to the game desi gner?

You don't di sagree with Mr. Pederson, do you? A. No.
Q. So, you agree with him and Mr. I keda that the designer of the game can choose how to use the user i nputs and out puts from the controller?
A. Yes. A game designer certai $n l y$ can choose how they want to use the information that comes from the
controller, sure.
And the outputs from the controller are capable of bei ng used to change a player's point of view? A. Well, they're capable to be used by the game designer the way he wants; and so, a game designer could do that, yes.
Q. Okay. And could it be capable of being used by the game desi gner to move objects?
A. Yes.
Q. Okay. Thank you, sir.

THE COURT: Counsel, we're going to go ahead and take a break.
l'।l ask you to be back, Iadies and gentlemen, at ten of.
(The jury exits the courtroom 3: $33 \mathrm{p} . \mathrm{m}$ )
(Di scussion off the record)
THE COURT: All right. We're in recess until ten of.
(Recess, 3: 33 p.m to 3: 48 p.m)
(Open court, all parties present, jury
present.)
THE COURT: Counsel ?
MR. CAWLEY: Thank you, your Honor.
BY MR. CAWLEY:
Q. Mr. Dezmel yk, you indi cated in your expert report
in this case, di dn't you, that $N i$ ntendo has been producing multiple i nput member controllers since 1985, correct?
A. Yes.
Q. And that's because in 1985, that was the year that the Ni ntendo Entertai nment System came out, correct?
A. I believe so, yes.
Q. And it's your opi ni on, isn't it, that the controller for the Ni ntendo Entertai nment Systemis a multiple i nput member controller?
A. Yes, l beli eve so.

MR. CAWLEY: May I approach, your Honor?
THE COURT: You may.
BY MR. CAWLEY:
Q. Do you recognize what I've handed you,

Mr. Dezmel yk?
A. Yes, I do.
Q. What is that?
A. It's the -- it's an early Ni ntendo controller from that vi ntage.
Q. And that's the one you say is a multiple input member controller, correct?
A. Yes.
Q. Could you hold it up so the jury can see the face of it?
A. Sure (compl yi ng).

Walk us across what's on the face of it just sort of starting from left to right.
A. Well, it's got a direction pad, a couple of little buttons in the midde, then a couple of little buttons on the right.

Okay. Show us where the different i nput members are.
A. Well, it's got an input el ement or member over here (i ndi cating).
Q. That's the D-pad, correct?
A. D-pad, right. And then you can al so make i nputs on the buttons.
Q. A total of four buttons, right?
A. Right. There are four buttons on the front of this device.
Q. And is each button a separate i nput?
A. It is. A button is an input in this case, yes.
Q. Okay. All right. And you say that this controller has multiple i nput members because each button is a separate i nput.
A. Well -- yes. Using the definition of a finger bei ng -- a finger-activatable el ement.
Q. Uh-huh.
A. These are i nput el ements, yes.

So, how many input members does that controller
A. Well, again there's -- one, two, three, four -five, four of which are buttons and one which is a D- pad.
Q. Thank you, sir.

Now let's talk about the adequacy of the 1996 specification, whether there was enough in the 1996 specification to support or provide disclosure for the 2000 application that Mr. Armstrong filed that became a patent that's involved in this lawsuit, the ' 700 patent.

Now, when you began your testimny about that subject, you went through the ' 96 application; and you testified -- and I'm not trying to put words in your mouth here, but maybe we can work toget her to get whatever words you're confortable with. You testified that in your reading the ' 96 application, you believed that the inventions or ideas that Mr. Armstrong di sclosed was a single input member that could control 6 degrees of freedom ls that accurate?
A. Well, I think it's important that we have a very clear sort of definition of what that is because, first off, there is a number of things described in that application. Some of them are not relevant to this It it gation.
Q. Okay. And you said that this morning.
A. There are al so a lot of descriptions of the particular details of the idea, like some sheet connections, some ways of mounting proportional buttons, and so forth. Not all of those are necessarily rel at ed to this, either. So, I don't want to appear that l'm characterizing his invention in some ki nd of very si mple, narrow- mi nded way. I'm saying that rel ative to the claims we're tal king about here, there are certain key aspects of that i nvention. The scope of the i nvention - it would be i nappropriate to try to look at every i dea that was in the whol e application. We would be here for days.
Q. There's a lot of ideas in that application.
A. Right. And most of them are not rel ated to the situation at hand.
Q. But for the ones that are rel ated to the claims in this case, you told us, di dn't you, that it was your opi ni on -- and what you told the jury was that they all rel ate to a single member i nput controlling 6 degrees of freedom
A. Well, I thi nk my point is that the di sclosure only shows that Mr . Armstrong had i n his possession at that time an i nvention whi ch had a single i nput member. And remember, now, the word "i nput member" is being used
very specifically to rel ate to how it's used in the claim An input member $t$ hat is hand-hol dable the way he describes it in the application, that is used in that way.
Q. Okay. So, what you just said and what you testified about earlier this morning is your summary of what the pertinent parts of the disclosure disclose, correct?
A. Well, agai n, l mean, it's not -- l'mlooking at the totality of it when I rendered my opinion. But one way to describe the -- probably one of the most important aspects of that invention is a single handle which you can put your hand on and operate in 6 degrees of freedom and that that is the core or central part of the invention that is clai med in this particular --
Q. Okay. That's your summary of what you bel ieve you read in the disclosure as a central part of the i nvention?
A. Yes. That would be my summary.
Q. Okay. Those are your words, right?
A. Right.

Okay. So, we' ve got your summary.
Then you al so drew some pictures. Let's take a look at one.

That's not one. When I was asking for the
picture, forgive me, but l said it looked like a bar of soap with some red spiders on it; so, l guess that's the one.

And this, again $n$, is generally what? And l'm not so much interested in what the particular claims or -- but you had a bunch of pictures that were sort of like this with some slight variations. Tell us in general what this is.
A. Well, in general, what l'm showing here is a memory aid for the limitations in the claim that is, one way - - if we look at the claim in the full scope of these claims as they were asserted, this picture hel ps us remember the different elements in the claim Q. Okay. So, this is something you've created to hel p people remember different things that are in the claim correct?
A. That's correct.
Q. Okay. Now, you understand, don't you, that in deter ming whet her the cl ai ms are adequately y supported by the ' 96 di closure, the jury is not supposed to compare the words of the claims to your summary, are they?
A. Well, the test is the claim the limitations of the claim to the known -- the know edge of the inventor -hi s invention or his idea at the time.
Q. Okay. Well, here's my question.
A. Neither one of those -
Q. Maybe l can repeat it for you if it wasn't clear. Are you telling the jury that in deci ding whet her this patent is entitled to the ' 96 date, that they' re supposed to compare the words of the claims in the patents to your summary?
A. No.
Q. Okay.
A. They knew --
Q. Are you telling the jury that they're supposed to compare the words of the cl ai ms to your picture?
A. No.
Q. Okay.
A. The pi cture is just a summary --
Q. Isn't it true, sir - excuse me. Let me just ask you questions, if l may. I think this will go a lot faster for all of us.

