UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

MAGIC LEAP, INC.
Petitioner,

v.

PERCEPT TECHNOLOGIES INC.
Patent Owner.

Patent No. 9,010,929

Inter Partes Review No. IPR2023-00494

SUPPLEMENTAL DECLARATION OF DR. JOSEPH J. LAVIOLA JR.

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Petitioner's Exhibit List

Exhibit Description	Exhibit #
U.S. Patent No. 9,010,929 to Lewis ("the '929 Patent")	EX-1001
Prosecution History of U.S. Patent No. 9,010,929	EX-1002
Declaration of Dr. Joseph J. LaViola Jr. in Support of Petition for *Inter Partes* Review of U.S. Patent No. 9,010,929	EX-1003
Curriculum Vitae and Litigation History for Dr. Joseph J. LaViola Jr.	EX-1004
Canadian Patent Application No. CA 2,362,895 to Mann ("Mann '895")	EX-1005
U.S. Patent Application Publication No. 2005/0281440A1 to Pemer ("Pemer")	EX-1006
U.S. Patent No. 7,278,734 to Jannard ("Jannard")	EX-1007
Patent Owner's Opening Claim Construction brief in co-pending litigation No. 1:22-cv-0025-RGA	EX-1008
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Exhibit Description	Exhibit #
(Prentice-Hall, Inc. 4th ed. 2002)	
Claim Construction Order in co-pending litigation No. 1:22-cv-0025-RGA	EX-1015
Supplemental Declaration of Dr. Joseph J. LaViola Jr. in Support of Petition for *Inter Partes* Review of U.S. Patent No. 9,010,929	EX-1016
Excerpts from WEBSTER'S THIRD NEW INTERNATIONAL DICTIONARY OF THE ENGLISH LANGUAGE, UNABRIDGED (Merriam-Webster Inc. 2002)	EX-1017
Excerpts from THE AMERICAN HERITAGE DICTIONARY OF THE ENGLISH LANGUAGE (Houghton Mifflin Company 4th ed. 2006)	EX-1018

I, Joseph J. LaViola Jr., make this declaration in connection with the proceeding identified above.

I. INTRODUCTION

1. I have been retained by counsel for Magic Leap, Inc. ("Petitioner" or "Magic Leap") in connection with the proceeding identified above. I submit this supplemental declaration in support of Magic Leap's Petition for *Inter Partes* Review of United States Patent No. 9,010,929 ("Petition"). I understand that Percept Technologies Inc. ("Patent Owner") states that it is the owner of U.S. Patent No. 9,010,929 (EX-1001, "the '929 Patent").

2. I submitted a declaration (EX-1003) dated January 19, 2023, in connection with Magic Leap's Petition. That declaration included my opinions regarding how a person of ordinary skill in the art ("POSITA") would have understood the '929 Patent at the time of invention, and my opinions regarding whether the prior art references used in the asserted grounds of the Petition disclose elements of the claims challenged in that petition. I incorporate by reference my earlier declaration in its entirety.

3. I understand that the Petition challenged claims 1-11, 15, 17, and 22 of the '929 Patent. I understand further that, after the Petition was filed, Patent Owner disclaimed claims 7, 9, 10, and 15. I understand further that the Patent Trial and Appeal Board ("Board") issued a decision on institution (Paper No. 10,

"DI") that instituted trial for the remaining challenged claims: 1-6, 8, 11, 17, and 22. I understand that, after the Board instituted trial, Patent Owner filed a Patent Owner's Response ("Response") in this proceeding (Paper No. 12).

4. I have been asked to prepare a supplemental opinion in connection with the Response. Generally, I have been asked to assess how a POSITA would understand the plain and ordinary meaning of the claim term "the eye sensor activating the circuitry responsive to eye motion of a user" (the "eye sensor limitation"), which is recited in all remaining challenged claims, and to further assess whether the prior art references disclose limitations of the remaining challenged claims (including under the plain and ordinary meaning of the eye sensor limitation) in view of the Response.

