

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

FOX FACTORY, INC.,
Petitioner

v.

SRAM, LLC,
Patent Owner

Case IPR2024-00492
Patent No. 7,147,207

**SUPPLEMENTAL DECLARATION OF ALEXANDER SLOCUM, PH.D. IN
SUPPORT OF PETITIONER'S REPLY**

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I, Alexander H. Slocum, declare as follows:

I. INTRODUCTION

1. I am the same Alexander H. Slocum who submitted a Declaration in this case on January 29, 2024, at the request of Finnegan, Henderson, Farabow, Garrett & Dunner LLP (“Finnegan”) on behalf of FOX Factory, Inc. (“FOX” or “Petitioner”) in support of *inter partes* review of the invalidity of claims 1-3, 7, 8, and 10-12 (“the Challenged Claims”) of U.S. Patent No. 7,147,207 (“the ’207 patent”). My qualifications and experience are detailed in my initial Declaration, and in my curriculum vitae, submitted previously. Ex. 1003.

2. I am being compensated for my work on this matter at my standard rate of \$800.00 per hour. My compensation in no way depends on the outcome of this proceeding, the content of my testimony, or any issues involved in or related to this proceeding. In preparing this Supplemental Declaration, I reviewed and considered the ’207 patent, the prosecution history of the ’207 patent, the prior art references I discuss in this Supplemental Declaration, the Patent Owner Response filed by SRAM, LLC (“SRAM” or “Patent Owner”) dated October 31, 2024, the expert declaration of T. Kim Parnell, Ph.D., dated October 31, 2024 (“Parnell Declaration”), and the deposition transcript of Dr. Parnell, dated December 13, 2024. I may consider additional documents and information in forming any supplemental opinions. To the extent I am provided additional documents or

information, I may offer further opinions.

3. I was asked by counsel for FOX to consider and respond to the Patent Owner Response filed by SRAM and the opinions set forth in the Parnell Declaration regarding the alleged validity of the Challenged Claims of the '207 patent. I have reviewed them, and I do not agree with them for the reasons previously stated in my initial Declaration and herein. Any opinions of Dr. Parnell not addressed herein should not be interpreted as my agreement with them. For the sake of brevity, I have not repeated my opinions set forth in the initial Declaration. I incorporate by reference my testimony in the initial Declaration and in my deposition transcript. I maintain all my earlier analysis and continue to hold the opinions expressed in my initial Declaration. This Supplemental Declaration does not replace my prior Declaration and does not cover every topic addressed in my prior Declaration. Both declarations are complementary and should be read in tandem.

