UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

FOX Factory, Inc.,

Petitioner,

v.

SRAM, LLC,

Patent Owner.

U.S. Patent No. 7,147,207 B2

Filing Date: November 4, 2004

Issue Date: December 12, 2006

Title: ACTUATOR APPARATUS FOR CONTROLLING A VALVE MECHANISM OF A SUSPENSION SYSTEM

Case No. IPR2024-00492

PATENT OWNER RESPONSE

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Ex. 2001	Order Denying Fox Factory, Inc.'s Motion to Transfer to the Northern District of California and Order to Show Cause as to Why Sanctions Are Not Appropriate, dated March 6, 2024, *SRAM, LLC v. FOX Factory, Inc.*, Case No. 1:23-cv-00492-SCJ (United States District Court – N.D. Georgia)
Ex. 2002	Thomson Reuters' Westlaw Litigation Analytics Report (United States District Court – N.D. Georgia)
Ex. 2003	LexisNexis Analytics (United States District Court – N.D. Georgia)
Ex. 2004	United States Department of Justice District Court Caseload Statistics
Ex. 2005	Scheduling Order, dated May 31, 2023, *SRAM, LLC v. FOX Factory, Inc.*, Case No. 1:23-cv-00492-SCJ (United States District Court – N.D. Georgia)
Ex. 2006	Fox Factory, Inc.'s Brief in Opposition to SRAM's Motion to Stay, dated Jan. 8, 2024, *FOX Factory, Inc. v. SRAM, LLC*, Case No. 1:23-cv-00313-RM-KAS (United States District Court – D. Colorado)
Ex. 2007	Fox Factory, Inc.'s Preliminary Invalidity Contentions, dated June 16, 2023 (including Exhibits 4 and 5), *SRAM, LLC v. FOX Factory, Inc.*, Case No. 1:23-cv-00492-SCJ (United States District Court – N.D. Georgia)
Ex. 2008	Declaration of Michael Durbin
Ex. 2009	Thomson Reuters' Westlaw Litigation Analytics Report (Honorable Steve C. Jones Case Statistics)

Exhibit	Description
Ex. 2010	Joint Preliminary Report and Discovery Plan dated April 17, 2023, *SRAM, LLC v. FOX Factory, Inc.*, Case No. 1:23-cv-00492-SCJ (United States District Court – N.D. Georgia)
Ex. 2011	March 7, 2024 Through March 15, 2024 Email Exchange Between Counsel for Patent Owner and Counsel for Petitioner
Ex. 2012	June 4, 2024 Through June 14, 2024 Email Exchange Between Counsel for Patent Owner and Counsel for Petitioner
Ex. 2013	Second Declaration of Michael Durbin
Ex. 2014	Declaration of Richard Walsh, Jr.
Ex. 2015	U.S. Patent No. 4,488,704 to Wicker
Ex. 2016	Declaration of Dr. Kim Parnell
Ex. 2017	Joint Claim Construction Statement, dated July 8, 2024 (including Exhibit A), *SRAM, LLC v. FOX Factory, Inc.*, Case No. 1:23-cv-00492-SCJ (United States District Court – N.D. Georgia)
Ex. 2018	Order, dated September 27, 2024, *SRAM, LLC v. FOX Factory, Inc.*, Case No. 1:23-cv-00492-SCJ (United States District Court – N.D. Georgia)
Ex. 2019	Deposition of Dr. Alexander Slocum, dated October 24, 2024
Ex. 2020	Third Declaration of Michael Durbin

I. INTRODUCTION

The '207 Patent represents a leap forward in convenience and customization for shock absorbers in the vehicle suspension field – providing a solution that is both easy for the rider and tunable to the rider's specific preferences and needs. Specifically, the '207 Patent discloses a novel adjuster assembly that gives the rider the ability to choose between a preset damping option ***and*** a user-adjustable damping option that does not affect the first preset option – the best of both worlds from a rider perspective. Ex. 2016, Declaration of Dr. Kim Parnell ("Parnell"), ¶29.[1]

"Damping" in suspension systems generally serves the function of restricting the manner and speed at which the springs compress and rebound, for example, so a bicycle does not go up and down too fast – like a pogo stick. *Id*., ¶25. Being able to adjust the degree of those variables allows for a better riding experience tailored to the individual rider. The inventions claimed in the '207 Patent include these

[1] Patent Owner submits herewith expert testimony from Dr. Kim Parnell, who obtained a Ph.D. in Mechanical Engineering from Stanford University more than twenty (20) years prior to the filing of the '207 Patent and who had extensive experience in the design of vehicle components and/or like technology as of 2004. Ex. 2016 (Parnell), ¶¶4-13.

benefits thanks to the invention of a novel "actuator apparatus for controlling a valve mechanism of a suspension system that includes a valve actuating assembly operable between at least two rider-selectable positions and an adjuster assembly for adjusting the damping characteristics of at least one of the rider-selectable positions." Ex. 1001 ('207 Patent), 1:7-13; Ex. 2016 (Parnell), ¶¶25, 30. The key to this actuator apparatus is a novel adjuster assembly, one which does not exist in any form in the prior art.

The '207 Patent is thus able to provide a damping system, with multiple embodiments, that is both easy and intuitive to adjust over a wide range of preset damping characteristics while simultaneously providing user-adjustable damping. Ex. 2016 (Parnell), ¶¶29-30. In response, Petitioner FOX Factory, Inc. ("Petitioner") and their tendered expert misrepresent the nature and scope of the '207 Patent and the underlying prior art, including not only cobbling together a variety of disparate pieces of prior art in improper hindsight combinations, but also wrongfully attempting to assert that its own prior art somehow anticipates the '207 Patent claims even though the '207 Patent claims were expressly obtained over and distinguished from that FOX prior art.[2]

[2] Notably, Petitioner was recently sanctioned by the federal court in parallel litigation involving the '207 Patent in the United States District Court for the

The Board should reject Petitioner's strained and misleading arguments and confirm the clear advantages over the art that the inventions claimed in the '207 Patent provide, with a unique combination of elements not disclosed anywhere in the art.

II. THE '207 PATENT INVENTION

A. The '207 Patent's Novel Preset and User-Adjustable Damping Options

The '207 Patent significantly improves the convenience and customization of vehicle shock absorbers by providing a solution that is both easy for the rider and tunable to the rider's specific preferences and needs. Ex. 2016 (Parnell), ¶29.

Northern District of Georgia – *SRAM, LLC v. FOX Factory, Inc.*, No. 1:23-cv-00492-SCJ, for making similar and fundamental misrepresentations about its own business, namely where its own principal place of business is located. *See* Exhibit 2018, at 3 ("The Court *sua sponte* required FOX to show cause why sanctions should not issue over its misrepresentations regarding the location of its principal place of business."); (*id.* at 16) ("Based on these facts, the Court is constrained to find that FOX and its litigation counsel made 'knowingly false statement[s] or exhibit[ed] a deliberate indifference to obvious facts' and, thus, acted in a manner akin to contempt that supports a Rule 11 sanction.") (footnote omitted).