5. I am being paid $450 an hour for my work on this matter. My compensation is not dependent on the outcome of this *inter partes* review and in no way affects the substance of my statements in this declaration.

6. I reside in Oviedo, Florida, USA.

II. QUALIFICATIONS

7. I provided details of my qualifications, and a copy of my CV (EX-1004), in connection with my first declaration (EX-1003). For conciseness, I will not repeat them here.

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III. MATERIALS REVIEWED AND CONSIDERED

8. In performing my analysis and preparing this supplemental declaration, I reviewed the Petition and the cited exhibits, including the '929 Patent and its prosecution history; the Response; and the Board's decision on institution. I also consulted additional references regarding the plain and ordinary meaning of claim terms (EX-1017, EX-1018.) In addition to the above exhibits and other documents, my opinions herein are based upon my personal knowledge, professional judgment, education, and experience gained through my years as a computer scientist, professor, and consultant.

IV. LEGAL UNDERSTANDING

A. My Understanding of Claim Construction

9. I have been advised and understand that claim construction is a matter of law and that the final claim construction will ultimately be determined by the Board. I have been advised and understand that patent claims are construed from the perspective of one of ordinary skill in the art at the time the claimed invention was made. I have further been advised and understand that, in an *inter partes* review, patent claims are to be construed according to the methodology set forth in *Phillips v. AWH Corporation*, 415 F.3d 1303 (Fed. Cir. 2005). In performing my analysis and rendering my opinions, I have interpreted claim terms by giving them the ordinary and customary meaning they would have to the POSITA reading the '929 patent as of October 7, 2005, and in light of its specification and file history.

B. A Person Having Ordinary Skill in the Art

10. I have been advised and understand that a POSITA is presumed to be aware of all pertinent art, thinks along conventional wisdom in the art, and is a person of ordinary creativity, not an automaton. With this understanding, a POSITA at the time of the invention claimed in the '929 patent would have been a person holding a B.S. degree and a Masters degree in Computer Science, Computer Engineering, Electrical Engineering, Physics, or an equivalent field, as well as one to two years of academic or industry experience in wearable electronic devices or comparable industry experience. This is the same definition of the POSITA that I provided in my previous declaration. (EX-1003 ¶ 21.)

C. My Understanding of Obviousness

11. I have been advised and understand that a claimed invention is unpatentable if the differences between the invention and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a POSITA to which the subject matter pertains. This means that even if all of the requirements of the claim cannot be found in a single prior art reference that would anticipate the claim, the claim can still be invalid.

12. It is my understanding that obviousness is a question of law based on underlying factual findings: (1) the scope and content of the prior art; (2) the differences between the claims and the prior art; (3) the level of skill in the art; and

(4) objective considerations of non-obviousness. I understand that for a single reference or a combination of references to render the claimed invention obvious, a POSITA must have been able to arrive at the claims by altering or combining the applied references.

13. I also understand that prior art references can be combined under several different circumstances. For example, it is my understanding that one such circumstance is when a proposed combination of prior art references results in a system that represents a predictable variation, which is achieved using prior art elements according to their established functions.

14. I also understand that when considering the obviousness of a patent claim, one should consider whether a teaching, suggestion, or motivation to combine the references exists so as to avoid impermissibly applying hindsight when considering the prior art. I understand this test should not be rigidly applied, but that the test can be important to avoiding such hindsight.

V. OVERVIEW OF THE '929 PATENT

15. I provided an overview of the '929 Patent and its prosecution history in my first declaration. (EX-1003 ¶¶ 26-30.) For conciseness, I will not repeat the details here.

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VI. CLAIM INTERPRETATION

16. I have been asked to discuss the plain and ordinary meaning of the claim term, "the eye sensor activating the circuitry responsive to eye motion of a user," which is common to all of the remaining challenged claims. I will refer to this limitation herein as the "eye sensor limitation." Below I provide my opinions on that plain and ordinary meaning. Throughout this declaration, I have applied that plain and ordinary meaning, as well as the plain and ordinary meaning for all other claim terms.