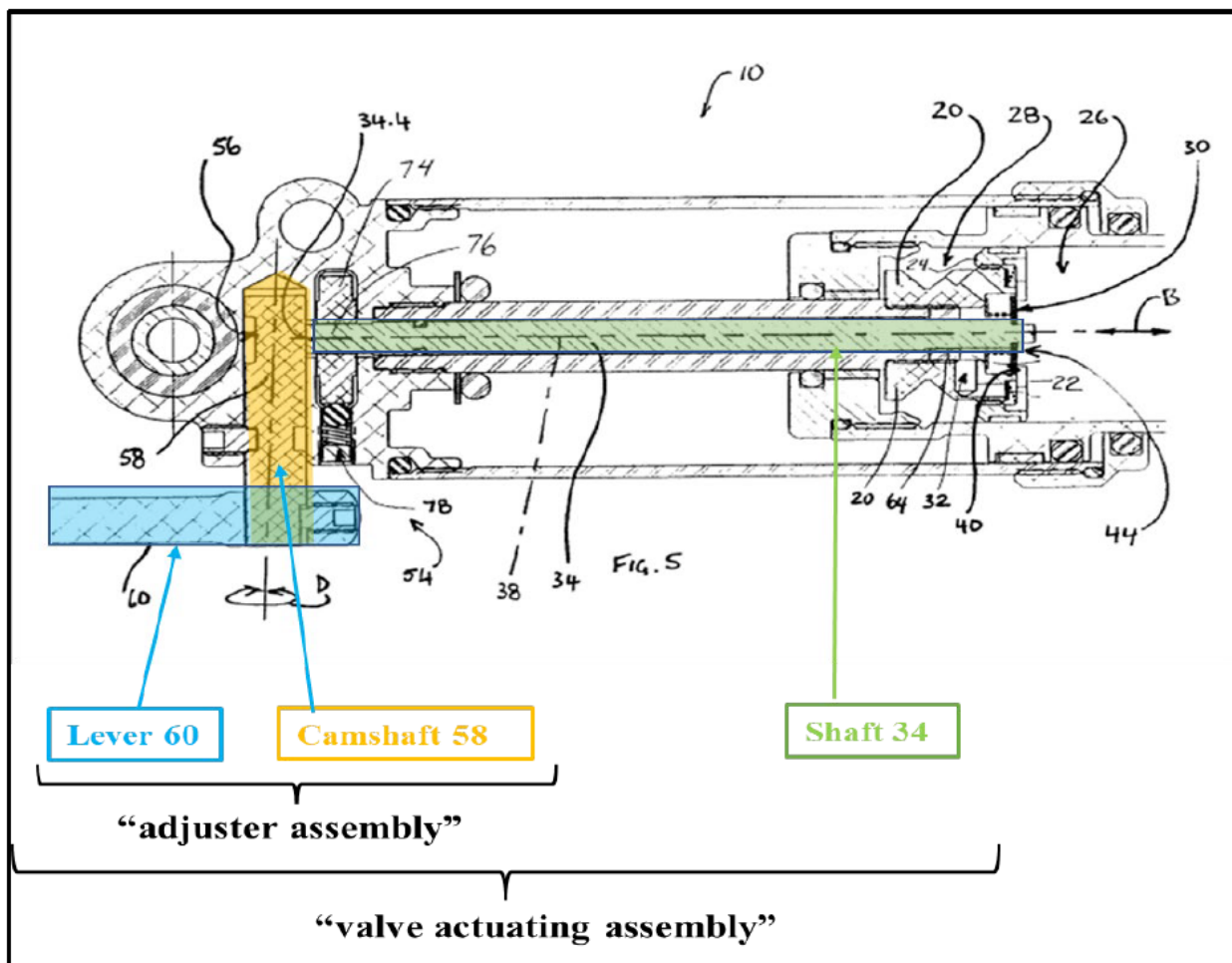
II. GROUND 1: THE '207 PATENT IS ANTICIPATED BY FOX BECAUSE IT DISCLOSES AN “ADJUSTER ASSEMBLY” THAT ADJUSTS THE DAMPING CHARACTERISTICS OF ONE COMPRESSION DAMPING POSITION INDEPENDENT OF ANOTHER POSITION

A. Fox Discloses an “Adjuster Assembly” That Only Partially Overlaps With a “Valve Actuating Assembly”

5. The Challenged Claims of the '207 patent are anticipated by Fox because Fox discloses an “adjuster assembly” as recited in the '207 patent. As I explained in Section VIII.A of my initial Declaration, Fox discloses every limitation of the

Challenged Claims. In response to my initial Declaration, Patent Owner asserted that Fox does not anticipate the Challenged Claims because “Fox fails to disclose the recited ‘adjuster assembly’ adjusting the damping characteristics of one position without affecting those of another position.” Response at 18. I disagree.

6. Fox discloses a “valve actuating assembly” that includes camshaft 58, lever 60, and shaft 34. Ex. 1005, Fig. 5 (annotated below); Ex. 1003, ¶ 49. And Fox discloses an “adjuster assembly” that includes camshaft 58 and lever 60. Ex. 1005, Fig. 5 (annotated below); Ex. 1003, ¶¶ 53-55.



Ex. 1005, Fig. 5 (annotations added) (also shown in Ex. 1003, ¶ 54).

7. As can be seen in the above annotated figure, Fox discloses a “valve actuating assembly” that includes shaft 34. But Fox’s “adjuster assembly” does not include shaft 34. That is, there is only partial overlap between Fox’s “valve actuating assembly” and “adjuster assembly.”

8. Dr. Parnell has misconstrued my opinions and FOX’s Petition and has stated incorrectly that “Petitioner does not even allege that Fox includes an adjuster assembly. Instead, Petitioner relies on the entirety of Fox’s purported valve actuating assembly[.]” Ex. 2016 (Parnell Decl.), ¶ 51. Dr. Parnell has overlooked my opinions regarding Fox in making such an argument. While I explained in my initial Declaration that “there is structural overlap between Fox’s ‘valve actuating assembly’ and ‘adjuster assembly,’” I made no arguments that the two assemblies were the same structure. Ex. 1003, ¶ 54. Fox’s “valve actuating assembly” and “adjuster assembly” are not the same structure because the “valve actuating assembly” includes shaft 34, which is not part of the “adjuster assembly.” That is, Fox’s “valve actuating assembly” and “adjuster assembly” are at least partially separate. Camshaft 58 of Fox’s “adjuster assembly” is operatively connected to shaft 34 of the “valve actuating assembly,” just as in the embodiment shown in Figures 7a-7c of the ’207 patent.