Isn't it true, sir, that what the jury is supposed to do is compare the words of the claims to what's actually in the disclosure?
A. Yes.
Q. Okay.
A. They are supposed to --
Q. All right.
A. -- compare the claim scope, what's described by the claim the limitations of the claim to --
Q. All right.
A. -- the specification.
Q. So, for example, if you've shown these pictures -and those red things aren't supposed to be spiders, are they? They' re supposed to be thumbsticks, right?
A. No. They are the reminder that we have a claim el ament which is an input element structured to activate the two bidirectional proportional sensors, that phrase. It's a reminder that we're looking for that idea, that concept within the original application -- as di closed in the original application --
Q. All right.
A. -- as a part of the whole invention.
Q. Okay. But you've sort of drawn it like a thumbstick, haven't you?
A. Yes.
Q. But, in fact, thumbstick isn't in the asserted claims of the patents, is it?
A. No.
Q. Okay. So, it wouldn't be right to go look for that word, for example.
A. Well, the task is not to go look for a word. The task is to look to see what is the inventor -- did he
have the whole idea at the time. It's not like we're looking for the words in the claim
Q. Well, obviously we're not looking for the word "yes" or "no" or "of" or "thumb" or something. But you agree with me the word "thumbstick" doesn't appear in any of the clai ms of the asserted patent?
A. Right. It does not.
Q. Okay. Thi ngs like "member" appears or "el ement" or "sensor," right?
A. Right .
Q. And you would al so agree with me, woul dn't you, that it's not proper to compare, or to look for and compare, what's disclosed in the claims to the Ni ntendo products, at least for purposes of this exercise of determing whet her or not the disclosure in ' 96 was adequat $e$ ?
A. I actually disagree with you there in that the infringement contentions and the testimony put before us show a scope that's asserted.
Q. So, you think that when the jury is trying to decide this issue and trying to decide whet her what Mr. Armstrong put in his claims for the ' 700 patent -whet her that's adequatel y described in the ' 96 application, you think they shoul d look at Ni ntendo's products to do that?
A. No. That's not what I said.

Okay. Well, thank you, sir.
Let's take a look at some clai ms, then; and l'd like to now - i nstead of comparing the clai ms to your summary or to pictures, l'd like to go through and compare some of them to what's actually in the ' 96 disclosure.

Do you have a copy of the ' 700 patent in front of you, sir?
A. Sure. l beli eve so.
Q. Si nce l thi nk you started with claim 19, why don't we start with claim 19. Cl ai m 19 requi res a hand- oper at ed controller, doesn't it?
A. Yes, it does. I thi nk, though, l'd like to ask kind of a question of you first to clarify it. You've asked me to look at the ' 700 patent.
Q. Yes, sir.
A. Are you asking me questions rel ated to the description disclosure and specification of that patent or the filed application?
Q. No. I'm sorry. Thank you for the clarification. No, sir. I am going to ask you some questions about that, but mostly $l^{\prime}$ m going to be asking you about the di scl osure in the '96 application.
A. Right. So --
Q. There may be some times when l al so want to ask you about the application that was filed for the ' 700 patent, but l'Il try and make that clear when I'm doing that.
A. Thank you.

Okay. So, you have the patent in front of you.
You have clai m 19, right?
A. Yes.
Q. Okay it, a hand-operated controller, right?
A. Yes.
Q. Okay. Let's take a look at SIide 6 . Some of these pictures are probably becoming pretty darn familiar to us by now; so, l'm not going to take a whole lot of time on them But you recognize this as claim 3 fromthe application, don't you?
A. Yes.
Q. And it shows a ball, right?
A. Yep.
Q. And it shows a collet or collar around the ball, right?
A. That's correct.
Q. And can't the user use the ball with his hands?
A. Yes.
Q. And can't the user move the collet with his or her
hands?
A. Yes.

MR. CAWLEY: Now let's go to SI ide 7.
BY MR. CAWLEY:
Q. This slide, which at the top is from the ' 96 application and from the bottomis fromthe ' 700 application - I et's start up top.

In the ' 96 application it says: This i nvention rel ates to structuring for sheet supported sensors and associated circuitry i n hand-operated graphic i mage controllers.

## Correct?

A. Yes.
Q. And the ' 700 application, that disclosure says: This i nvention rel ates to hand i nput controllers.

## Correct?

A. Yes.
Q. Now, claim 19 al so requi res, a little bit further on, structure allowing hand inputs rotating a platform on t wo mutually per pendi cul ar axes, correct?
A. That's correct.
Q. Now, I notice - we might just note this, that this structure specifically says "allowing hand inputs," doesn't it?
A. Yes.
Q. And the pictures, just to skip ahead a little, the pi ctures that you drew for the second element and third el ement, those red things on your pi cture -- remember? A. Yes.
Q. The second and third element don't say anything about the hand, do they?
A. No, they don't.
Q. Okay.
A. Not in the text.
Q. Yes, sir. But let's go back to this part of claim 19 that requires a structure allowing hand inputs rotating a platform on two mutually perpendicular axes. And take a look at SIide 8, which is Figure 28. This is from the ' 96 di scl osure, correct?
A. Right .
Q. And this thing that we' ve col ored bl ue at the top, that's a flat surface that's designed for someone to grab and hol d, correct?
A. That's correct. It's at the top of the handle. Q. And to rotate it on the pitch and roll axes, correct?
A. Right. You can see the pi vots down bel ow in that as sembly.
Q. And are those perpendicul ar axes?
A. Yes, they are.
Q. All right, sir.

A little further on, claim 19 requires a controller including tactile feedback means for provi di ng vi bration, right?
A. Yes.
Q. If we go to the next slide, which will show us

Fi gure 21 of the application, we've seen this a number of times. You're familiar with it, aren't you?
A. Yes, I am
Q. And the quote in that figure says: Another preferred embodi ment. Such a device has additional benefits including space to place active tactile feedback in a still small handle, et cetera.

Do you see that?
A. Yes, I do.
Q. By the way, if I forgot to mention it - and l'm trying to move al ong at a reasonable clip here - - all of these slides have references to the specific page number in the juror notebooks where these things appear, if any of the jurors want to flip to that page for any reason.

The next thing that $I$ want to direct your attention to inclaim 19 requi res a second el ement movable on two perpendicul ar axes.

Let's take a look at Figure 22 from the 1996 application. Do you see that figure?
A. Yes.

Have you studi ed this?
A. Yes. I'mfamiliar with that.
Q. Are you familiar with how it works?
A. Yes.
Q. I want to redraw it a little bit so that it will be a little clearer and we can make it actually move. So, I et me go to the next slide. This is a 3-D rendering of that drawing. Wbul d you take a mi nute to look at it? I know we' ve gi ven you these slides i n advance; so, you may have had a chance to look at this.

Does this appear to be a 3-D rendering of
Fi gure 22?
A. Right. It's ani mated to show the operation of some of the mechanism
Q. And you agree that this is how this embodi ment would work, at least parts of it, if it was actually built, right?
A. Right.
Q. Now, you see this light purple rod, correct?
A. Yes.
Q. And when that $I$ ight purple rod moves up and down, the dark purple rocker in the front rocks back and forth, correct?
A. Right.
Q. And when the light purple rod swings fromside to side, the dark purple rocker in the back rocks back and forth, right?
A. Ri ght. I can see that.
Q. And these rockers, when they do rock, push down on these domes underneath them correct?
A. Yes.
Q. And each of these domes activates a uni directional sensor, correct?
A. Right.
Q. Okay, sir.