17. Having reviewed the Response, I understand the Response to dispute whether the prior art combination of Mann '895 and Pemer ("Mann/Pemer") meets the eye sensor limitation of the challenged claims. I do not understand the Response to dispute whether Mann/Pemer meets the remaining limitations of the challenged claims.

18. I understand the Response to take the position that the eye sensor limitation is to be given its plain and ordinary meaning for purposes of this proceeding. In particular, I understand the Response to take the position that the phrase "responsive to" in the eye sensor limitation is to be given its plain and ordinary meaning. This is because, as the Response states, the eye sensor limitation is "readily understandable and does not require further interpretation"; the patentee "did not provide the term any other or exceptional meaning"; and

"there is no clear reason to depart from this plain and ordinary meaning of this disputed term." (Response at 8.) I agree with those characterizations of the eye sensor limitation.

19. In the Response, the Patent Owner provides what it considers to be the plain and ordinary meaning of "responsive to." For example, according to the Patent Owner's definition, the plain and ordinary meaning of "responsive to" requires:

- "temporal immediacy and action, cause and effect" (Response at 8, 20);
- that someone or something "reacts or adapts appropriately or in a specific way when influenced or affected by a particular stimulus, situation, or input" (*id.* at 8);
- that "mere *reliance on* eye motion" is not "sufficient to demonstrate activation 'responsive to'" (i*d.* at 18 (emphasis in original));
- "a reaction or adaptation to something in a way that acknowledges that thing's presence or influence" (*id.* at 21); and
- that responsiveness implies "a dynamic relationship in which one thing changes, adjusts, or responds to changing conditions or stimuli, typically external factors" (*id.* at 21).

20. I am not aware of any evidentiary support that Patent Owner has provided to support its definition of "responsive to." For example, I am not aware

of any documentary evidence, expert declaration, or testimony provided by Patent Owner to support its position in the Response.

21. I do not believe that the Response accurately represents the plain and ordinary meaning of the eye sensor limitation to a POSITA after reading the '929 patent. I believe Patent Owner's proposed meaning of the eye sensor limitation, and in particular the phrase "responsive to," is too narrow to capture the eye sensor limitation's plain and ordinary meaning to the POSITA.

22. The Response cites to two passages from the '929 Patent specification: at 3:23-25 and 3:40-43. (Response at 7.) But these passages do not support any of Patent Owner's above narrowing of the eye sensor limitation. The first passage merely provides that "[e]ye movement . . . sensors could be used to activate and control the binocular glasses." (EX-1001 at 3:23-25.) There is nothing in this description that would compel a narrowing construction. For example, the passage does not disclose, let alone limit, in what ways the eye movement sensors are responsive to eye movement. The passage does not even disclose that these eye movement sensors are what performs the activating, as recited in the eye sensor limitation—only that they could be "used" somehow in the process.

23. The second passage states that "[i]t would also be possible to detect facial and eye movements (squinting, for example), as well as changes in the pupil

and iris." (*Id.* at 3:40-43.) Once again, nothing in this sentence would demand that "responsive to" be limited as Patent Owner urges. For example, as above, the sentence does not describe or limit how an eye sensor would be responsive to facial and eye movements such as squinting, or changes in the pupil and iris. To the contrary, the patent indicates that its methods for sensing and controlling digital media could be implemented "in a variety of ways." (*Id.* at 3:36-38.)

24. It is my view that the POSITA would not have applied any specialized meaning to "responsive to." Instead, the POSITA would recognize this term to have a widely understood meaning. To the extent it is helpful to clarify that meaning: an eye sensor that is "responsive to" a thing, such as eye motion, responds to that thing. Whether or not the eye sensor is responsive to the eye motion does not depend in any way on the length of time between the eye motion and the eye sensor's response.