9. Dr. Parnell opines that the “adjuster assembly” must include something more than the “valve actuating assembly,” but such a contention has no basis in the ’207 patent or its prosecution history. *See* Ex. 2016, Section IV.A.1(a). The specification

of the '207 patent does not state that the “adjuster assembly” must have more structure than the “valve actuating assembly.” Nor does the prosecution history impose any such requirement. Moreover, Fox’s “valve actuating assembly” does include more structure than the “adjuster assembly,” i.e., shaft 34.

10. Specifically, Dr. Parnell attempts to distinguish Fox from the embodiment disclosed in Figures 7a-7c of the '207 patent by arguing that the “adjuster assembly” of that embodiment includes threads 84, 86 that are additional features that are not included in the “valve actuating assembly.” Ex. 2016, ¶ 55. But threads 84 are integral with camshaft 56, which is part of the “valve actuating assembly,” and therefore threads 84 are also part of the “valve actuating assembly.” And even though threads 86 are not part of the “valve actuating assembly” and thus constitutes an additional feature of the “adjuster assembly” in the embodiment shown in Figures 7a-7c of the '207 patent, the “valve actuating assembly” of Fox similarly includes an additional feature, i.e., shaft 34, which is specific to the “valve actuating assembly” of Fox. Accordingly, there is only a partial overlap between the “adjuster assembly” and the “valve actuating assembly” of Fox just as in the embodiment shown in Figures 7a-7c of the '207 patent.

B. Fox Discloses At Least Two Positions for its “Valve Actuating Assembly,” Wherein Damping Characteristics of One Position is Adjusted by the “Adjuster Assembly” Without Affecting the Damping Characteristics of Another Position

11. I disagree with Dr. Parnell’s statement that in Fox there is “only one setting

of damping characteristic per position of the lever.” Ex. 2016, ¶ 57. First, there are two clearly identifiable positions of the lever in Fox: an open position and a closed position. The closed position is selected by rotating lever 60 such that shaft 34 is engaged with the non-recessed portion of Fox’s camshaft 58, which in turn axially displaces shaft 34 such that no damping fluid is allowed to pass through port 42. *See* Ex. 1005, 11:10-40. The open position is achieved by rotating lever 60 such that shaft 34 is engaged with the recessed cam surface 56 of camshaft 58. This causes lesser axial displacement of shaft 34 as compared to the closed position, thus allowing some damping fluid to pass through port 42. Thus, Fox’s “valve actuating assembly” allows a user to select between the open position and the closed position by rotating lever 60 to either prevent fluid flow or to allow fluid flow through port 42. Ex. 1005, 11:10-40.

12. Within Fox’s open position, a user may adjust how much fluid is permitted to flow through port 42 by rotating lever 60 to change the contact point of shaft 34 with the rotary cam surface 56, thus adjusting the compression damping characteristics in the open position. More specifically, because cam surface 56 has variable radii, i.e., the radius of curvature along the cam surface changes at different points, different contact points of shaft 34 with cam surface 56 will axially displace shaft 34 by different amounts, thereby adjusting the amount of fluid flowing through port 42 and adjusting/customizing compression damping characteristics accordingly. Because Fox’s open and closed positions correspond to

different camshaft surfaces, rotating lever 60 within cam surface 56 adjusts the compression damping characteristics of the open position but does not impact the damping characteristics of the closed position.

C. The '207 Patent Does Not Mention Fox or Disparages Prior-Art Such as Fox

13. I disagree with Dr. Parnell that the '207 patent narrows the scope of the claimed invention by disparaging prior art such as Fox. Nowhere does the '207 patent identify Fox, nor does the '207 patent discuss or disparage the mechanism of Fox. The background section of the '207 patent discusses a lever/cam and adjuster rod arrangement where a given position of the lever/cam, i.e., open or closed, corresponds to “exactly one position of the adjuster rod.” Ex. 1001, 1:30-43. That is not the case with Fox. Contrary to Dr. Parnell’s assertions, the open position in Fox is associated with a rotary cam surface 56, which is not disclosed in the background section of the '207 patent. The rotary cam surface 56 allows a user to customize the open setting by adjusting the point at which cam surface 56 contacts the adjuster rod (shaft 34), thereby varying the axial position of the rod and the compression damping characteristics. Thus, Fox allows a rider to have a closed position that maintains the same damping characteristics and an open position where the damping characteristics can be adjusted (independently of the closed position) by rotating the lever.