Specifically, the '207 Patent uses a novel adjuster assembly so that the rider can choose between a preset damping option ***and*** a user-adjustable damping option that does not affect the first preset option, thereby permitting the rider to "customize the damping characteristics of the suspension system to suit the terrain or the rider's particular riding style." Ex. 1001 ('207 Patent), 1:41-43; Ex. 2016 (Parnell), ¶¶29-30.

The '207 Patent include these benefits thanks to the invention of a novel "actuator apparatus … that includes a valve actuating assembly operable between at least two rider-selectable positions and an adjuster assembly for adjusting the damping characteristics of at least one of the rider-selectable positions." Ex. 1001 ('207 Patent), 1:7-13 (emphasis added); Ex. 2016 (Parnell), ¶30. Said another way, the inventions claimed in the '207 Patent include a valve actuating assembly or lever with ***one position that provides adjustable damping characteristics via an adjuster assembly***, and ***another position having damping characteristics that are unaffected by adjustment of the other position***. Ex. 2016 (Parnell), ¶¶30, 32.

As the '207 Patent notes in the Background of the Invention, damping in a suspension system is a key aspect of a shock absorber's overall performance:

> The damping characteristics of a suspension system can affect the quality of performance provided by a shock absorber for a given application. Damping characteristics are affected by various factors

> such as rider weight, rider skill, terrain conditions, etc. Accordingly, it is desirable to provide a suspension system wherein the damping characteristics are adjustable. Further, it is advantageous to provide shock absorbers that are externally adjustable by the rider.

Ex. 1001 ('207 Patent), 1:22-29; Ex. 2016 (Parnell), ¶31. Thus, the inventors of the '207 Patent recognized a need to have a suspension system adaptable to a variety of different riders' needs and preferences. Ex. 2016 (Parnell), ¶31.

Conventional shock absorbers have adjustable damping characteristics, but the adjustability is limited to adjustments made by changing between multiple positions of a single lever. Ex. 2016 (Parnell), ¶32. The '207 Patent explains:

> A typical design for a damping adjuster uses an adjuster rod that extends down the center of the piston shaft and engages the valve mechanism or performs the function of the valve mechanism. Adjustment is commonly made … [when] the adjuster rod is moved axially (up or down) to alter damping … For example, a cam attached to a lever may be engageable with the adjuster rod to vary the axial position of the rod. One problem associated with this configuration is that any given angular position of the lever/cam corresponds to exactly one position of the adjuster rod. This limits the ability of the rider to customize the damping characteristics of the suspension system to suit the terrain or the rider's particular riding style.

Ex. 1001 ('207 Patent), 1:30-43.

Thus, a conventional shock absorber may allow a rotational input by the rider at the lever to rotate a cam. The rotation of the cam engages an adjuster rod, which adjuster rod is typically biased towards the cam via a spring, moving that adjuster rod in an axial up-and-down direction along the length of the rod. U.S. Patent No. 6,360,857 to Fox ("Fox") (Ex. 1005), a prior art reference already specifically considered and overcome during prosecution of the '207 Patent, yet nevertheless relied upon here by Petitioner, shows this known arrangement:

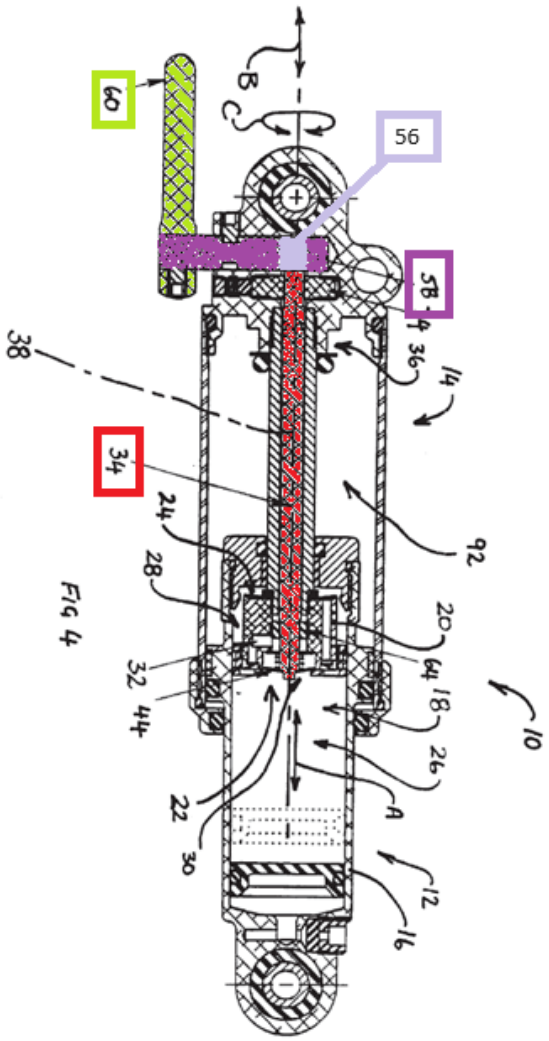


FIG 4

Ex. 1005 (Fox), FIG. 4; Ex. 2016 (Parnell), ¶¶32-33.

In the Fox prior art, the actuation shaft **58** (purple) includes a cam **56** (light purple), which cam **56** rotates to move the shaft **34** (red) in an axial up-and-down direction along the length of the shaft **34**. Ex. 1005 (Fox), 8:9-30; Ex. 2016 (Parnell), ¶34. In Fox and similar conventional shock absorber designs (including other cumulative art asserted here by Petitioner), each rotational position of the lever **60** (green) corresponds with a different axial position of the actuation shaft **58** including the cam **56**. Each axial position of the shaft **34** has a single, unchanging setting of damping characteristics. Ex. 2016 (Parnell), ¶34. In other words, for each rotational position of the lever **60**, there is a single damping characteristic. *Id*.

The '207 Patent improves upon this already known design ***by adding a novel adjuster assembly***. The '207 Patent adjuster assembly is the key that allows a rider to have at least ***one position of the relevant lever*** (or other valve actuating assembly) ***that maintains the same damping characteristics*** when ***another position of the lever has its damping characteristics adjusted*** via an adjuster assembly. Ex. 1001 ('207 Patent), 8:45-58 (claim 1); Ex. 2016 (Parnell), ¶35. Having preset positions of the lever with consistent damping characteristics may be convenient to the rider, especially when those preset positions correspond with recognized damper settings, such as an "open" position where the damper provides

the least amount of damping available for the shock absorber or a "lockout" position where the damper provides the greatest amount of damping available for the shock absorber where the fluid flow is reduced to a minimum. *See, e.g.*, Ex. 1001 ('207 Patent), 4:51-64; Ex. 2016 (Parnell), ¶36. At the same time, the '207 Patent is able to provide an additional position of the relevant lever that has user-adjustable damping characteristics to suit the particular preferences of the user. Ex. 1001 ('207 Patent), 1:23-43; Ex. 2016 (Parnell), ¶37. This user-adjustable position allows ***the novel adjuster assembly*** to change the settings for damping characteristics while the lever is set to this user-adjustable position. As a result, the '207 Patent discloses an inventive damping system that is both easy and intuitive to adjust over a wide range of preset damping characteristics while simultaneously providing user-adjustable damping. Ex. 2016 (Parnell), ¶37. In other words, it allows the rider to switch back-and-forth between settings, including at least one setting that is customizable to the rider without affecting the other settings.