25. I consulted two general purpose dictionaries contemporary with the '929 Patent as to the commonly understood meaning of "responsive to:" *Webster's Third New International Dictionary of the English Language Unabridged* (2002) ("Webster's Dictionary," EX-1017); and *The American Heritage Dictionary of the English Language, Fourth Edition* (2006) (the "Heritage Dictionary," EX-1018).

26. The phrase "responsive to" does not appear in either dictionary. However, both Webster's Dictionary and the Heritage Dictionary define the word

"responsive." (EX-1017 at 1935; EX-1018 at 1486.) I believe the definitions provided in the Heritage Dictionary to be consistent with the definitions provided in Webster's Dictionary. I discuss the definitions from Heritage Dictionary here as representative dictionary definitions. However, my opinion below would apply analogously to the definitions in Webster's Dictionary.

27. The Heritage Dictionary provides three definitions for "responsive":

> 1. Answering or replying; responding.
>
> 2. Readily reacting to suggestions, influences, appeals, or efforts; *a responsive student*.
>
> 3. Containing or using responses: *responsive reading; responsive liturgy*.
>
> (EX-1018 at 1486.)

28. The three definitions provided in the Heritage Dictionary are not equally pertinent to the meaning of "responsive to" as it relates to the '929 Patent.

29. In my view, the second of the three listed definitions ("readily reacting to suggestions, influences, appeals, or efforts") is not pertinent to the '929 Patent and its subject, digital eyewear. A POSITA having reviewed the '929 Patent would thus not understand the plain and ordinary meaning of "responsive to" to be this particular definition.

30. This is for several reasons. First, the second definition describes reacting to suggestions, influences, appeals, or efforts. (EX-1018 at 1486.) The

POSITA would find it unusual to characterize the behavior of a digital eyewear system in this manner. This is because it would be unusual to describe a digital eyewear system, and in particular an eye sensor of such a system, as receiving "suggestions, influences, appeals, or efforts." This definition is more relevant to humans, who regularly react to suggestions, influences, appeals, and efforts, and could be described as "responsive to" those things, than to the operation of digital eyewear or eye sensors. This is consistent with the human example provided in the Heritage Dictionary for this particular definition: "a responsive student." (*Id.*)

31. Second, in the field of the '929 Patent, whether a device reacts "readily" or quickly to eye motion is dependent on context and application. For instance, for providing email or telephone functions (example usages mentioned in the '929 Patent), responding within five seconds could be considered reacting "readily." (EX-1001 at 5:32-39.) But for capturing an image using a digital camera, another example usage, responding within five seconds may be very slow, and not considered reacting "readily" at all. (*Id.* at 3:23-27.) Further, whether something reacts "readily" is subject to a user's individual opinion: for instance, a response that is considered quick by one user may be considered slow by a different user. These factors would make it difficult or impossible to determine, in the context of the '929 Patent, whether or not something reacts "readily."

32. Of the three definitions in the Heritage Dictionary, the first definition ("Answering or replying; responding") is pertinent to digital eyewear, the field of the '929 Patent. (EX-1018 at 1486.) This is because, for example, the POSITA would characterize the behavior of digital eyewear, or components such as eye sensors, as "answering," "replying," or "responding" to input such as eye motion. These are terms that are commonly used by a POSITA in the field of the '929 Patent to describe how digital eyewear components such as sensors handle input and communicate with other components. A POSITA applying the plain and ordinary meaning of "responsive to" in the context of the '929 Patent would thus apply this definition.

33. The dictionary definitions thus support my view of the plain and ordinary meaning of "responsive to." That is, the plain and ordinary meaning of an eye sensor activating circuitry responsive to eye motion is an eye sensor that responds to eye motion by activating circuitry.

34. In my view, the dictionary definitions do not support restricting the plain and ordinary meaning of "responsive to" as suggested by Patent Owner. To the contrary, they indicate that the plain and ordinary meaning of the term is not restricted in such a manner.