14. Patent Owner further disparages prior art such as Fox by arguing that, “[i]n a

prior art actuator arrangement, such as that disclosed in Fox, a rider may have 15-clicks-worth of lever adjustments with which they may obtain their different damping characteristics ... [a rider] would have to use whatever tactile feedback is available and count clicks in order to end up with the correct setting.” Response at 8-9. However, such criticism ignores what a user would need to do to adjust the damping characteristics in the adjustable position of the embodiment shown in Figures 7a-7c: count rotations of the lever. Furthermore, nothing in the Challenged Claims imposes any requirement on how a user should be able to use the “valve actuating assembly” or the “adjuster assembly,” or the ease of use. So, Patent Owner’s comments about the difficulty of using Fox’s lever in the open position to adjust damping characteristics is a distraction from the actual claim limitations.

III. GROUND 2: THE ’207 PATENT IS OBVIOUS BASED ON THE COMBINATION OF FOX, JP’279 AND NAGAI BECAUSE THE COMBINATION DISCLOSES A DISTINCT “ADJUSTER ASSEMBLY” THAT ADJUSTS THE DAMPING CHARACTERISTICS OF ONE POSITION WITHOUT AFFECTING ANOTHER POSITION

A. The Combination of the “Adjuster Assembly” of JP’279 and Nagai with Fox’s “Valve Actuating Assembly” Allows for Fine Adjustment of Damping Characteristics in the Open Position

15. In my initial Declaration, I proposed a combination where Fox’s cam surface 56 (which is associated with the open position) is modified to include tapered surface 44 from JP’279 and a means for displacing camshaft 58 along its longitudinal axis. Ex. 1003, ¶¶ 91-98. This combination would allow a user to rotate lever 60 to an open position, and then allow the user to adjust the damping

characteristics in that open position by axially displacing camshaft 58 along its longitudinal axis using the “adjuster assembly.”

1. The combination of Fox, JP’279, and Nagai includes an “adjuster assembly”

16. Dr. Parnell argues incorrectly that the combination of Fox, JP’279, and Nagai does not include an “adjuster assembly” and “a means for independent adjustment of damping characteristics for one position.” Ex. 2016, ¶ 77. But in my initial Declaration, I clearly discussed “a mechanism for axially displacing slider 43 [having tapered surface 44] using gear 49 and feed axle 50” as taught by JP’279. Ex. 1003, ¶ 92. I additionally explained that one skilled in the art would have been motivated to use a simplified mechanism such as Nagai’s stopper bolt 141 in place of JP’279’s gear 49 and feed axle 50 to axially displace Fox’s camshaft 58 (modified to have JP’279’s slider 43):

A skilled artisan would also have readily known how to implement a manual or motorized mechanism to axially move Fox’s camshaft 58 (modified to have JP’279’s tapered surface 44) along the camshaft’s longitudinal axis. *See* Ex. 1007, 5-6. In particular, a POSITA would have known to implement a mechanism such as Nagai’s stopper bolt 141 threaded into Fox’s camshaft housing to axially displace Fox’s camshaft 58, which would be similar to JP’279’s “adjuster assembly” (i.e., feed axle 50 engaged with slider 43). A POSITA would have been motivated to use Nagai’s stopper bolt 141 to axially move camshaft 58 to simplify and combine implementations of the elements of JP’279’s “adjuster assembly”