The usefulness of the '207 Patent is readily apparent. In 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. As a result, it may be difficult for a rider to reliably set the actuator to a "lockout" state during a climb, and then set the actuator to a specific more-

opened state when the rider is ready to descend from the top of a hill. Doing so accurately would require the rider to reach down on the bicycle frame, between their legs, to actuate an unseen actuator lever while in motion. They would have to use whatever tactile feedback is available and count clicks in order to end up with the correct settings, *e.g.*, going from 0 to 8 (out of 10 settings). *Id.*, ¶38.

In contrast, the inventions claimed in the '207 Patent allow for a system having a preset "lockout" position and a rider-set descending position that is already set to the damping characteristics preferred by that rider for the downhill portion. In this way, when the rider has to reach down on the bicycle frame, between their legs, to switch the damping characteristics during the ride, the rider can easily and conveniently switch between these two modes of operation. Under the Fox-like prior art system, the user would need to find their correct "click" position before their descent. As a result of these operability differences, the inventions claimed in the '207 Patent allow for a control system with truly practical adjustability. *Id.*, ¶39.

The '207 Patent discloses multiple, varied exemplary structures capable of simultaneously providing both types of benefits. *Id.*, ¶40. As shown in Figure 1, the '207 Patent's shock absorber **10** includes a valve actuating assembly **16** and an adjuster assembly **18**. The valve actuating assembly **16** includes, in an exemplary embodiment of the claimed invention, a selector **20** (which comprises a camshaft

56 (purple, below) that is rigidly attached to a rider-operated lever **54** (green)) and a driver **22** (red). The adjuster assembly **18** includes, in an exemplary embodiment of the claimed invention, a threaded knob **70** (yellow). Ex. 1001 ('207 Patent), 3:42-62, 4:23-24. Ex. 2016 (Parnell), ¶40. These structures are colorized in the annotated reproduction of Figure 1, below:

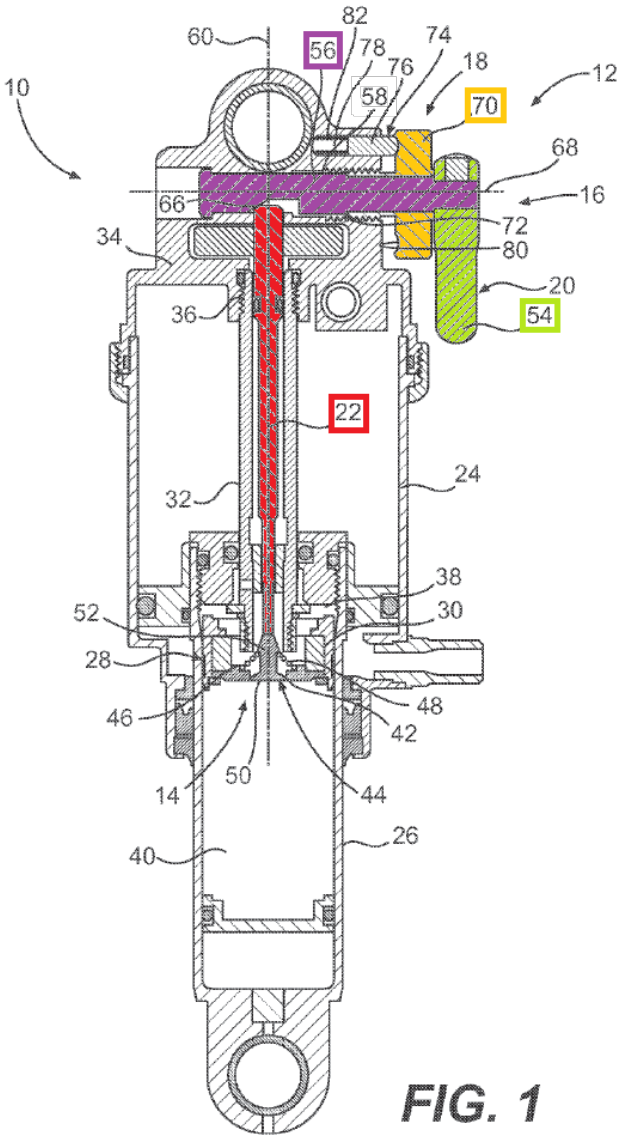


FIG. 1

The valve actuating assembly **16** is rotatable to at least two positions, which positions are ***rotational positions*** of the lever **54** and ***correspond*** to positions of the camshaft **56** in the disclosed embodiment. *E.g.*, Ex. 1001 ('207 Patent), 3:42-62, 4:51-5:47; Ex. 2016 (Parnell), ¶41. For example, Figures 2 and 3 show two side views of the camshaft **56** in two different rotational positions, rotated around its major axis **68**:

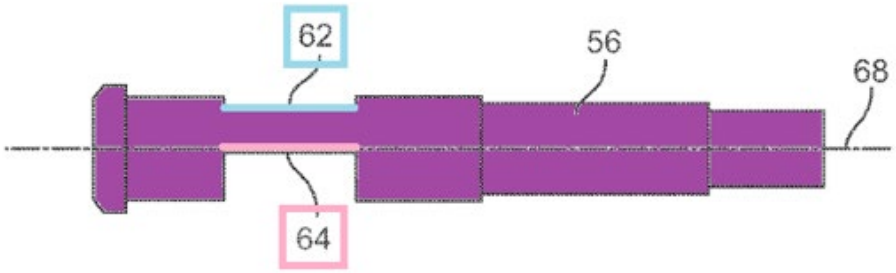


FIG. 2

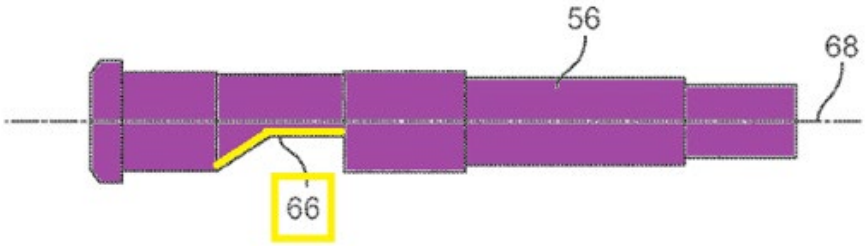


FIG. 3

As can be seen above, the camshaft **56** (purple) includes three surfaces in this embodiment, surfaces **62** (light blue), **64** (pink), and **66** (yellow). Ex. 2016