35. For example, Patent Owner's suggested definitions of "responsive to" as requiring "a reaction to that other," or as requiring "temporal immediacy and

action, cause and effect," are not found in the dictionary. (Response at 8, 19, 20; EX-1017 at 1935; EX-1018 at 1486.) While the Heritage Dictionary includes a definition that includes "readily reacting," the POSITA would not limit the plain and ordinary meaning of "responsive to," in the context of the '929 Patent, to that particular meaning—or to having any particular temporal requirement—for the reasons described above with respect to that definition. (EX-1018 at 1486.)

36. Patent Owner's suggestion that the definition of "responsive to" includes that someone "reacts or adapts appropriately or in a specific way when influenced or affected by a particular stimulus, situation, or input" is not found in or supported by the dictionary. (Response at 8; EX-1017 at 1935; EX-1018 at 1486.)

37. Patent Owner's suggestion that "mere *reliance* upon eye motion" is not "sufficient to demonstrate activation 'responsive to" is not found in or directly supported by the dictionary. (Response at 18; EX-1017 at 1935; EX-1018 at 1486.) The dictionary does not describe any specific relationship between "reliance" and being "responsive." (EX-1017 at 1935; EX-1018 at 1486.)

38. Patent Owner's suggested definition of "responsive to" as "a reaction or adaptation to something in a way that acknowledges that thing's presence or influence" is not found in or supported by the dictionary. (Response at 21; EX-1017 at 1935; EX-1018 at 1486.)

39. Patent Owner's suggested definition of responsiveness as requiring "a dynamic relationship in which one thing changes, adjusts, or responds to changing conditions or stimuli, typically external factors" is not found in or supported by the dictionary. (Response at 21; EX-1017 at 1935; EX-1018 at 1486.)

VII. OBVIOUSNESS UNDER MANN/PEMER

40. In the Response, Patent Owner takes the position that the challenged claims are not unpatentable under Mann/Pemer because Mann/Pemer does not meet the eye sensor limitation of the claims. (Response at 15-22.) I disagree with Patent Owner's position. In my view, the challenged claims are unpatentable as obvious in view of Mann/Pemer, under any reasonable claim construction, for the reasons set forth in the Petition and in my previous declaration (EX-1003). I will not repeat all of the details here. However, below I will discuss certain additional aspects of Mann/Pemer as applied to the challenged claims.

41. Mann/Pemer meets the eye sensor limitation, as explained in the Petition and in my previous declaration. (Petition at 13-17.) In Mann '895, an iris scanner is used to selectively provide eyeglasses circuit functionality—a "sight license"—to identified licensed users. (*Id.* at 13-15; EX-1005 at 11; EX-1003 ¶ 51.) And Pemer discloses an improvement to iris scanners: instead of using static iris images to identify users, Pemer's iris detector instead stimulates the user's eye motion and uses the unique "edge pattern" that results from the eye motion.

(Petition at 9-10, 16-17; EX-1003 ¶ 53; EX-1006 at [0020]-[0025], [0035], Fig. 3.) The edge pattern is simpler than the iris image, so this enhances the speed and efficiency with which the iris scanner can identify a user. (Petition at 14-17; EX-1003 ¶¶ 53-57; EX-1006 at [0004], [0025], [0059].) The ordinarily skilled artisan would have been motivated to make the combination in order to realize those advantages, and for the additional reasons set forth in the Petition. (Petition at 15-17; EX-1003 ¶¶ 54-58.)

42. Patent Owner argues that Mann/Pemer does not meet the eye sensor limitation when Patent Owner's narrow definition of the eye sensor limitation is applied. (Response at 15-22.) As explained above, it is my view that the Patent Owner's definition of the eye sensor limitation (in particular the limitation "responsive to") is inconsistent with the plain and ordinary meaning of that term to the POSITA; Patent Owner's definition thus does not apply. The POSITA would understand an eye sensor activating circuitry "responsive to" the eye motion to simply mean an eye sensor activating the circuitry in response to the eye motion. The eye sensor of Mann/Pemer meets this limitation by detecting the eye motion, acquiring a unique edge pattern from the eye motion, and determining whether to grant sight permissions to the user once the edge pattern is acquired. (Petition at 13-17; EX-1003 ¶¶ 51-58; EX-1006 at [0026].)