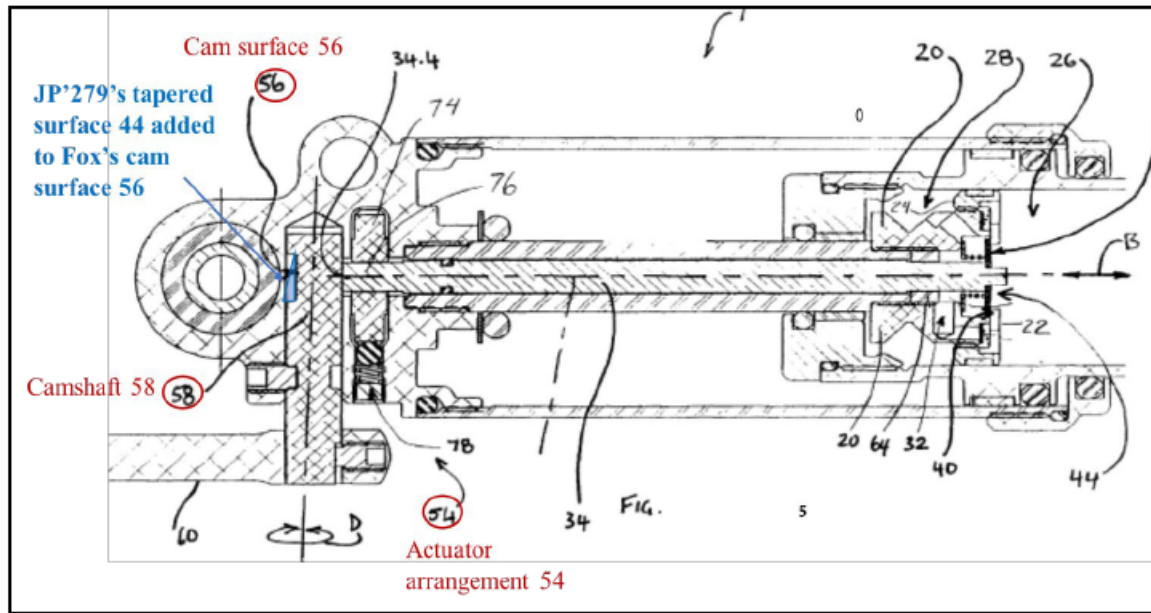
and Nagai's limiting mechanism into Fox's suspension system to improve the compression damping adjustment mechanism of Fox.

Ex. 1003, ¶ 97.

17. Thus, I fully explained that Fox modified to have JP'279's tapered surface 44 and Nagai's stopper bolt 141 has a mechanism to finely adjust the damping characteristics in Fox's open position. Ex. 2003, ¶¶ 97, 98. Dr. Parnell completely disregards several paragraphs of my initial Declaration when he argues that the combination of Fox, JP'279 and Nagai does not have an "adjuster assembly."

2. Dr. Parnell incorrectly states that JP'279's tapered surface 44 is applied over the entire circumference of Fox's camshaft 58, not just the rotary cam surface 56

18. Contrary to Dr. Parnell's argument, nowhere did I suggest or imply that JP'279's tapered surface 44 is applied "over the entire device [of Fox], and not limited to one position of the valve actuating assembly." Ex. 2016, ¶ 78. To the contrary, I specifically stated that "[a] POSITA would have known they would achieve fine-tuning adjustment by adding the tapered surface 44 of JP'279's 'adjuster assembly' to Fox's cam surface 56[.]" Ex. 1003, ¶ 93 (emphasis added). Nowhere did I say that the tapered surface 44 is added to the entire camshaft 58, i.e., both the recessed cam surface 56 corresponding to an open position and the non-recessed surface corresponding to the closed position.



Ex. 1003, ¶ 93 (showing JP'279's tapered surface 44 is added to Fox's cam surface 56).

19. The solid models I created illustrate in 3D such an exemplary arrangement, where tapered surfaces are added to a cam (such as cam surface 56) for fine adjustment of cam action. Such tapered cam surfaces were well known long before the '207 patent was filed in November 2004. For example, U.S. Patent No. 3,456,397, published in 1969, describes a cam tapered in the shape of a “cone frustum” —much like the solid models I created— that can be adjusted axially to alter the point of contact between the cam and a rocker. Ex. 1019, 4:28-55; Figs. 5-7. Tapered cams have also been used in engines, specifically in combustion engines to aid with the load on the engine, well before November 2004. *See* Ex. 1020 (C E Sargent, *Essentials of a Successful Constant-Compression Engine* (SAE International 1924)) at 202-203, 216. Further, such tapered cams have been

described as easy to manufacture with a milling cutter and “nearly as cheap[] as ... the ordinary typical camshaft.” Ex. 1020 at 216. Tapered cams have also been used to provide fine tuning for measuring position. Ex. 1021(E. D. Hudson, Oak Ridge Model Magnet Studies (1959)) at 107. Tapered cams have also been used outside the mechanical arts for decades. For example, US 3,890,025 (issued in 1975) discloses “a tapered cam 6” for an electrical plug, “which, in addition to rotating, is also free to move longitudinally within the ground connector in order to compensate for any dimensional variations, of either the plug 1 or the socket into which the plug 1 is inserted.” Ex. 1022, 2:31-36. Therefore, I disagree with Dr. Parnell that my 3D models of tapered cams were created in hindsight.