If we go to the next slide, this shows Figure 45 from the 1996 application, correct?
A. Yes.
Q. And you're aware, aren't you, that this is a bi-directional sensor?
A. Right.
Q. So that instead of just going one direction, this thing can rock up or down agai nst that potentiometer that it's engaged with, right?
A. Ri ght. As the El ement 336 rocks back and forth, the Gear 754 woul d rotate 752 ; and the Potentiometer 750 would change its position.
Q. Yes, sir. And, in fact, the ' 96 application that Mr. Armstrong filed said that you could replace the
uni di rectional sensors on Figure 22 with these bi-directional sensors, correct?
A. That's correct.
Q. Okay. Thank you.

The next little bit of claim 19 requires a third el ement movable on two mutually perpendicular axes; is that right?
A. Yes. That's the next claimelement in line, the third el ement section.
Q. Let's take a look at the next slide. This is another 3-D rendering of that same Figure 22 from the 96 application, correct?
A. Yes.
Q. Now, what moves these dark purple rockers in the controller?
A. I believe there's a kind of a block that comes down from the plate above it inside.
Q. Okay. So, there's a plate above these, correct?
A. Right.
Q. And there is an engagement point that is connected to that plate above that engages the top of these two rockers. Fair?
A. Right.
Q. And you see these red things are supposed to represent those engagement points, right?
A. Right. They are two parts inside the structure.

And when the light platform moves, this light purple platform moves, the engagement points fixed to the plate above cause the rockers to rock back and forth, correct?
A. Right. We can see it in ani mation here.

MR. CAWLEY: Let's go to the next slide, 14-- oh, wait a mi nute. I ski pped something. I'm sorry. Let's stay on this slide and go ahead in the ani mation.

Are we ready to rock? Okay. Thank you.
BY MR. CAWLEY:
Q. The middle shaft here and the small rod that activates the ot her two rockers al so moves back and forth and side to side al ong with the bottom platform correct?
A. That's correct.
Q. Okay. Now let's look at something el se that claim 19 requires, a plurality of finger-depressi ble buttons. Do you see that?
A. Yes.
Q. Okay. Let's take a look at SI ide 15.

Do you recognize this?
A. Yes, I do.
Q. It's fromthe '96 application, correct?
A. That's correct.

And there are two buttons here, right --
A. That's correct.
Q. -- col ored blue?
A. Yes.
Q. And SI i de 16, you see that this is al so some quotes
from the ' 96 appl ication?
A. (Pausi ng.)
Q. Yes, sir?
A. Yeah. I'mjust taking a second to read it.
Q. Sure.
A. I can't read it as fast as you can perhaps.
Q. Well, I et's just work through them toget her. At the top, on page 39, it says: Al so shown here are two buttons, 378, for operation by the user's fingers.
A. Okay.
Q. Right ?
A. Yep.
Q. And on page 40 it says: Additionally, auxili ary secondary buttons - sel ect, fire buttons, special function keys, et cetera - are readily i nt egrated. See that?
A. Yep. I see that.
Q. And then next on page 48 -- oh, where shall we start -- (reading) sensors wi thin a 6-degree-of-freedom
device such as for my co-pending application and for finger-acti vated buttons whi ch may be located el sewhere wi thin the device.
A. Right.
Q. See that?
(Reading) Such as on either the handle housing, the base housing, et cetera.

Do you see that?
A. Ri ght. I see that.
Q. Now I want to give you that al ert that 1 tal ked to you about before. Let's go ahead -- rather than to have to go back and repeat it - and look at something si milar in the ' 700 patent. Do you see that, likewi se, the ' 700 patent says: Al so shown here are two buttons, 378, for operation by the user's fingers?
A. Yep.
Q. And from the ' 700 patent: Auxiliary secondary i nput buttons.

See that?
A. Yes.
Q. And from the ' 700 patent, a 3-D device such as for my co-pendi ng application, et cetera, and for finger acti vated buttons, correct?
A. Yes, I see that.
Q. In addition to the pl urality -- and just remind us.
"Pl ural ity" means what?
A. Well, a plurality is more than one.
Q. Mbre than one. So --
A. Two is a plurality.
Q. -- disclosure of two buttons satisfies the disclosure at least as far as a plurality is concerned, correct?
A. It satisfies the disclosure of a button alone. It doesn't necessarily satisfy the disclosure overall.
Q. Well, my question is about --
A. But in this case it does disclose two buttons, yes.
Q. Okay. And that's a plurality, right?
A. Yes.
Q. Okay. If we go on to claim 19, it next requi res a button sensor, correct?
A. Yeah. We're reading backwards up fromthe bottom-- or we're reading down from "buttons." I underst and.
Q. Yep.
A. We've switched applications, but we're now reading down.
Q. Right.
A. I just wanted to make sure l was following.
Q. Yes, sir.
A. Thank you.
Q. We're reading back claim 19; and we've got to find support for a button sensor inclaim19, right?

So, let's look back now. We're back in the 96 appl ication. Does this figure show button sensors? A. Yes, it does.

All right, sir. They are associated with the dark bl ue buttons, col ored light bl ue, right?
A. Yes.
Q. These
are the the button sensors (indi cating), accurate?
A. Yes.
Q. Wbuldn't be much point in a button without a button sensor, would there?
A. No.
Q. Okay. Let's now turn our attention to the ' 700 patent and go over some of the ot her clai ms. I think that has taken us through claim 19. Let's look at cl ai m 22. Maybe you know it well enough, or if you want to turn to it.

Cl ai m 22 requi res a button sensor that out puts data proportionate to depression of one of said buttons, correct?
A. Well, if you could give me a second because --
Q. Yes, sir.
A. That's 19, dependent claim 22, the proportional
button claim Yeah, l'mfamiliar with it.
Okay. In the next slide we've got a couple of quotes, one from the ' 96 application and one from the ' 700 patent. Do you see that?
A. Yes.

And the first one says: The invention can be constructed with sensors as simple as el ectrical contacts or more sophisticated proportional and pressure-sensitive variable output sensors, or the like.

## Isn't that accurate?

A. Yes.
Q. And the ' 700 application, likewise, it says the same thing, doesn't it?
A. Ri ght. I mean, the text here is obvi ously accurate. It's the --
Q. Yes, sir.
A. The text is there.
Q. Let's take a look at Slide 20. This is sort of the same setup. From the ' 96 application, Mr. Armstrong di sclosed, did he not, Fi gure 42 whi ch shows a compound membrane sensor sheet 700 containing a compound sensor 702 which, in essence, is a commonly known si mple switched membrane sensor on top of $m y$ novel proportional membrane sensor.