(Parnell), ¶¶41-42. Cam surface **64** (pink) is formed to have the smallest radius from the axis of rotation **68**, while cam surface **62** (light blue) has a greater radius from the axis of rotation **68**. On the other hand, the surface **66** (yellow) has a variable radius from the axis of rotation **68** that is created by the sloping of the surface **66**. *Id.*, ¶42. Figures 5a, 5b, and 5c show the camshaft **56** from a perspective that is aligned with the axis of rotation **68** so that the relationships between these surfaces and the driver **22** (red) is apparent:

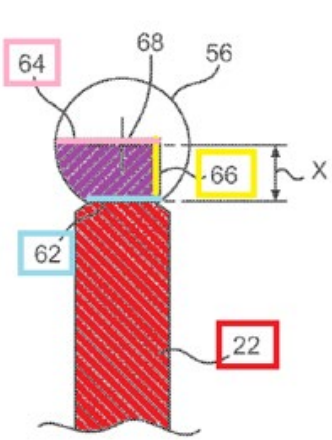


FIG. 5a

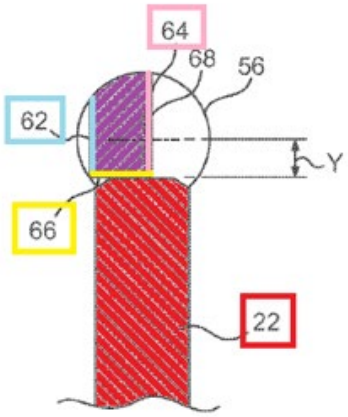


FIG. 5b

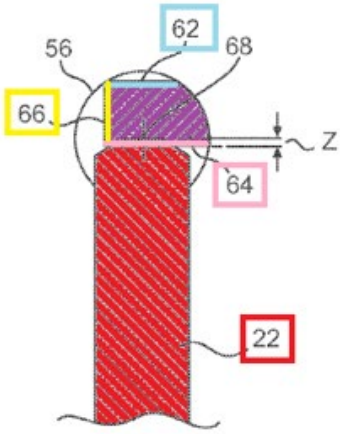


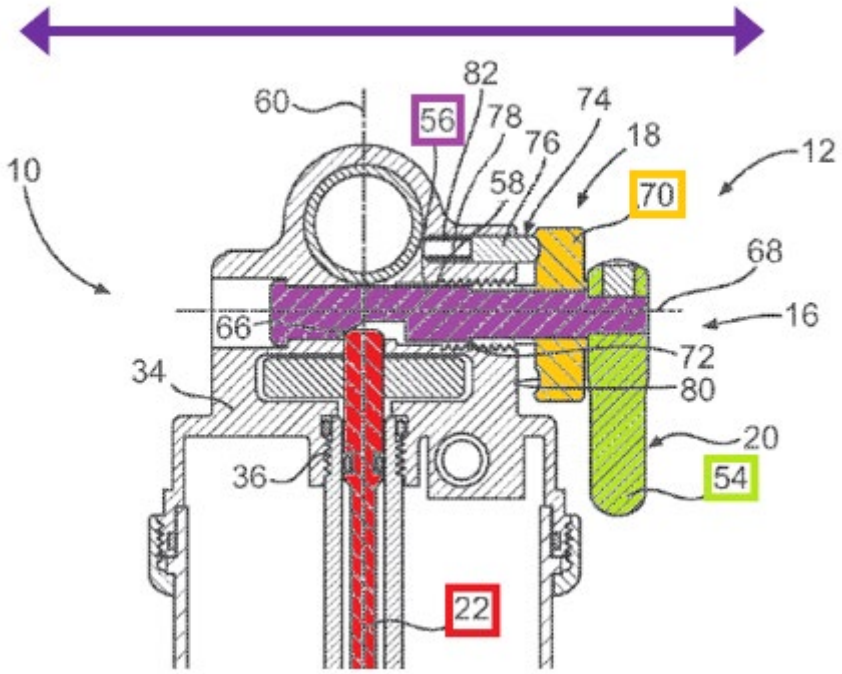
FIG. 5c

Ex. 1001 ('207 Patent), FIGS. 5a-5c, 5:14-47; Ex. 2016 (Parnell), ¶42.

As shown above, the cross-sectional shape of this embodiment of the camshaft **56** is rectangular at one end, although other shapes are possible. For

Figure 5b, this is just one possible cross-sectional radius **Y** from the surface **66** to the axis of rotation **68**. As can be seen in Figure 4, above, the cross-sectional radius **Y** may be larger or smaller, depending on where along the axial extent of the camshaft **56** the driver **22** contacts the surface **66**. Figure 6b shows a different cross-sectional radius **W** for the surface **66**. And while the surface **66** is sloped to provide different radii at different points along the axial direction of the camshaft **56**, the other surfaces **62**, **64** maintain the same radius from the axis of rotation **68** regardless of the point along the axial extent of the camshaft **56**. Ex. 1001 ('207 Patent), FIGS. 5a-5c, 6a-6c (disclosing that the only axial change for driver **22** occurs between Figures 5b and 6b when the axial position of the camshaft **56** changes, whereas the positions in Figures 5a/6a and 5c/6c show the same axial position for driver **22**); *see also id*., 5:14-47; Ex. 2016 (Parnell), ¶43.

What makes this user-adjustability possible is the adjuster assembly **18**. The valve actuating assembly **16** (which includes the camshaft **56**) is movable axially (purple arrow) by the adjuster assembly **18** and its threaded knob **70** (orange, below):



Ex. 1001 ('207 Patent), FIG. 1, 4:38-44. As the knob **70** is turned, the camshaft **56** is moved axially along the axis of rotation for the camshaft **56**, in a direction indicated by the annotated purple arrow above. *Id.*; Ex. 2016 (Parnell), ¶44.

Although the initial embodiments of the '207 Patent use axial movement of the camshaft **56** to adjust the damping characteristics when the valve actuating assembly **16** is in the adjustable position (in space), the '207 Patent is not limited to this particular structural movement. Ex. 2016 (Parnell), ¶45. For example, the

embodiment of inventions claimed in the '207 Patent disclosed in Figure 12 does not involve any axial movement of the camshaft. In this embodiment, a camshaft **140** is fixed axially and is used to select between three different positions. Ex. 1001 ('207 Patent), FIG. 1, 8:5-13. The adjuster assembly **18** includes a knob **150** that adjusts the damping characteristics when the selector **20** of the valve actuating assembly **16** is in the adjustable (third) position. *Id*., 8:13-19, 8:22-32. The '207 Patent explains how this is accomplished:

> When the lever **138** is rotated into the first two positions, the axial position of the driver **142** is determined by the angular position of the lever **138** and camshaft **140**. When lever **138** is rotated into the third position, the adjustable position, a shoulder **154** of the driver **142** contacts the knob **150** and further rotation of the lever **138** causes the driver **142** to disengage from the camshaft **140**. In this third position, the axial position of the driver **142** is determined by the axial position of the knob **150**, not by the cam surface. Accordingly, the rotation of the knob **150** allows the rider to adjust the damping characteristics of the third position without affecting the damping of the first and second positions.

