UNITED STATES DISTRICT COURT

CENTRAL DISTRICT OF CALIFORNIA

SOUTHERN DIVISION AT SANTA ANA

HONORABLE JAMES V. SELNA, JUDGE PRESIDING

CERTIFIED TRANSCRIPT

MR TECHNOLOGIES, GMBH, Plaintiff and Counterclaim Defendant, vs. WESTERN DIGITAL TECHNOLOGIES, INC., Defendant and Counterclaim Plaintiff.	)	SACV NO. 8:22-cv-01599-JVS-DVM **DAY 7, VOLUME II**

REPORTER'S TRANSCRIPT OF PROCEEDINGS

JURY TRIAL

SANTA ANA, CALIFORNIA

THURSDAY, JULY 25, 2024

1:29 P.M.

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02:51:06 in the art would've combined Victora and Hagadorn in the way that Dr. Victora asserted?
A I don't think it would've happened, and clearly it didn't, so...
02:51:20 Q And can you just briefly summarize the parts of the claims that the Victora and Hagadorn combination don't meet?
A Yes. For the '864, basically they don't meet claims 1C, IE, 1F, 1G and 1H. And then for the Claims 10 and 11, the dependent patents, they also don't meet these same
02:51:50 criteria.
Q And so they don't meet -- that combination doesn't meet any of the limitations related to the nucleation host, for example, right?
A Correct.
02:52:00 Q And the same goes for the '997 claims?
A Yes. For the '997 claims, it also doesn't meet any of the claims that are associated with the nucleation host.
Q All right. Let's talk briefly about Berger for Hagadorn. Can you just briefly summarize your opinions on
02:52:16 that?
A Again, the patent examiner who examined these patents for 12 years was aware of Berger and Hagadorn. There was no modification -- or no motivation to modify Berger. As I mentioned, Hagadorn doesn't qualify as prior art, and
02:52:34 Dr. Victora's imaginary contribution -- or combinations

relied on hindsight.
Q And what was Berger's objective?
A Berger was clearly trying to emulate tilted media, which, as I mentioned, could not be practically made at the time.
Q Did Berger meet that objective?
A He did. So the media that he discusses in the patent behaves like tilted media, but it was able to be fabricated.
Q And how did Berger meet that objective?
A So Berger put at soft magnetic layer on top of a hard storage layer.
Q Any reason anyone would want to add layers to Berger?
A No, there's no reason. Again, it's a soft magnetic layer on top and it meets the objectives, so there would be no motivation to add --
Q And what would happen if you did?
A Actually, the performance would get worse, so the signal-to-noise would go down and thermal stability would also decrease.
Q Any other reason why a person skilled in the art wouldn't have added one or more layers to Berger?
A So, again, here's -- in his text, in the Berger text, mentioning what I just said, but again, there's really no motivation at all to be adding more layers to this once you already have a soft layer on top.

02:54:09 Q Is there other evidence supporting the fact that people thought that the bilayer was the best you could do?
A Yes. Again, the conventional wisdom at the time, and shown here again, in the Dobin and Richter paper, was that this hard soft combination two layers had optimal performance.
Q And these guys were your employers, right?
A Yes, they were.
Q Now, Dr. Victora, as with his Victora papers, tries to
02:54:43 combine Hagadorn with Berger. What's your opinion on that?
A Again, for the same reasons that I gave before, I do not view Hagadorn to be qualified as prior art.
Q Can you just briefly describe again the field of endeavor?
02:55:06 A Sure. The field of endeavor is perpendicular magnetic recording media. The Hagadorn reference is decades old and in a completely different field.
Q All right. And so the -- can you summarize the parts of the claims that the Berger and Hagadorn combination don't
02:55:27 meet?
A Similar to the Victora-Hagadorn combination wanted, they don't meet the claims related to the nucleation host on the '864 patient, either Claim 1 or of the dependents.
Q So the same missing limitation as the Victora and
02:55:46 Hagadorn combination?