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                                    Do you see that?
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1
2
3
4
5
6
A. Right. I do think it's appropriate to note here that this illustration is - and this di scussion of this proportional sensor invention is a different topic. Q. Well --
A. It's not.
Q. I understand that's what you say, sir; but my question is -- have you read these disclosures bef ore? A. Yes, I have.
Q. And you see that the same one is in the ' 700 as is in the ' 96 ?
A. Yes.
Q. Cl ai m 23 requi res, among ot her things, a rotary potentiometer, correct?
A. That's correct.
Q. And on SIide 21 .- we already saw this picture, I think, earlier. This is in the '96 application, correct?
A. Ri ght.
Q. And that is a rotary potentiometer, is it not?
A. That's correct.
Q. And, in fact, we don't have much doubt about it because this line 29 through 30 of page 46 describes it as a rotary encoder or potentiometer, don't they?
A. Ri ght.
Q. And on this slide - and this now is the ' 700
application itself -- it al so describes a rotary encoder or potentiometer, correct?
A. That's correct.
Q. Now going back up to claim 16 for a mute. Cl ai m 16 requires two sheets on two pl anes, correct? A. Yes.
Q. Let's take a look at Figure 29 from the 1996 application. And this has obviously been col ored, since, as you told us, you don't file patent applications in color. So, this has been colored. Is this thing on the top a sheet?
A. Yes. This is --
Q. This part on the bottomis the sheet, correct?
A. Right. And there's kind of a sandwi ch of sheets in this particular illustration, the way it's peel ed apart at the end.
Q. Okay. And these you understand for purposes of the drawing -- these parts of the sandwi ch have been opened up so that we can see what they look like; but, in fact, they are meant to be sandwi ched together like in the corner over there, correct?
A. Ri ght. They would be assembled and, you know, gl ued or together into one composite.
Q. Sure. And here (indicating), this is what l'm going to call a "pl us" or "cross-shaped stack" of
sheets, isn't it?
A. Yes.
Q. And this (indicating) here, which sort of looks
like frog lily pads or something -- these are a
ci rcular-shaped stack of sheets that have been opened up
to let us see that they are, in fact, made of different
sheets, correct?
A. Ri ght. That's correct.
Q. All right, sir. Claim 16 al so requires a button
depressible by a single finger, right?
A. Yes. I don't have the claimlanguage memorized;
but --
Q. I'msory.
A. -- yes, l believe so.
Q. Wbuld you like to consult it?
A. No. That's fine.
Q. Okay.
A. You know that pretty well.
Q. Let's go to the next slide. Does this from the
1996 application disclose a button depressi ble by a
single finger?
A. Yes, it does. There's two buttons here. One or
the other could be a button depressible by a single
fi nger.
Q. Either one of them?
A. Either one.

Could be depressible by a single finger, correct? A. Yes.
Q. Okay. And the next slide, these are some quot at i ons -- agai $n$ both from the ' 96 application and, to save time, fromthe ' 700 patent application -- about finger-depressi ble buttons. And we read from' 96 that there are two finger sel ect swi tches, right?
A. Right.
Q. Is that referring back to those buttons we just saw?
A. I'm not sure that that exact 146 is the same one, but it's a button.
Q. Okay. And the same thing, two finger sel ect switches, was di scl osed in the ' 700 application. Fair? A. Ri ght.
Q. And you see, while we're at it - al hough l'Il get to this later -- that the two finger select switches are described both in the ' 96 application and in the ' 700 application as secondary i nput members?
A. Yes. I see that.
Q. Okay. Now, claim 16 that we're tal king about here actually begi ns with the terma "3-D graphics controller," correct?
A. Correct.
Q. And in SI ide 26 we see that Mr. Armstrong -although in ' 96 he often used the phrase " 6 degrees of freedom" he did talk about "3-D graphic image controllers," correct?
A. Correct.

And, in fact, he described that his invention, his structure enabling the use of this common break-over technol ogy in a 6-degree-of-freedom controller is a hi ghl y novel and useful improvement in the field of 3-D graphic i mage controllers.

## Correct?

A. Right. That's a statement from his application in 1996.
Q. And he said the same thing in the year 2000 in the ' 700 appl ication ; isn't that right?
A. Well, except that he changed "6-degree-of-freedom' to " $3-\mathrm{D}$ " - -
Q. Okay.
A. -- in the line where --
Q. Right.
A. -- it says "in a $3-\mathrm{D}$ controller," "in a

6- degree- of - freedom controller."
Q. But in terms of his tal king about 3-D graphic image controllers in both ' 96 and 2000, those thi ngs are in the I anguage we just read, aren't they?
A. Yes.

Okay. Let's take a look at claim 14, if you'd like to look at it or if you just want to take my word for it.

I' m going to ask you: Cl ai m 14 requires six axes of control, correct?
A. Yes.
Q. If we look at the next slide, first from the '96 application, this quote says: I deally a pair of uni di rectional sensors are used to describe each axis, thus 6 pair of uni directional sensors, 12 i ndi vi dual sensors, can describe 6 degrees of freedom

Was that in Mr. Armstrong's '96 application?
A. Yes. That's a statement from the application.
Q. Was it in his application for the ' 700 patent?
A. Yes, it is.
Q. And when I ask you if it is in the ' 700 patent, you understand that l'm referring to the ' 700 patent specification?
A. Well, yes. I understand that. Just for clarity, the citation there is to the ' 700 patent; but the ' 700 patent specification from that application from 2000 is printed in the patent.
Q. Okay.
A. So, the same document --
Q. Right.
A. -- appears in both places.
Q. But technically the exercise as it relates to the ' 700 patent is in comparing the claims to the specification. You understand that?
A. Right.
Q. So, the questions l've asked you about what's in the ' 700 patent, you understand that l've been showing you quotations out of the patent specification.
A. Right.
Q. Which should be the same as what's in the application.
A. Right .
Q. But since the exercise is a comparison of the claim to the specification for purposes of the ' 700 patent, just want to make sure I haven't created any confusion. You're with me, right?
A. Ri ght. I understand that. I am rel ying on your representation -- and 1 believe it's correct -- that the ' 700 patent has the same specification -- these parts of it -- as -- not in the claims but this part of it, the rel evant part, as it did in 2000. I believe that's the case.
Q. Okay. We were tal king about claim 14 and thi ngs that it requires. One of the things that claim 14
requires is a sheet connected to at least ei ght sensors, correct?
A. Yes.
Q. Okay. Let's go back and take a look at the '96 application and the ' 700 specification. We see here the description that Mr . Armstrong gave back in ' 96 that Figure 2 shows a side view of a 6-degree-of-freedom two-pl anar device using one circuit board per plane for support of sensors and el ectronics with ei ght sensors l ocated on a pl ane i n the base.

Do you see that, sir?
A. Yes.
Q. And essentially, except for the change of "6-degree-of-freedom' to "3-D," the same thing is di sclosed in the ' 700 specification, correct?
A. Ri ght. Agai n, we see that "6-degree-of-freedom' has been changed to "3-D." But ot her than that, the remai nder of it is the same sentence.
Q. Okay. Let's take a look at some ot her parts of the '96 application now. On SIide 29, you see here that this is a di scussion of the rotatable collet. Ri ght? A. Yes.
Q. And you described this, I think, as being like a collar around the trackball, correct?
A. That's correct.
Q. I guess we've al so heard it referred to as a "collet," a "collar," a "cup"; but all the same thing we're tal ki ng about, right?
A. Right. Those words all describe that same shape that's the el ement that's directly around the ball.