20. I also disagree that the tapered surface is added to the entire surface of Fox’s camshaft 58, or that the proposed combination would change damping characteristics in all positions (open and closed). *See* Ex. 2016, ¶ 78. Because JP’279’s tapered surface 44 is added to *only* the recessed cam surface 56 of Fox’s camshaft, which corresponds to the open compression damping position/setting, axial displacement Fox’s camshaft using the “adjuster assembly” means (discussed above) would only adjust the damping characteristics of the open position.

Nowhere did I say that such taper is added to the non-recessed portion of Fox’s camshaft 58. Although the figures in pages 66-68 of my initial Declaration show tapers on all cam surfaces for ease of illustration, I believe I clearly explained that the “eccentric cylinder cam” in my illustrations have “three different cam radii

regions” and “[e]ither of these cam surfaces may also be tapered in accordance with JP’279 such that cam action (displacement of the rod end contacting the cam) may occur by rotation and/or axial motion of the camshaft[.]” Ex. 1003, ¶¶ 94, 95. In fact, I further explained that although the cam models “are drawn as continuous curved surfaces, [] they could have more pronounced flat regions at specific rotation angles,” which a POSITA would understand to be associated with the non-recessed portion of Fox’s camshaft 58. Ex. 1003, ¶ 96. Because the non-recessed surface corresponding to the closed position remains flat (without a taper), axial displacement of the camshaft does not affect the damping characteristics of the closed position. Therefore, Dr. Parnell’s argument that JP’279’s tapered surface is added to the entire surface of Fox’s camshaft 58, or that the proposed combination would change damping characteristics in all positions, is incorrect.

B. A POSITA Would Have Been Motivated and Reasonably Expected Success in Modifying Fox in View of JP’279 and Nagai

21. As a POSITA would have clearly understood from the disclosure of Fox, switching between the open and closed compression damping settings/positions would provide a coarse adjustment of damping characteristics. A POSITA would have further understood that additional adjustments within the open position — i.e., adjustments using JP’279 tapered surface 44 on Fox’s cam surface 56 and Nagai’s means for axial movement of Fox’s camshaft— would fine-tune the compression damping characteristics within the open position to account for the

terrain, rider's weight, etc. Thus, a POSITA would have been motivated to make the combination to improve Fox's shock absorber.

22. While it is correct that Fox's cam surface 56 and JP'279's tapered surface are each capable of adjusting compression damping characteristics within the open setting, JP'279's tapered surface configuration allows for fine resolution control as compared to the cam/lever arrangement of Fox. This is because the "adjuster assembly" in the Fox, JP'279, and Nagai combination would adjust the damping characteristics in a linear manner (as opposed to the non-linear adjustment by a rotary cam surface), thus creating fine adjustment. The "adjuster assembly" in the proposed combination would allow adjustments with finer resolution than is possible by just directly rotating lever 60. In other words, although a rotary cam surface and a tapered cam surface can each provide additional adjustments within the open setting, a tapered cam surface allows for better resolution and adjustment controls because one feature amplifies the other. A bicycle analogy is the rear derailleur, which allows a rider to select a range of ratios, but adding a front derailleur increases the range and resolution. For example, when shifting the chain from the front large ring to the smaller ring, any of the rear ring sprockets then selected have an effective lower gear ratio (making it easier to peddle). That is why a POSITA would have been motivated to modify Fox to have JP'279's tapered surface to achieve fine adjustment of compression damping as taught by JP'279.

23. Fine-tuning of damping characteristics was well known at the time the '207

patent application was filed. Indeed, JP'279 clearly teaches fine adjustment of compression damping using tapered surface 44 and rebound damping using tapered surface 45. Ex. 1007, 5-6.

24. Moreover, the proposed combination of Fox, JP'279, and Nagai would have been simple, cost-effective, and would have yielded predictable results. In my initial Declaration, I explained how a POSITA would have modified Fox's cam surface 56 to incorporate JP'279's tapered surface 44, and I created several solid models demonstrating such a modification. Ex. 1003, ¶¶ 94-96. The tapering process through machining would have been simple to a POSITA at the time the '207 patent application was filed. *See* Ex. 2020 at 216. CNC machining has been around since the 1950s and has been a staple for manufacturing in recent decades. A POSITA would have been aware of CNC machining and would have understood that implementing a tapered surface onto Fox's cam surface 56 would have achieved the predictable result of fine-tuning compression damping characteristics.