Id., 8:20-32. Thus, the adjuster assembly **18** may adjust the valve actuating assembly **16** without axial movement of the camshaft **56**. Instead, the '207 Patent claims and discloses a system where the adjuster assembly **18** may adjust the valve actuating assembly **16** in one spatial position of the valve actuating assembly **16** in

such a way that the adjustment from the adjuster assembly **18** does not affect at least one other position of the valve actuating assembly **16**. *E.g.*, *id*., FIGS 1-6, 3:42-62; Ex. 2016 (Parnell), ¶46.

In sum, in each of the embodiments shown in Figures 1–10c and 12, a novel adjuster assembly provides a control scheme where at least ***one position of the relevant lever*** (or other valve actuating assembly) ***maintains the same damping characteristics*** when ***another position of the lever has associated damping characteristics adjusted via that novel adjuster assembly***. Ex. 2016 (Parnell), ¶¶40-47. No other prior art, alone or in combination, discloses these unique and beneficial valve assembly and adjuster assembly structures for providing preselected damping settings independent of user-selected damping settings.

B. No Claim Construction Is Needed for the '207 Patent Claims.

Patent Owner agrees that the '207 Patent's claim terms require no special claim construction for purposes of denying this Petition.[3]

[3] Despite its representations to the Board that no claim terms from the '207 Patent require construction, Petitioner has nevertheless sought construction of two claim phrases in the parallel District Court litigation. Ex. 2017, at Ex. A, 3. Patent Owner continues to maintain that these claim terms carry their ordinary meaning. *See id.*

C. The Level of a Person of Ordinary Skill in the Art Requires Experience in the Design of Vehicle Components or Like Technology.

Patent Owner believes a person of ordinary skill in the art ("POSITA") here is more appropriately connected to, and considers the particularities of, vehicle component and like design. Specifically, one of ordinary skill in the art at the time of the '207 Patent may include a person with a degree in Mechanical Engineering and approximately three years' experience in vehicle component design and like technology, or a Master's degree or higher in Mechanical Engineering with experience in design of vehicle components or like technology. *Id.*, ¶48.

Petitioner's generalist expert, who asserts experience in precision machine design, does not appear to meet these requirements. Petitioner offers no evidence for why "precision machine technology" is applicable to relevant knowledge and experience in the field of vehicle component design. Moreover, experience in bicycle maintenance (simply by owning a bicycle) is not the same as understanding how to design unique bicycle components like those claimed in the '207 Patent. In contrast, Patent Owner's technical expert (Dr. Kim Parnell) held a Ph.D. in Mechanical Engineering and had extensive experience in the design of vehicle components and/or like technology as of the '207 Patent's 2004 filing date. *Id.*, ¶¶4-13.

III. THE '207 PATENT CLAIMS ARE NOT ANTICIPATED BY FOX (GROUND I).

Fox (Exhibit 1005) is the very prior art that the '207 Patent disparages and improves upon. Petitioner's own expert agrees. Ex. 2019 (Slocum Depo.), p. 84, line 20 – p. 87, line 3; *id*., p. 93, line 14 – p. 95, line 9 (Petitioner's tendered expert stating that Fox includes all of the features of the prior art device discussed in the Background of the Invention section). The Board should summarily reject Petitioner's Ground I at least because Fox fails to disclose the recited "adjuster assembly" adjusting the damping characteristics of one position without affecting those of another position.

Specifically, Fox fails to disclose a plurality of positions of the valve actuating assembly, wherein one of the positions has damping characteristics that change ***via an adjuster assembly***. Petitioner does not even allege that Fox includes an adjuster assembly. Rather, Petitioner relies on the entirety of Fox's purported valve actuating assembly with no additions to simultaneously comprise the adjuster assembly. This interpretation of Fox runs exactly counter to the teachings of the '207 Patent and its prosecution.

A. The "Adjuster Assembly" Necessarily Includes More Than Fox's Purported "Valve Actuating Assembly".

Petitioner's position that the recited "valve actuating assembly" and "adjuster assembly" are the same structure is contrary to (1) the presumption that

distinct claim elements are distinct components of the patent invention, (2) the teachings of the specification, and (3) the express wording of the claims themselves.

First, as admitted by Petitioner, there is a presumption that distinct claim elements are distinct components of the patent invention. *See Becton, Dickinson & Co. v. Tyco Healthcare Grp., LP*, 616 F.3d 1249, 1254 (Fed. Cir. 2010). In *Becton*, the relevant elements were a "hinged arm" and a "spring means," and the claims stated that the "spring means" was "connected to" the "hinged arm." *Id*. at 1253. Further, the specification in *Becton* only included embodiments where the "spring means" was something more than merely the "hinged arm." *Id*. at 1254-55. Similarly, The *Becton* court found that the claims-at-issue would be nonsensical were these two separate claim elements to be construed to be applicable to a single part. *Id*. at 1255. Finally, the *Becton* court noted that the claims would have been obvious over the prior art were the "hinged arm" and a "spring means" to completely overlap in extent. *Id*.

In this matter, the terms "valve actuating assembly" and "adjuster assembly" must also be considered to be separate elements to at least some extent. These two terms are separately recited and, as a result, are presumed to be separate structures. *Id*. at 1254; Ex. 2016 (Parnell), ¶54.

The '207 Patent's specification supports the presumption. In each embodiment, the "adjuster assembly" includes ***something beyond*** what the "valve actuating assembly" provides. Ex. 2016 (Parnell), ¶54. Petitioner's argument relies on a single embodiment disclosed in the '207 Patent shown in Figures 7a-7c. Petition, 16-17. Petitioner correctly recognizes that the '207 Patent states that the "valve actuating assembly" may be integrated with the "adjuster assembly." Petition, 17 (citing Ex. 1001 ('207 Patent), 5:52-53, 3:53-57, 5:48-6:9, claim 6); Ex. 2016 (Parnell), ¶55. However, Petitioner ignores that, although the "valve actuating assembly" and the "adjuster assembly" overlap in physical extent, the "adjuster assembly" is different than the "valve actuating assembly." Ex. 2016 (Parnell), ¶55.