Okay. And Mr. Armstrong i nformed readers of his 96 application, di dn't he, that the rotatable collet can serve as an additional secondary i nput member for whatever use may be desired by a software desi gner or end user. Di d you read that, sir?
A. Yes.
Q. And he di sclosed the same thing when he got the specification for his ' 700 patent, didn't he?
A. Yes, he did.
Q. You testified at some length this morning about your opi ni on about the requi rement in the ' 96 application of a single i nput member movale in 6 degrees of freedom correct?
A. Yes.
Q. A single input member. Let's take a look at Slide 30. We' ve seen this before. We've seen the col ored portion before. But do you remember this part of the 1996 application --
A. Yes, I do.
Q. -- where it says that the rotatable collet can
serve as an additional secondary input member? That's what the Ianguage we just read is referring to, isn't it?
A. Right.
Q. And turning on the same issue to the ' 700 patent, same figure, same language, correct?
A. That's correct.
Q. Both of them in which Mr. Armstrong made clear that the collet can serve as a secondary input member, correct?
A. That's correct.
Q. Let's take a look at some more language from the 96 application on this issue of a single input member. In ' 96 Mr . Armstrong disclosed to the Patent Office the embodi ment shown in Figure 8 is al so shown with two thumb select switches and two finger select switches, secondary input members.
Do you see that?
A. Yes, I do.
Q. And do you see that in the ' 700 patent specification, he tells us that the embodi ment shown in Figure 8 is al so shown with two thumb select switches and two finger select switches, which he tells us are secondary i nput members.
Do you see that, sir?
A. Yes, I do see that.

And if we go to the next slide, you see that in the di scussi on of the single i nput members, Mr. Armstrong tol d the Patent Of fice in his '96 application that the auxiliary secondary i nput buttons -- select, fire buttons, special function keys, et cetera-- are readily i nt egrated. Do you see that?
A. Yes, I do see that.

And not to read it over agai $n$; but he said the same thing in his ' 700 specification, didn't he?
A. Yes.
Q. Let's take a look at another section of the application and of the ' 700 patent. Here Mr. Armstrong was tal king about how the i nput member can be operable. Now, you understand what he's referring to here as the input member, don't you, the joystick-type controller?
A. I do. But your quotation there, in the clipping of it, l think, is mischaracterizing it.
Q. The clipping of it mischaracterizes it?
A. Yeah. There's more to it - you need the context around it to understand what that sentence is tal king about.
Q. Well, let me ask you what $I$ have up here first. I'msure if the context is hel pful, your counsel will ask you about it. But this is sort of my opportunity to focus our attention narrowly on the point that l want to make here.

Doesn't he tell us here that the joystick-type controller may be mani pulable or operable in up to 6 degrees of freedom?
A. Yes. But in the context, that doesn't mean what you're implying it means.
Q. Well - -
A. What it means is it's comparing --
Q. Don't you understand, sir, that "up to" generally means you can have at least that many but you may have I ess?
A. In general. But you have to read the sentence before it and the sentence after it, which is the context of the comparison bet ween the joystick handle and the trackball handle. And I think just taking that quote out without the sentences around it makes a suggestion that is really incorrect.
Q. Are you familiar with this quotation fromthe specification of the ' 700 patent where Mr. Armstrong informs us that the controllers in preferred embodi ments, while not restricted or required to be full 6 degrees of freedom-- do you see that?
A. Yes.
Q. Do you understand that he's telling us there that you can have a controller that's up to 6 degrees of freedom but it's not required to have that many? A. Yes. That's present in the ' 700 specification from 2000.

And let's look at SIide 35 . Do you see here in the ' 96 application where Mr. Armstrong told the Patent Office: This structuring al so offers tremendous advantage in many non 6 DOF applications.
Do you see that, sir?
A. Yes, I do.
Q. And do you see that the same I anguage is contai ned in the specification of the ' 700 patent?
A. Yes, I do.
Q. Now, let's go back to Figure 2 of the patent.

MR. CAWLEY: Or maybe it's on a slide and we just need to pull it up.

BY MR. CAWLEY:
Q. You remember this, don't you?
A. Yes, I do.
Q. And this Figure 2 in the ' 96 application -- this is actually Figure 2 from the patent but that's -- let me do it backwards.

This is Figure 2 fromthe ' 700 patent,
A. That's correct.

But this same figure is al so Figure 2 in the ' 96 application, correct?
A. Yes, it is.
Q. Okay. And you have tol d the jury that the ' 96 specification does not show multiple i nput members that toget her provide 6 degrees of freedom haven't you? A. I'm not sure that's an exact quote, and I think that may be a mischaracterization of what $I$ said. Q. $\quad I n$ what way?
A. Well, I thi nk we went through this in detail, that there is a 6-degree-of-freedom i nput el ement 12 that moves in a full 6 degrees of freedom and that there is a second collet around it that rotates -- that's a second i nput el ement -- and that it moves back and forth with the ball. And we had lengthy testimony on that. But I thi nk that that would more accurately characterize my description of that than what you --
Q. Okay. And you haven't tal ked to any Ni ntendo engi neers about that?
A. About that?
Q. What you just said --
A. The trackball --
Q. What you just said or this figure.
A. No.
Q. Specifically, have you tal ked to or met Mr. Koshiishi?
A. No. I do not know Mr. Koshi i shi.

Were you in court when Mr. Koshiishi's deposition was played?
A. No, I was not.
Q. Have you read Mr. Koshi ishi's deposition?
A. No, I have not.
Q. Are you aware that Mr. Koshi ishi tal ked about Fi gure 2 of the patent and that the jury heard that testimony
A. No. I di dn't see the testimony; so, I don't know what he tal ked about.
Q. And you're aware that Mr. Koshi ishi, a Ni nt endo engi neer who had this patent figure in front of him stated that if you remove the cup or collet, that you would no longer have a 6-degree-of-freedom controller.

Are you aware of that?
A. No, I'm not aware of that testimony; but it's incorrect.
Q. And are you aware that Mr. Koshi ishi swore under oath in his deposition that if you remove the collet, you would not be able to sense movement on the line or axis and, instead, you would have remai ni ng a

3- degree- of - freedom controller?
A. Well, you're asking me to comment on testimony l haven't seen.
Q. Wbuld you like to see it, sir?
A. If you'd like, if you think it would be hel pful.

MR. CAWLEY: May we play that brief clip of the deposition, your Honor?

THE COURT: It's your time.
MR. CAMLEY: Okay.
BY MR. CAKLEY:
Q. Let's see Mr. Koshiishi's testimony on this subj ect.
(The following testimony was presented by vi deo.)

Question: Figure 2 of the ' 700 patent depicts a cross-section of a game controller that is described by this patent; is that correct?

Answer: Yes.
Question: Now, in the middle of the figure, there is a circle that has been label ed with the number "12"; is that correct?

Answer: Yes.
Question: What is that?
Answer: It's a ball -- sorry. It's a
sphere.
Question: Now, the ball is surrounded by a

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cup-like structure that has been label ed "16"; is that correct?

Answer: Yes.
Question: Can you tell from looking at the figure whether the structure of the game controller allows it to sense the linear movement of the cup?