43. To the extent Patent Owner contends that being "responsive to" eye motion excludes eye sensors that also cause the eye motion, it is my view that the claims have no such limitation. (DI at 22-24.) Applying the plain and ordinary meaning of "responsive to," the POSITA would understand that a sensor (*e.g.*, a blood pressure monitoring cuff that compresses the user's artery to stop blood flow) can cause a thing to happen, and also be responsive to that same thing.

44. Patent Owner argues that the eye sensor limitation is not met because the eye sensor activates the sight license responsive to "finding or not finding a match for the edge pattern in a database, and not in response to any eye motion." (Response at 19.) But as described in Pemer, the eye sensor compares the unique edge pattern to the database immediately upon acquiring the edge pattern from the eye motion. (*See, e.g.,* EX-1006 at [0026] ("After an edge pattern has been obtained, the processor 122 can search through the database and attempt to find a reference pattern that matches the *just-acquired* edge pattern.") (emphasis added).) The eye sensor thus compares the edge pattern to the database, and activates the sight license, in response to the specific eye motion that generated the edge pattern.

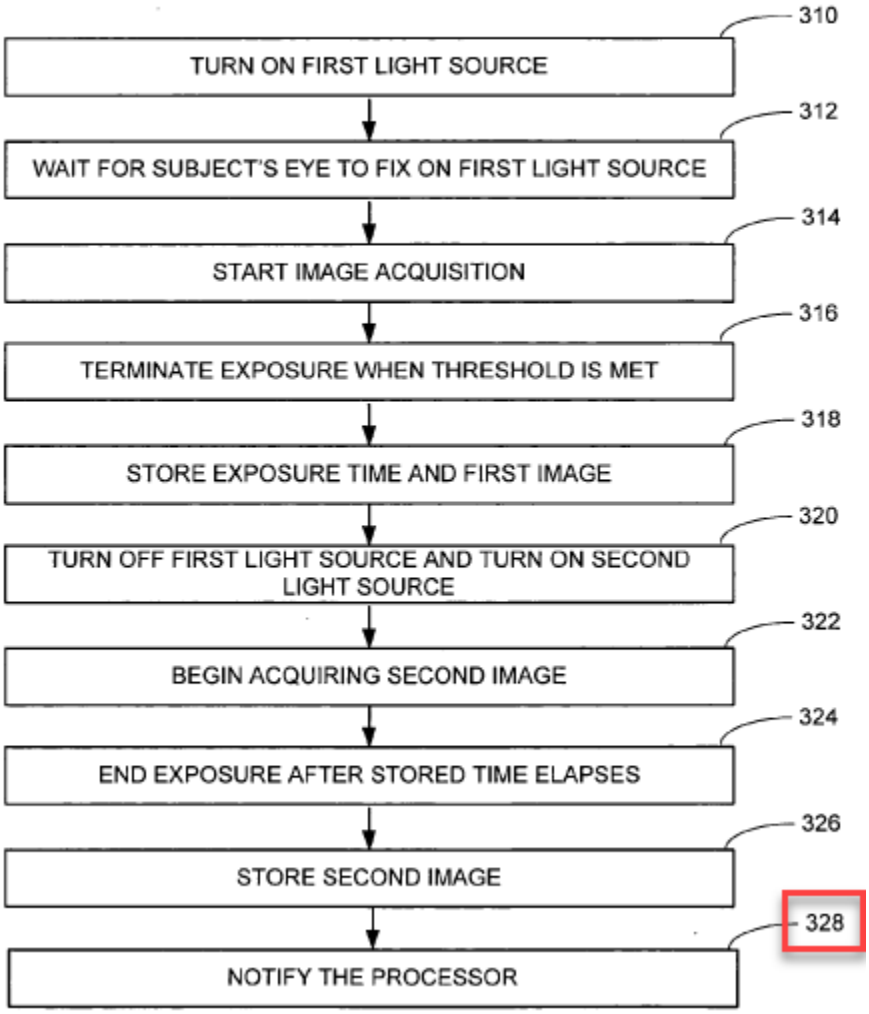
45. To the extent Patent Owner contends that the eye sensor cannot be responsive to events that are prompted by the eye motion, this does not comport with the plain and ordinary meaning of "responsive to." The POSITA would recognize, by plain meaning of "responsive to", that one can be responsive to