In particular, for the embodiment disclosed in Figures 7a–7c, the adjuster assembly **18** in Figures 1–6c "is replaced with threads **84** on the camshaft **56** that engage threads **86** on the first cylinder **24**." Ex. 1001 ('207 Patent), 5:49-52. These threads **84**, **86** (light blue boxes) allow the camshaft **56** (purple) to move axially when the lever **54** (green) is rotated through a complete revolution, as is shown in the difference in the positioning of the camshaft **56** in Figures 7b and 7c:

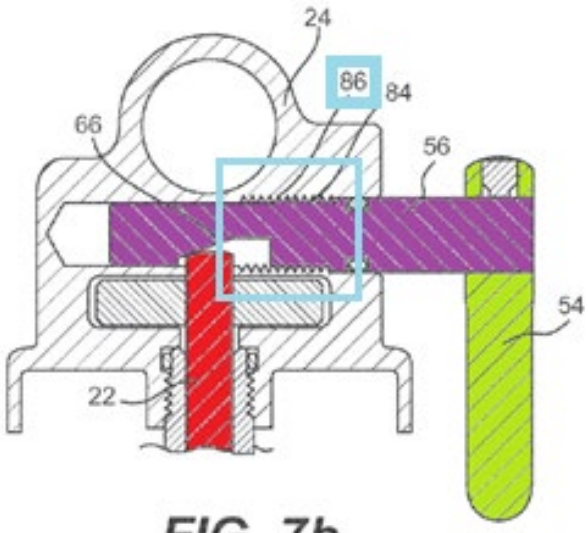


FIG. 7b

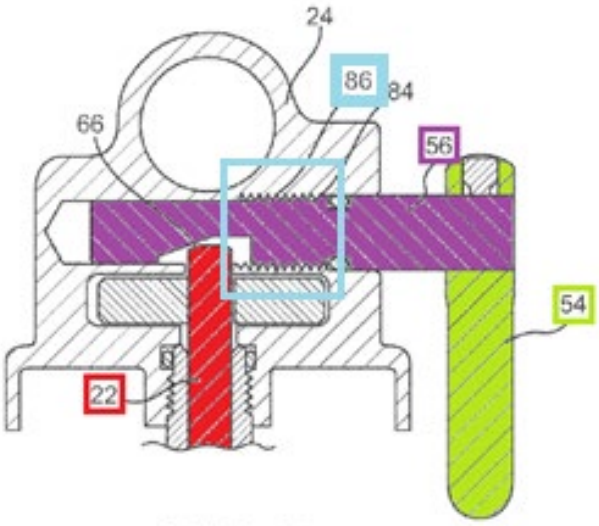


FIG. 7c

Id., FIGS. 7b, 7c, 5:48-6:9; Ex. 2016 (Parnell), ¶55. Thus, the specification does not support a complete overlap between the "valve actuating assembly" and "adjuster assembly" at least because the "adjuster assembly" includes more than the "valve actuating assembly." Ex. 2016 (Parnell), ¶55; *see also, e.g.*, Ex. 2019 (Slocum Depo.), p. 37, line 6 – p. 38, line 10. And this makes sense—the '207

Patent is an improvement upon devices having only a valve actuating assembly, such as the Fox prior art reference. *Id.*, ¶55.

In addition, like the situation in *Becton*, the wording of the claims themselves prohibit Petitioner's overbroad reading of the claims. Specifically, claim 1 recites "an adjuster assembly operatively connected to the valve actuating assembly." Similarly in *Becton*, the claim at issue "calls for a 'spring means connected to said hinged arm for urging said guard along said needle cannula toward' the tip of the needle." *Becton*, 616, F.3d at 1253. In such a case, the "valve actuating assembly" would need to be connected to itself, which is not physically possible. *Id*. at 1254. Although these parts may be integrally formed, as alleged by Petitioner, this forming integrally includes portions of the combined device that are specific to the "adjuster assembly." Ex. 2016 (Parnell), ¶56. In the example discussed above, the threads on the camshaft **56** are the portions of the combined device that are specific to the "adjuster assembly." *Id.*, ¶56.

Finally, were these two elements integrally formed without something additional specific to the "adjuster assembly," the '207 Patent claims would improperly read on the prior art that is specifically distinguished in the Background. Ex. 1001 ('207 Patent), 1:30-43; Ex. 2016 (Parnell), ¶57. Petitioner's tendered expert agrees that Fox merely includes a cam rigidly attached

to a lever, wherein the lever adjusts the axial position of an adjuster rod, such that one angular position of the lever corresponds to one axial position of an adjuster rod. This leads to only one setting of damping characteristic per position of the lever, which is the exact device disparaged in the Background of the Invention section of the '207 Patent. Ex. 2016 (Parnell), ¶57; Ex. 2019 (Slocum Depo.), p. 84, line 20 – p. 87, line 3; *id*., p. 93, line 14 – p. 95, line 9;. Said another way, Petitioner's reading of these claim terms as a single part does exactly what this prior art does. Thus, the recited "adjuster assembly" must be more than merely a known valve actuating assembly, *see Becton*, 616 F.3d at 1255, and like the claim terms in *Becton*, the recited "valve actuating assembly" and "adjuster assembly" cannot be the exact same structure. Ex. 2016 (Parnell), ¶57.

As a result, the Fox reference – which lacks any adjuster assembly at all – cannot anticipate. Ex. 2016 (Parnell), ¶58. Petitioner's anticipation arguments rely exclusively on this misplaced theory that the "valve actuating assembly" and "adjuster assembly" can be the exact same structure to meet the recited "adjuster assembly" elements of the '207 Patent's Independent Claim 1. Accordingly, the Board should reject Ground I in its entirety and confirm the patentability of the challenged '207 Patent claims.

B. The '207 Patent's Specification Narrows the Scope of the Recited Adjuster Assembly by Disparaging the Prior Art and Extolling the Benefits of the Functionality of the Adjuster Assembly.

There are additional reasons for rejecting Petitioner's misrepresentations about the scope of the '207 Patent, including statements in the '207 Patent that properly limit claim scope to at least some minimal structural distinctions between the "valve actuating assembly" and the "adjuster assembly".

"The proper claim construction is the meaning that the term would have to a person of ordinary skill in the art in question at the time of the invention, i.e., as of the effective filing date of the patent application." *Openwave Sys., Inc. v. Apple Inc.*, 808 F.3d 509, 513 (Fed. Cir. 2015) (internal quotation marks excluded) (citing *Phillips v. AWH Corp.*, 415 F.3d 1303, 1313 (Fed. Cir. 2005) (en banc)). In fact, "the specification may reveal an intentional disclaimer, or disavowal, of claim scope by the inventor, in which case the inventor's intention, as expressed in the specification, is regarded as dispositive." *Id*. (internal quotation marks omitted) (citing *Phillips*, 415 F.3d at 1316). In such a case, "a claim term may be clearly redefined without an explicit statement of redefinition." *Bell Atl. Network Servs.,* 262 F.3d 1258, 1268 (Fed. Cir. 2001).