Answer: Yes.
Question: If you moved the cup fromthe controller depicted in Figure 2, you would not be able to sense movement on three linear axes; is that correct?

Answer: No, you woul dn't.
Question: But if you still had the trackball, you would still have a 3-degree-of-freedom controller because you could still sense rotational movement on three axes; is that correct?

Answer: Yes.
Question: Now, conversely, if you did not remove the cup but you did remove the trackball, then you would still have a 3-degree-of-freedom controller except it would be able to measure linear movement on three axes and not rotational movement on three axes; is that correct?

Answer: Yes.
(Vi deo presentation concl uded.)
Mr. Dezmel yk, were you aware of that
testimony from a Nintendo engi neer before you testified to this jury this morning?
A. No, I wasn't.
Q. All right. Thank you, sir.

MR. CAWLEY: I pass the witness, your Honor.
THE COURT: Counsel ?
MR. PRESTA: Thank you.
REDI RECT EXAM NATI ON OF ROBERT DEZMELYK
BY MR. PRESTA:
Q. Well, Mr. Dezmelyk, did anything that Mr. Cawley just showed you in the 1996 application change your opi ni on in any way about the scope of that application? A. No, not at all.
Q. And can you expl ain to me why?
A. Sure. The test isn't whether we can find snippets of the idea -- that is, a mention of a button here or a part here -- but the entire invention and, more importantly, the full scope of the claim lt may well be that if you interpret that claimto only read on the one handle and its parts, that he can find support for it. But it's when you try to stretch the clai m boundary out to cover ot her ki nds of designs, $t$ hat $t$ hat's what the test of written description is for.

When we go back, can we see the support for the full scope of the cl ai m the cl ai m that's being
charged as the infringement analysis, in other words, the $f u l l$ breadth of $t$ he $c l a i m p$ Do we see $t$ hat when we go back to that original specification? That's the test.
Q. Now, Mr. Cawl ey showed you various different parts of very different areas in that 1996 and ' 700 application, di dn't he?
A. Yes, he did.
Q. And every time he showed you one of those parts, many times it was only a partial picture of the actual controller that was in there, wasn't it?
A. That's correct.
Q. And were you familiar with all the parts that he showed you?
A. Yes. Basically, yes.
Q. And we had actually touched on every one of the ones that he had shown this morning.
A. Right.
Q. And were there any parts that he showed you that weren't actually a part of a 6-degree-of-freedom single i nput member device?
A. No, there were not.
Q. In fact, when you looked at them in isolation, one could al most be misled into bel i eving that, in fact, they were stand-al one devices, right?
A. Right. But those are the parts of that single input controller he was showing.

MR. PRESTA: Let's take a look at plaintiff's exhi bit -- well, it's the 1996 application. It's 306, page 78. That's Defendant's Exhibit 306. BY MR. PRESTA:
Q. Now, Mr. Cawl ey showed you this embodi ment, didn't he, Mr. Dezmelyk?
A. Yes, he did.
Q. And he suggested to you that, in fact, this somehow supported the claimscope that they are reading -- the clai mscope that they are reading to say infringes the Ni ntendo GameCube, right?
A. That's correct.
Q. Now, could we take a look at page 76 of that exhi bit? This is Figure 22. I want to take you back to 20, a couple of pages before it. Do you see that?
A. Yes, I do.
Q. Now, do you have your I aser pointer still?
A. Sure.
Q. Do you actually see in there the pi ece that

Mr. Cawl ey was pointing you to?
A. Well, the vertical shaft, the little pin that's coming out the side is here (indicating). The rockers are down here (indicating). And the little el ement that

4 A. That's correct. is moving it. Q. Okay.
to --
BY MR. PRESTA: your direct testimony?
A. Yes, it is.

BY MR. PRESTA: whi ch is the next page?
that? Thank you.
BY MR. PRESTA: Fi gure 22, right?
catches the top of the rocker is right there (indicating), underneath that part inside the housing.

And that's the part that he animated, isn't it?
Q. And he di dn't show that, in fact, it was all connected up to that single handle, did he?
A. Right. The reason it's moving is the single handle

MR. PRESTA: Now, could l actually go over
Q. Isn't this the embodi ment that we ani mated during

MR. PRESTA: Now if we could take a look over at page 77 of this exhi bit, Figure 21, please.
Q. Now, can you contrast Figure 22 and Figure 21,

MR. PRESTA: Can you do a split screen on
Q. Now, do you see -- this is Figure 21; and this is
A. Yes.

Now, Mr. Cawl ey showed you Figure 22, di dn't he? A. Yes, he did.

To suggest that it had support for somet hing that had multiple joysticks, right?
A. Yes, he did show that.

Do you agree that that provides support for something that has multiple joysticks?
A. No, not at all.
Q. Okay. In fact, isn't this piece in Figure 22 -how does it rel ate up to Figure 21 ?
A. Well, the shaft here (indicating) is inside here (indi cating). This pin that we see (indicating) prot ruding through that little slot we can now see from an end- on vi ew here. There is the pin (indicating). And this plate with the sensors attached to it is here (i ndi cating). Here's the sensors, and there is the pl ate (indi cating).

So, we can see these components that are shown here are actually inside the controller under here (i ndi cating). There's no way you can touch them from outside or move them in any way except by mani pulating that si ngle handle outside.
Q. Di d Mr. Cawl ey show you the fact that that's hooked up to one single 6-degree-of-freedom handle when he
asked you those questions?
A. No, he di d not.
Q. This is just a partial figure, isn't it?

Ri ght. It's a detail of the bottom again, of this -- it's this portion (indicating) of the whole assembly. This is just the bottom The way it's shown here indicates like you've cut -- in essence, cut that part inside the assembly.

So, Figure 22, in your view, is part of Figure 21, just the bottom part, right, for people --
A. Right. It's the bottom of 21.
Q. Okay. Is there any doubt in your mind about that? A. None whatsoever.
Q. Now I'm going to show you a page fromthe specification. And, in fact, the very bottom of that page fromthe 1996 application --

MR. PRESTA: Could you hi ghl ight what it says at the bottom Figure 22 down to the end?

BY MR. PRESTA:
Q. Do you see where it says -- could you read that, pl ease?
A. Sure. (Reading) Figure 22 shows a perspective view of the rocker-arm actuators of the embodi ment of

Fi gures 20 and 21.
Q. So, what is that telling you about that Figure 22
that Mr. Cawl ey put up?
A. Well, it's just a caption for the figure; and it's describing that it's just a view of the bottom of the act uators of Fi gures 20 and 21.
Q. So, the application is actually making perfectly clear that Figure 22 is actually just a pi ece of Fi gures 21 and 20?
A. That's right.

MR. PRESTA: Could we go back and take a look
at Figure 20, please?
BY MR. PRESTA:
Q. And that's what the application tells us; it's a pi ece of that single input member 6-degree-of-freedom device?
A. That's correct.