multiple events, including multiple events in sequence. For example, in plain usage, a car is responsive to a user stepping on the accelerator pedal, even though the pedal movement has to trigger a sequence of additional events (*e.g.*, turning a pivot, pulling a throttle wire, widening an air intake valve) before the car will accelerate. In plain usage, the car is responsive to the movement of the accelerator pedal, and it is also responsive to the additional events that follow the movement of the accelerator pedal.

46. Patent Owner further argues that the eye sensor limitation is not met by Mann/Pemer because the eye sensor captures images of the eye motion in response to commands from its controller 120, but the images themselves are not captured responsive to the eye motion. (Response at 21.) Patent Owner also argues that activating the sight license happens responsive to comparing the edge pattern to a database; but "not in response to any eye motion," because "[t]here is no *responsive* connection between the eye motion and the granting of privileges." (*Id.* at 22 (emphasis in original).)

47. I disagree with this characterization of Mann/Pemer. In Pemer's iris feature detector, it is the user's eye motion that triggers the comparison of the edge pattern to the database, which in turn activates the sight license. For example, to capture the user's eye motion, controller 120 of the iris feature detector performs a process shown in Fig. 3:

FIG. 3



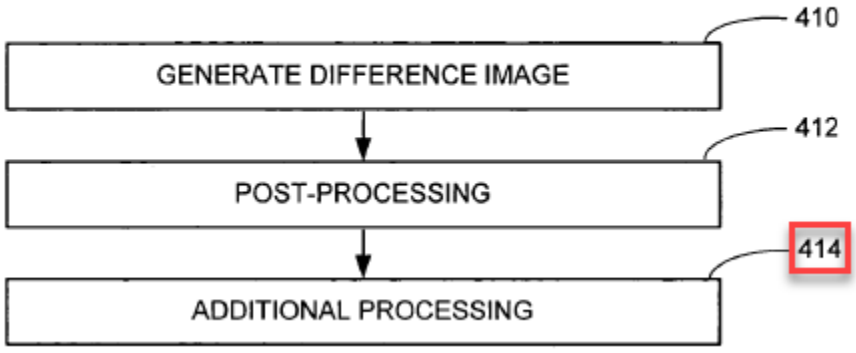
(EX-1006 at [0006], [0029]-[0030], Fig. 3 (annotated).)

48. As shown in Fig. 3, the iris detector's controller proceeds to, *e.g.*, turn on a first light source (310); wait for the eye to move to the first light source (312); after the eye has moved to the first light source, acquire a first image of the eye (314); and store the first image (318). Then, to obtain a second image of the eye, the controller turns off the first light source and turns on a second light source

(320); acquires the second image (322); and stores the second image (326). (*Id.* at [0029]-[0030], Fig. 3.)

49. Once the images of the eye motion have been acquired and stored, the controller notifies (328) the iris detector's processor 122, thus "prompt[ing] the processor to process the first and second images." (*Id.* at [0030], Fig. 3.) The processor, in response to the notification, performs "additional processing" (414) by which the user is "identified or granted certain privileges." (*Id.* at [0030], [0032], [0035], Fig. 4.) For example, as part of the additional processing, the processor generates the edge pattern from the images, searches the database for a reference pattern that matches the edge pattern, and grants the privileges if a match is found. (*Id.* at [0035].) Fig. 4 illustrates the operation of the processor in response to the controller's notification:

FIG. 4



(*Id.* at [0032], [0035], Fig. 4 (annotated).)