For example, the Federal Circuit followed this approach in *Poly-America, L.P. v. API Indus., Inc.,* 839 F.3d 1131 (Fed. Cir. 2016), holding that the claim term "short seal" excluded seals that did not "extend[] inwardly from the interior

edge of the side seals," despite the relevant patent having no explicit disclaimer of any particular seal. *See id.* at 1135. The *Poly-America* Court found that the patent's specification disparaged prior art bags that did not have inwardly extending side seals while praising the use of such inwardly extending side seals as the claimed invention. *Id*. at 1136-37. Further, the *Poly-America* patent owner argued against prior art bags without inwardly extending side seals during prosecution, and the specification's embodiments all included inwardly extending side seals. *Id*. at 1137. These factors amounted to a disavowal.

Accordingly, a disclaimer of claim scope may be found when the specification disparages a prior art technique while extolling the benefits of the claimed invention, especially in view of the prosecution history and embodiments disclosed in the specification. In this case, it is amply clear from the specification of the '207 Patent, as well as from the relevant prosecution history and the embodiments disclosed in the '207 Patent, that the recited "adjuster assembly" excludes devices that have the same damping characteristics for each lever position.

The '207 Patent clearly excludes Petitioner's overbroad claim interpretation that serves as the basis for its Ground I. Specifically, the '207 Patent's specification disparaged Fox's lever/cam and adjuster rod combination, and in fact, specifically improved upon that design using a novel adjuster assembly.

As discussed in detail above, the Background of the Invention section of the '207 Patent's specification discusses problems that accompanied the prior art, giving an example of "[a] typical design for a damping adjuster [that] uses an adjuster rod that extends down the center of the piston shaft and engages the valve mechanism or performs the function of the valve mechanism." Ex. 1001 ('207 Patent), 1:30-33. In the prior art, [a]djustment is commonly made … [when] the adjuster rod is moved axially (up or down) to alter damping" via a camshaft connected to a lever. *Id*., 1:33-38. In disparaging this prior art system, the '207 Patent specification explains that "[o]ne problem associated with this configuration is that any given angular position of the lever/cam corresponds to exactly one position of the adjuster rod" and, therefore, exactly one setting of damping characteristics. Further, this system having only a lever/cam and an adjuster rod "limits the ability of the rider to customize the damping characteristics of the suspension system to suit the terrain or the rider's particular riding style." Ex. 1001 ('207 Patent), 1:38-43; Ex. 2016 (Parnell), ¶60.

On the other hand, the '207 Patent solves this problem with direct correspondence between lever positions and damping characteristics by explaining that "[t]he present invention relates to … an actuator apparatus for controlling a valve mechanism of a suspension system that includes … an adjuster assembly for adjusting the damping characteristics of at least one … rider-selectable position[]."

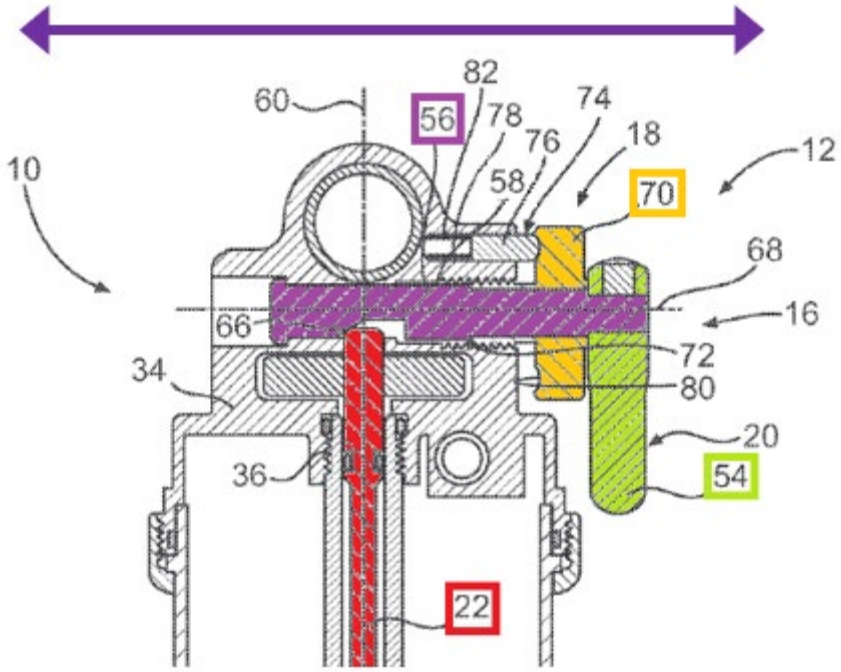
Ex. 1001 (‘207 Patent), 1:7-13. The adjuster, therefore, fills the role of changing the damping characteristics for the desired positions of the lever. Ex. 2016 (Parnell), ¶62. For example, in the first embodiment shown in Figures 1-6c, the adjuster assembly **18** moves the camshaft **56** axially, thereby adjusting the damping characteristic of the adjustable position without affecting the damping characteristics of the open position. Ex. 1001 (‘207 Patent), 15:14-47; Ex. 2016 (Parnell), ¶63. Accordingly, the ‘207 Patent’s specification disparages prior art merely using a lever/cam and adjuster rod system, instead proposing the use of an additional adjuster assembly to adjust the lever/cam in an adjustable position. Ex. 1001 (‘207 Patent), 17-13; Ex. 2016 (Parnell), ¶63.

C. Each of the Disclosed Embodiments of the ‘207 Patent Supports the Adjuster Assembly Being More Than a Lever/Cam and Adjuster Rod System.

In each embodiment disclosed in the ‘207 Patent, the adjuster assembly provides additional physical structure that departs from the typical functionality of a prior art lever/cam and adjuster rod system. Ex. 2016 (Parnell), ¶64. In particular, there are four embodiments discussed in the ‘207 Patent’s specification, claimed in the ‘207 Patent claims, and shown in the following Figures: (1) Figures 1–6c; (2) Figure 7a–7c; (3) Figures 8a–10c; and (4) Figure 12. In each case, an additional structure allows for the adjustment of the damping