25. A POSITA knowing Fox and JP'279 would have been motivated to combine the teachings of the two references by incorporating not only JP'279's tapered surface 44, but also the "adjuster assembly" means, such as gear 49 and feed axle 50, for axial displacement of Fox's camshaft 58. For simplicity and ease of implementation, a POSITA would have been further motivated to use a mechanism such as Nagai's for axial displacement of Fox's camshaft 58. A POSITA would have reasonably expected success in combining the teachings of Fox, JP'279, and

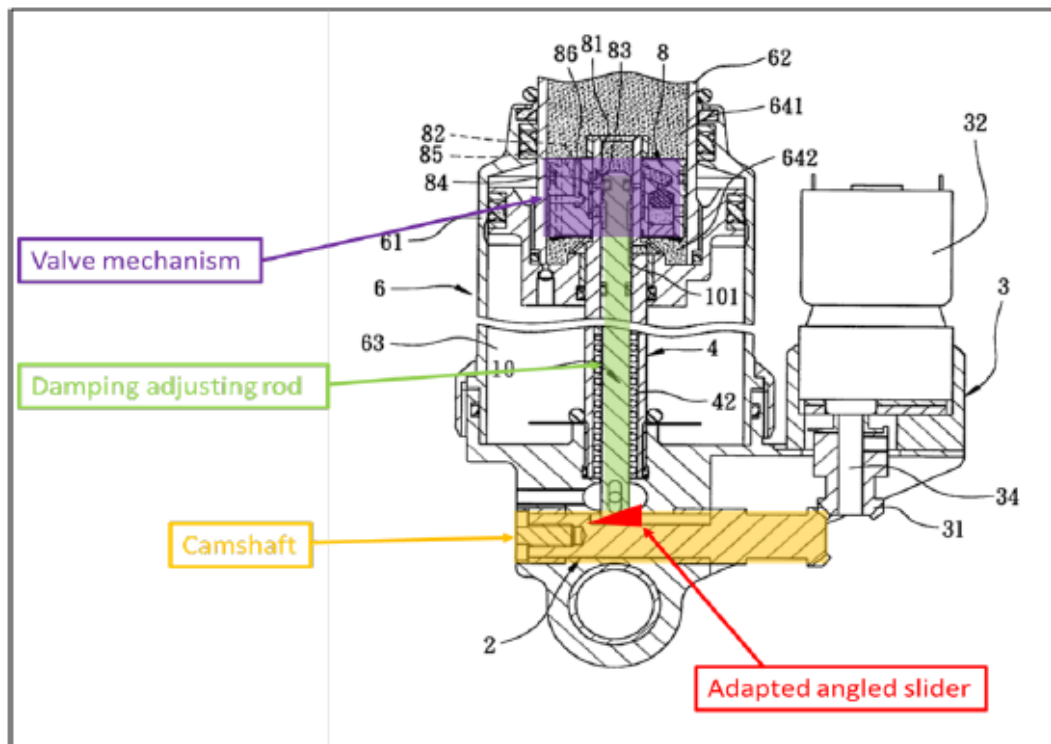
Nagai because these references teach universal mechanical concepts and techniques (e.g., cams, gears, feed axles, etc.) and would have expected the predictable result of fine-tuning compression damping.

IV. GROUND 3: THE '207 PATENT IS OBVIOUS BASED ON THE COMBINATION OF YI, JP'279, AND NAGAI BECAUSE THE COMBINATION DISCLOSES A DISTINCT "ADJUSTER ASSEMBLY" THAT ADJUSTS THE DAMPING CHARACTERISTICS OF ONE POSITION WITHOUT AFFECTING ANOTHER POSITION

A. The Combination of the "Adjuster Assembly" of JP'279 and Nagai with Yi's "Valve Actuating Assembly" Allows for Fine Adjustment of Damping Characteristics in Yi's Second Compression Damping Position