02:55:47 A Correct.
Q Let's turn to the Li reference.
Did you know Dr. Li?
A Yes, I knew Dr. Li and all the other coinventors. They
02:56:03 were on my team at Seagate.
Q And how did you know them?
A Well, yeah, they're on my team --
Q Okay.
A -- at Seagate.
02:56:09 Q Do you know whether the Li invention ever got adopted?
A No, the Li invention was not adopted.
Q And in all the papers that we've seen, including from
Western Digital and other publications, do people cite him
as being the guy who invented modern PMR media in the same
02:56:29 way they credit Dr. Seuss?
A Not to my knowledge. I haven't seen that.
Q What path did Seagate follow?
A Seagate followed the path that Dr. Seuss put forward in
his invention.
02:56:43 MR. CHANG: All right. Let's see why that might
be.
(The document was published in open court.)
BY MR. CHANG:
Q Can you give us a brief overview of what the Li patent
02:56:52 actually discloses?

02:56:53 A Yes. Very clearly, it states that the anisotropy field decreases towards the bottom of the recording media. It also says that the hard storage layer needs to be on top closest to the write head.

02:57:11 Q Is that in every embodiment?

A Every embodiment.

Q And how does that compare -- oh, excuse me.

And how does that compare to Dr. Seuss' invention?

A It's upside down. Goes in the wrong direction.

02:57:26 So Dr. Li is talking about a decreasing HK towards the bottom of the stack, whereas Dr. Seuss speaks of an increasing anisotropy constant towards the hard storage layer on the bottom of the stack.

Q What were Li's objectives?

02:57:46 A There were -- basically to reduce the head media spacing to minimize that, and to make sure that you could match the HK gradient with your field -- or match the field gradient with the HK gradient.

Q And did Li meet those objectives?

02:58:05 A He did.

Q Okay. Let's talk about the first one.

A Okay. So the first one is -- there we go. So this in conventional media where he describes that with a spacing between the bottom of the writer and the top of the media, he gave an example of that being 6 nanometers.

02:58:27 Q And what was the HMS for conventional media?
A So the HMS is a concept where you go to the middle of the media thickness and then add the write head spacing -- write head to media spacing to that middle of the thickness
02:58:43 of the conventional layer.
Q And what was the HMS at -- in this example?
A So this example that he gave with the 6-nanometer write head to media spacing and a 200-nanometer media thickness, it comes out to 16 nanometers.
02:59:01 Q And what about using his -- what he actually disclosed has his invention? What was the HMS value?
A So it was -- you want to decrease HMS because it would be better for reading and writing purposes. And what Li's invention was putting the hard storage layer on top and --
02:59:28 Q So what was that value -- the HMS value?
A If you these thinner layers on top so that they're switching incoherently, the HMS value was giving by 6 nanometers of that head to the top of the disk spacing and then half of 6, so a total of 8.5 nanometers.
02:59:50 Q And so that was -- how would you characterize that improvement in terms of the reduction of head media spacing, which was one of Li's core objectives?
A It was a huge reduction. Almost a factor or two.
Q Now, what would happen if you tried Dr. Victora's
03:00:07 modification?

A So Li completely teaches away from this. It's countered at what's in the claims in the patents, the teaching in the patent. So if you did this with the -- again, the numbers that were used in the example, Dr. Victora's HMS would be 23.5 nanometers. Again, a substantial increase away from Li's HMS, more than a factor or two.

Q And so would someone who's implementing Li, starting with Li have even thought of trying Dr. Victora's imaginary modification?

A No. It's completely contrary to what's taught in the patent.

Q Did Li meet his second objective of matching the gradients?

A Yes. So it's the head field would reduce as it goes through the media. Li wanted the HK to be decreasing as well.

Q And so the write-field gradient is the gray triangle background; is that right?

A Correct. So the boxes, as we've been using, are the HK in this case, value for the different layers. And the gray background is the representation of the head field.

Q And so what Li teaches is that those bars should be within the gray triangle?

A Correct.

CERTIFICATE

I hereby certify that pursuant to Section 753, Title 28, United States Code, the foregoing is a true and correct transcript of the stenographically reported proceedings held in the above-entitled matter and that the transcript page format is in conformance with the regulations of the Judicial Conference of the United States.

Date: July 26, 2024

/s/DEBORAH D. PARKER
DEBORAH D. PARKER, OFFICIAL REPORTER