50. Thus, contrary to how Patent Owner envisions it, in the combination of Mann '895 and Pemer, there is a *direct responsive connection* between the eye motion and the granting of privileges (i.e., activating the sight license), at least by the eye sensor notifying (328) its processor to search for an edge pattern match in the database once the eye motion has concluded. Moreover, as explained above, the eye sensor "matches the *just-acquired* edge pattern" in the database to grant the privileges, thus reacting quickly to the eye motion to activate the sight license. (*Id.* at [0026] (emphasis added).) This advances a key advantage of Pemer: "faster processing for identification and authentication." (*Id.* at [0025].) The eye sensor limitation is met at least by the above process.

51. Even if Patent Owner's narrow proposed meaning of the eye sensor limitation is applied, it is my view that the challenged claims are still obvious in view of Mann/Pemer.

52. For example, Patent Owner's "temporal immediacy and action, cause and effect" is demonstrated by the relationship described above between the eye motion, and the eye sensor's granting of privileges based on the "just acquired" edge pattern of the eye motion, in the combination of 'Mann 895 and Pemer. For example, as described above, the eye sensor demonstrates temporal immediacy by matching an edge pattern "just acquired" from the eye motion to grant the

privileges, thus acting to activate the sight license. (*Id.* at [0026].) The eye motion is a cause of the effect: the granting of the sight license.

53. Moreover, in my view, there are advantages in usability, security, and privacy for biometric authentication systems, such as Mann/Pemer, to respond immediately to biometric input. For example, when authenticating a user to grant permissions based on biometric data, system usability is improved by avoiding unnecessary delays in extending privileges to legitimate users. In addition, storing sensitive biometric data (such as a user's unique eye motion data) in memory for longer than necessary can increase the risk of the data being compromised, posing unnecessary security and privacy concerns. The Mann/Pemer system would respond immediately to the user's eye motion by granting permissions, as described above, in order to realize these advantages.

54. Patent Owner's other purported requirements are met as well. For example, as described above, the eye sensor "react[s] or answer[s] quickly in relation to" the eye motion (Response at 8, 19) at least by detecting the eye motion, and determining whether or not to grant privileges based on the "just acquired" edge pattern of the eye motion. The eye sensor "reacts or adapts appropriately or in a specific way when influenced or affected by a particular stimulus, situation, or input" (*Id.* at 8) at least by granting or withholding the privileges, as appropriate,

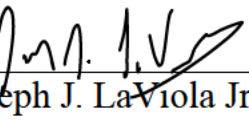
based on the edge pattern of the detected eye motion input. (EX-1006 at [0030]-[0035], Figs. 3-4.)

55. Further, the eye sensor does not merely "rel[y] upon eye motion" (*Id.* at 18), but *responds* specifically to the eye motion by capturing the unique edge pattern from the eye motion, and using that edge pattern to determine whether or not to grant privileges. Similarly, the eye sensor "react[s] or adapt[s]" to the eye motion "in a way that acknowledges that thing's presence or influence" (*Id.* at 21) at least by capturing and processing images of the eye motion, and using the eye motion images to determine whether or not to grant privileges. And the relationship between the eye motion and the granting of privileges is "dynamic" (*Id.* at 21) at least in that the eye sensor detects, and responds to, the movements of the eye as it shifts its fixation from a first light source (312) to a second light source (320). (EX-1006 at [0030]-[0035], Figs. 3-4.)

I declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true, and that these statements were made with knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under section 1001 of Title 18 of the United States Code.

Executed the 18th of January, 2024 in Oviedo, Florida.

Respectfully submitted,



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