26. In my initial Declaration, I proposed a combination of Yi, JP'279, and Nagai where one of Yi's cam surfaces is modified to include JP'279's tapered surface 44, and Yi is further modified to include means for displacing camshaft 2 along its longitudinal axis. Ex. 1003, ¶¶ 132-135. More specifically, I explained that Yi's camshaft 2 is rotatable between at least three compression damping positions corresponding to low-velocity (first), medium-velocity (second), and high-velocity (third) flows. Ex. 1003, ¶ 131. And I further explained that a POSITA would have been motivated to add JP'279's tapered surface 44 to the cam surface of Yi's camshaft 2 that corresponds to the medium-velocity compression damping setting. Ex. 1003, ¶¶ 132, 134. This would allow a user to select, for example, the medium-velocity compression damping setting (using lever 201 of Yi's "valve actuating assembly"), then further allow the user to fine-tune the medium-velocity damping

characteristics by axially displacing camshaft 2 along its longitudinal axis (using the “adjuster assembly” means of JP’279 or Nagai). This proposed combination does not affect Yi’s low-velocity and high-velocity compression damping settings. This is because the tapered surface is added to only the cam surface corresponding to the second position (and the cam surfaces corresponding to the first and third positions remain level). Thus, axial displacement of camshaft 2 does not change the damping characteristics of the low-velocity or the high-velocity compression damping settings.



Ex. 1003, ¶ 134 (showing JP’279’s tapered surface added to Yi’s camshaft 2 at the cam surface corresponding to the medium-velocity (second) compression damping setting).

27. Thus, Dr. Parnell's argument that JP'279's tapered surface is added to the entire surface of Yi's camshaft 2, or that the proposed combination would change damping characteristics in all positions, is incorrect and disregards the clear explanations in my initial Declaration.

28. In my initial declaration, I also clearly discussed "a mechanism for axially displacing slider 43 [having tapered surface 44] using gear 49 and feed axle 50" as taught by JP'279. Ex. 1003, ¶ 133. I additionally explained that one skilled in the art would have motivated to use a simplified mechanism such as Nagai's stopper bolt 141 in place of JP'279's gear 49 and feed axle 50 to axially displace Yi's camshaft 2 (modified to have JP'279's slider 44). Ex. 1003, ¶ 134. Thus, I fully explained that Yi modified to have JP'279's tapered surface 44 and Nagai's stopper bolt 141 has a distinct mechanism—Nagai's stopper bolt 141 threaded into Yi's camshaft housing—to finely adjust the damping characteristics in Yi's second compression damping position.

29. The combination of Yi, JP'279, and Nagai allows for fine-tuning the damping characteristics of one position of the "valve actuating assembly." A POSITA would have clearly understood from the disclosure of Yi that switching between the three compression damping settings/positions would provide a coarse adjustment of compression damping characteristics. A POSITA would have further understood that additional adjustments within the second position — i.e., adjustments using JP'279's tapered surface 44 on Yi's cam surface corresponding

to the second position and Nagai's means for axial movement of Yi's camshaft 2—would fine-tune the compression damping characteristics within the second position to account for the terrain, rider's weight, etc., and thereby improve the Yi shock absorber. Therefore, a POSITA would have been motivated to make the combination. Fine-tuning of damping characteristics was well known at the time the '207 patent application was filed. Indeed, JP'279 clearly teaches fine adjustment of compression damping using tapered surface 44 and rebound damping using tapered surface 45.

30. Moreover, the proposed combination of Yi, JP'279, and Nagai would have been simple, cost-effective, and would have yielded predictable results. As I explained previously, tapered cam surfaces were well known before the '207 patent application was filed, and a POSITA would have reasonably expected success in implementing a tapered cam surface and means of axially displacing Yi's camshaft, and would have achieved the predictable result of fine-tuning Yi's compression damping characteristics.

V. CONCLUSION

31. For the reasons explained in detail above and in my initial Declaration, every element of the Challenged Claims of the '207 patent is disclosed by Fox (Ground I), Fox in view of JP'279 and Nagai (Ground II), and Yi in view of JP'279 and Nagai (Ground III). A person skilled in the art would have been motivated to make the modifications and/or combinations and doing so would have required only

routine engineering skills and knowledge, and the modifications and/or combinations would have yielded predictable results.

32. I declare under penalty of perjury under the laws of the United States of America that the foregoing is true and correct, that all statements made herein of my knowledge are true, and that all statements made on information and belief are believed to be true, and that these statements were made with the 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.

Respectfully submitted,

A handwritten signature in black ink, consisting of several loops and a long horizontal stroke extending to the right.

Dated: January 22, 2025

By: _____

Alexander H. Slocum, Ph.D.