MR. PRESTA: Could we run that ani mation on
Figure 20?
BY MR. PRESTA:
Q. In fact, we ani mated this one in your earlier testimony. Before we start it, this bottom part right there is the part that Mr. Cawl ey was showing you that would support two joysticks outside that you could touch, in the claim right?
A. Ri ght. That was the part he was showing that he cont ended that supported --
Q. Okay. That's actually the inside of a single i nput nember 6-degree-of-freedom device, isn't it?
A. That's right.
Q. Now let's ani mate it again just so the jury can see what Mr. Cawl ey was showing you. In fact, this is the thing that we showed in your direct exami nation, isn't it?
A. That's right.
Q. And is there any support - and these are the rockers that he was showing you to suggest that somehow that supported the full scope of claim 19, isn't it? A. That's right. That's what he was showing me.
Q. And does that in any way support the scope of claim 19 as Anascape is asserting it agai nst Ni nt endo on the GameCube, the $W$ i Nunchuk, and all the other accused products?
A. No, not at all.
Q. In fact, every single embodi ment in the ' 700 patent and the 1996 applicati on has one common feature, doesn't it?
A. That's correct.
Q. And what common feat ure is that?
A. A single handle that you can operate in 6 degrees of freedom
Q. Now, Mr. Cawl ey al so put up Figure $4-$ and I guess
that ani mation is still running. I think --
MR. PRESTA: Thank you. That will do it.
BY MR. PRESTA:
Now, Mr. Cawl ey al so had up there Figure 28.
MR. PRESTA: Could we take a look at
Fi gure 28 on page 31?
BY MR. PRESTA:
Q. Now, do you recognize what Figure 28 is?
A. Yes, I do.
Q. What is it?
A. Figure 28 is the handle. In other words, it's the very top. You can see the 300 here is the same 300 that's over here. It's the handle for the assembly shown in Figure 20.
Q. So, again, this whole thing -- aml correct that this whole thing is just that cut-off and exploded-up so you can see it?
A. Right. It's the exploded vi ew of the very top.
Q. So, it's still a single input member

6- degree- of-freedom device, just a part of it?
A. Right. Just another part of the same device.

So, is it appropriate to go into -- to see if there is support in an application, to go around and take little pieces here and there without looking at the whole thing and then to suggest that you can put them
toget her in any way you want to create somet hing that's not there?
A. No. That's an incorrect way of looking at it. You have to find the whole idea that the inventor had, not just that you might find a piece here and piece there that you're putting toget her in your own min. The pi eces have to be put toget her by the inventor.
Q. Now, Mr. Cawl ey al so suggested -- he showed you all ki nds of buttons, and he showed you all kinds of places where the disclosure tal ks about buttons as being extra input members. Do you remember that?
A. That's correct.
Q. Do you remember in your direct testimony where we tal ked about buttons?
A. Yes. We did many times.
Q. Can you explain to the jury why just disclosing buttons is, in your view -- whether it's rel evant or irrelevant to the issue of having three input members that can together do 6 degrees of freedom of control ? A. Well, as I said, buttons are the things that you touch with your fingers; but they are not the same as devices that let you input an X and a Y coordinate. They're just buttons and buttons are well-known and there's buttons in all kinds of things -- remote controllers, keyboards, et cetera.
Q. Were there any buttons that he showed you that would, in fact, change your opi ni on on -- that there is no support in the 1996 or 2000 application for the cl ai ms as drafted by Mr. Armstrong in 2002?
A. No.
Q. Did Mr. Cawl ey bring up the Chang di sclai mer in your cross?
A. I don't recall. I don't think so.

Okay. And, agai $n$, what was the significance of Chang?
A. Well, Chang, again, says don't use separate input el ements, have all the 6 degrees of freedom coming from one. He's saying you can use multiple input handles in Chang. He has --
Q. What did Mr. Armstrong say about that idea in his application?
A. Mr. Armstrong said it's a bad idea, don't use that. He's saying that his invention is different from Chang. Q. Now, you see Figure 4 here whi ch is -- Mr. Cawley was suggesting discloses somehow -- I' m not sure. What was your testimony about this ball and collet?
A. Well, my testimony was explaining how the ball can be moved in 6 degrees of freedom and to do so you can grab the ball with your fingers the way you might hold a basketball if you picked it up with your fingers and you
can push it back and forth in two directions and up and down and you can al so turn it with your fingers in any direction.

Now, you can al so grab the collet around it and push this (indicating) carriage back and forth or back and forth in this direction (indicating); or because you're hol ding the collet, you can lift it up and push it down.

However, l think, as correctly noted by the Japanese gentleman that testified, if you take the collet off, you cannot move it -- you can only move it in two and a half directions. Wthout the collet you can still move it this way (indicating) because you grab the ball like a basketball and push it back and forth. You can move it back and forth, again because you're hol ding the ball and you can push it back and forth. And you can push it down because you can push down on the ball.

But as he correctly observed -- and he's a very smart engi neer - - if you try to pick it up, the collet is what keeps the ball from coming out of the mechanism So, just the way people know -- if you've ever taken a trackball apart, the ball can come out sometimes. If you took that collar of f of there and you lifted up on the ball, the ball's going to come out of
the mechanism So, you can't get three linear directions; you can only get two and a half. You can go side to side, forward and backward, and down. But as the gentleman testified, you can't get the third one coming up.

Does that have any rel evance to the issue of support in the 1996 application?
A. None whatsoever.

MR. PRESTA: Could we ani mate that Figure 4, please, just briefly?

BY MR. PRESTA:
Q. Now, we ran this Figure 4 ani mation during your di rect, di dn't we?
A. Yes.
Q. And does the ani mation accurately reflect how this thing works?
A. Yes, it does.
Q. Wthout taking it apart in some hypothetical way that they asked --
A. Right, without taking it apart.
Q. Now, those two thi ngs move together, don't they?
A. Yes, they do.

MR. PRESTA: Coul d you run it one more time?
BY MR. PRESTA:
Q. Agai $n$, could you expl ai $n$ what's going on there?
A. Right. Well, again, the ball is rotating in each of the 6 degrees of freedom and then it's being pushed back and forth, up and down, and left to right. Q. Does that resemble at all the GameCube controller or the W i Nunchuk and the W i Remote or the W i Cl assic that's accused in this case?
A. No, not at all.

MR. PRESTA: Could we go to SI i de 11, pl ease? BY MR. PRESTA:
Q. Now, di d you read in the - di d you hear when

Mr. Cawl ey showed you that there was a mention of capacitive-type sensors in Mr. Armstrong's 1996 appl i cation?
A. Yes. I remember that.
Q. Now, when you have a generic description of capacitive-type sensors like that, did that teach to you the use of an accel eromet er?
A. No.
Q. Do you recall Mr. Armstrong testifying in this case about whet her an accel erometer was disclosed in his 1996 application?
A. I don't specifically remember one way or another what he said.
Q. Now, agai n, goi ng back to this figure, Mr. Cawl ey was suggesting that there's -- somehow the ball is not a

6- degree-of-freedom device in his cross-exam nation?
A. He may have suggested that. He's wrong.
Q. And how do you know that?
A. Well, because this ball can be rotated in any roll, pitch, or yaw and it can move back and forth in $X$ and $Y$ and it can move up and down in the $Z$ direction, the -
Q. Does the specification tell you that, the part that he di dn't hi ghl ight?
A. Yes, he says -- l'll just point at it -- the trackball member may be interpretable on all six axes as previ ously described.
Q. Wbuld you be surprised to hear that $M r$. Armstrong testified there was no accel erometer in the 1996 application?
A. No, I wouldn't be.
Q. Have you seen any in there?
A. No.
Q. Now, there was another issue about -- Mr. Cawley showed you that, in fact, in the 1996 application it mentioned 3-D graphics. Are you aware of that?
A. That's right. It did.
Q. Now, in the 1996 appl ication, there was a lot of places where it said "6 DOF," right?
A. Right.
Q. And what does that mean?
A. Well, 6 degrees of freedom We' ve heard that term a 1 ot.
Q. Well, in the 2000 application that term no Ionger read "6 degrees of freedom" did it?
A. Ri ght. It had been changed to "3-D."
Q. Okay. Now -- but you understand that the court has rul ed that even though Mr. Armstrong changed "6-degree- of-freedom' to "3-D, " that the court has ruled that the term"3-D" is still to be interpreted as 6 degrees of freedom?
A. Yes.
Q. So, it is not appropriate to consider infringement as to whet her -- whet her or not the graphics are three-di mensional graphics, right?
A. Right .
Q. You have to determine whether something is moving in 6 degrees of freedom
A. That's correct.
Q. Because you have to use the court's claim construction when you're doing infringement anal ysis, right?
A. Right.
Q. Now, there were some issues about the accel erometer. There was some testimony that was put up about Mr. I keda's testi mony about the accel erometer. Do
you remember that?
A. Yes. I saw that.
Q. Now, Mr. Cawl ey -- coul d you read Mr. I keda's testimony to your -- or let me just ask you if you heard Mr. I keda's testimony. He said that there are capacitors that sense movement in the $X$ axis, there are capacitors that sense movement in the $Y$ axis, and there are capacitors that sense movement -- there are capacitors for the $Z$ axis, as well. Ri ght?
A. Ri ght.
Q. Do you agree with that?
A. There are -- it's part of the same capacitors, yes. There is the capacitance for the $X$ axis, the capacitance for the $Y$ axis, and the capacitance for the $Z$ axis. But the central element on all of those capacitors is one el ement which is what is connected to the amplifiers and the rest of the circuitry.
Q. Now, Mr. Ikeda di dn't say that those were all separate capacitors, did he?
A. No.
Q. And Mr. I keda's testimony, is that consistent with what you drew in front of the jury, your explanation of how the accel eromet er worked?
A. Yes, it is.
Q. Is there anything about $M r$. I keda's testimony that

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is -- that contradicts your position that, in fact, the accel erometer used in the $W$ i Remote is a single-axis accel er omet er?
A. I think you mean a single --
Q. I'm sorry, a single - let me clarify that.

Because it is a three-axis accel erometer?
A. Right.
Q. There is no di spute about that?
A. Right.
Q. Thank you.

My question is: Is there anything that
Mr. I keda said inconsistent with your position that the accel erometer in the $W$ i Remote is a single sensor that senses three axes?
A. No, there isn't.
Q. In fact, is it consistent with the drawing that you di d on the sheet?
A. Yes, it is.
Q. And, agai $n$, $t$ he reason for that is that he didn't say those were all different capacitors?
A. Right.
Q. And you expl ai ned to the jury that there was one differential capacitor in there --
A. That's correct.
Q. $\quad-\quad$ i $n$ my understandi ng.

And that confirms with the data sheet, right?
Q. From the manufacturer of the accel erometer?
A. That's correct.

THE COURT: Anything el se, counsel ?
MR. PRESTA: If you can indul ge me for one second, your Honor.

No further questions, your Honor.
MR. CAKLEY: I just have 30 seconds' worth.
THE COURT: All right.
MR. CAWLEY: That will be a reli ef to ever ybody.

## RECROSS-EXAM NATI ON OF ROBERT DEZMELYK

BY MR. CAWLEY:
Q. You were just asked about Mr. I keda's testimony, but I want to show you again the testimony on the previ ous page to what Ni ntendo's lawyer just showed you.

Mr. Ikeda was asked -- first, he was asked about the X axis.

And then: Yes, sir. That's my next question. Isn't it true that a different set of capacitors is used to detect accel eration on the X [sic] axis?

And he answered: Yes, different capacitors and probes for the $Y$ axis.

Do you remember him saying that, sir?
A. Well, to correct you, he di dn't say that. You just read it i ncorrectly. You said --
Q. You're right.
A. -- probes - " $X$ axis."

So, let me - I want it to be clear.
A. That's not what you said --
Q. You're right. I did read it wrong; so, l've got to start at the top.

The question 1 asked was: Mr. Ikeda, isn't it true that one set of capacitors in the accel erometer is used to detect accel eration on the $X$ axis?

And he answered: The $X$ axis can be measured, as well; but at the same time, measurement can take pl ace al ong the $Y$ and $Z$ axes.

And then my question: Yes, sir. That's my next question. Isn't it true that a different set of capacitors is used to detect accel eration on the $Y$ axis?

And his answer: Yes, different capacitors and probes for the $Y$ axis.

Do you remember hearing that testimony, sir?
A. I'm aware of his testimony. l heard it, yes.
Q. Thank you.

MR. CAWLEY: No more questions, your Honor.
THE COURT: Pass the witness?

l'Il ask you to be here at that time. Again, please remember my instructions. Don't discuss the case with anybody, and don't let anybody di scuss it with you. You're excused at this time.
(The jury exits the courtroom 5:03 p.m )
THE COURT: You may step down, sir.
THE W TNESS: Thank you, your Honor.
THE COURT: Okay. For pl anni ng purposes, where are we, then, on defendant's case?

MR. GUNTHER: I apol ogize, your Honor. The next witness?

THE COURT: Right. I n ot her words, how many more wi tnesses do we have? I had heard some talk last week that he might or might not be the last witness. I di $d n^{\prime} t$ bel i eve $t$ hat but...

MR. GUNTHER: We have -- you were correct not to bel ieve it, your Honor, in this limited sense. We have a deposition from a Sony witness by the name of Susan Pani co that will take about 15 mi nutes or so to play. We i ntend to play that, and then we i nt end to rest.

THE COURT: And you're not bringing Mr. Ugone - or Dr. Ugone, the damages expert?

MR. GUNTHER: That's correct.
THE COURT: Okay. And just to be very sure,
that's not based on some ruling of mine, is it? Or you're not thinking it is, is it?

MR. GUNTHER: Your Honor, as much as l'd like to maybe add in an angle there, l can't do it.

THE COURT: I don't recall ruling on him
MR. GUNTHER: You di d not.
THE COURT: Okay. All right. And I've heard nothing back from you on that other gentleman ot her than the - $\quad$ that $I$ had said certain exhi bits or demonstratives couldn't be used. So - - all right.

Then, I take it that you're likely to -- are you $t$ hi nking of recalling --

MR. CAWLEY: Yes, your Honor.
THE COURT: -- for i nval i dity?
MR. CAWLEY: We're going to recall Professor Howe.

THE COURT: Okay.
MR. CAWLEY: I woul d esti mate that his di rect on rebuttal will probably be 45 mi nutes to an hour, no more.

THE COURT: Okay.
MR. GUNTHER: Could I ask one question on
that, your Honor?
THE COURT: Sure.
MR. GUNTHER: There has been a statement by