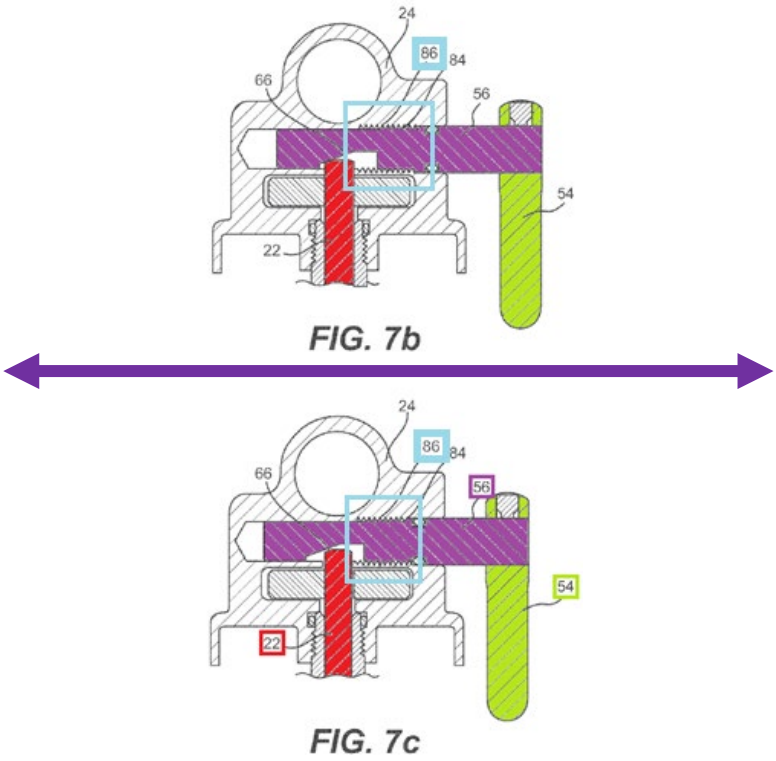
characteristics of one position of the valve actuating assembly without adjusting the damping characteristics of a second position. *Id.*, ¶64.

First, the embodiment shown in Figures 1–6c includes an adjuster assembly **18** having a knob **70** (yellow) that moves the camshaft **56** (purple) axially (in the direction shown by the purple arrow) to affect the changes in damping characteristics for the adjustable position:



Id., ¶65. In the adjustable position of the lever **54**, the knob **70** will move the camshaft **56** axially, thereby adjusting the driver **22** up and down, depending on where the driver **22** contacts the camshaft **56**. Thus, the knob **70** and its ability to move the camshaft **56** axially are the features that are more than a mere lever/cam and adjuster rod system discussed in the prior art. *Id.*

The other embodiments have similar results using different adjuster assemblies. *Id.*, ¶66. For the embodiment shown in Figures 7a–7c, threads **84** and **86** (light blue box) work together to move the camshaft **56** axially (in the direction shown by the purple arrow, below):



Id. A complete revolution of the lever **54** moves the camshaft **56** axially by one thread pitch in or out of the first cylinder **24**, depending on the direction of rotation of the lever **54**. *Id.*

For the embodiment shown in Figures 8a–10c, the adjuster assembly **18** reduces the length of the control cable **88** (orange). Ex. 1001 ('207 Patent), 6:10-40. By reducing the length, the portion of the camshaft **94** (purple) that contacts

the driver **22** (red) when the camshaft **94** is in the adjustable position is shifted by the amount of length reduction, as illustrated below in Figures 9a and 9b:

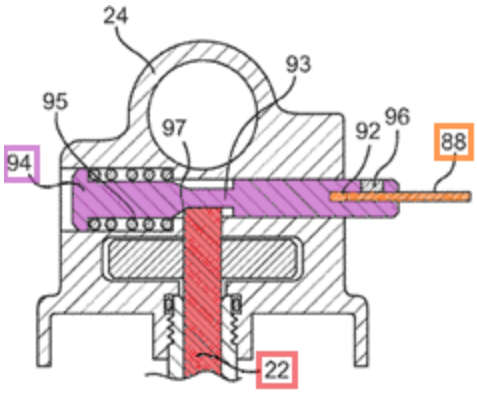


FIG. 9a

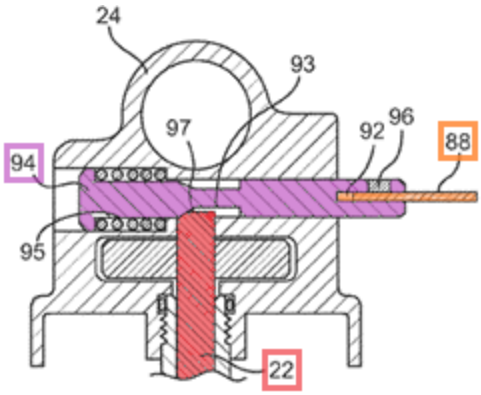


FIG. 9b

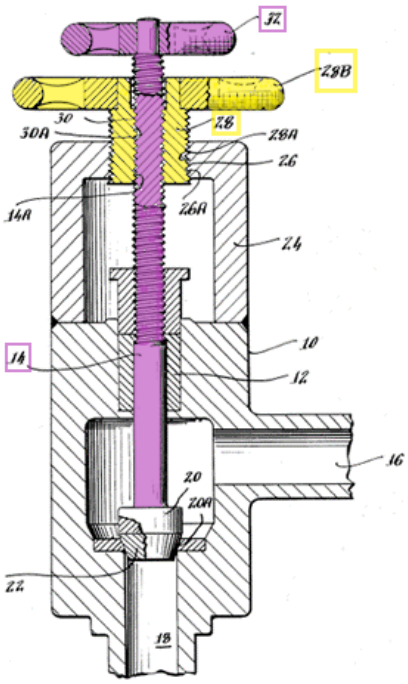
Id.; Ex. 2016 (Parnell), ¶67. Finally, the embodiment shown in Figure 12 includes knob **150**, which adjusts damping characteristics by interacting with the driver **22** directly, respectively. Ex. 2016 (Parnell), ¶67.

Therefore, each of the above-discussed embodiments of the '207 Patent requires an ***additional structure*** to serve as an adjuster assembly for adjustable damping characteristics. Fox has no such additional structure. *Id.*, ¶68.

D. The Prosecution History Further Supports a Finding That the Adjuster Assembly Must Include More Structure Than the Prior Art Lever/Cam and Adjuster Rod System.

During prosecution of the application that matured into the '207 Patent, the Examiner repeatedly rejected the claims in view of U.S. Patent No. 4,488,704 to Wicker ("Wicker"). *See* Ex. 1004 ('207 Patent Prosecution History), 90; Ex. 2015,

Wicker. An annotated figure from Wicker is reproduced below, labeling the portions of Wicker the Examiner alleged fulfilled the recited valve actuating assembly (32, 14 (purple)) and adjuster assembly (28B, 28 (yellow)):



Patent Owner repeatedly and consistently responded that Wicker fails to disclose the recited adjuster assembly because Wicker's device merely included a fine-tuning adjuster (28B, 28 (yellow)) that adjusts the damping characteristics of ***each*** position of the valve actuating assembly (32, 14 (purple)), rather than adjusting the damping characteristics of one position while not affecting the damping characteristics of another position. Ex. 1004 ('207 Patent Prosecution History), 86-87, 30, 8; Ex. 2016 (Parnell), ¶¶69-70.

Accordingly, Patent Owner distinguished devices that lack the necessary adjuster assembly's structure and function of adjusting one position's damping characteristics independent of another position's damping characteristics. Said another way, a device that merely adjusts damping characteristics with the turn of a lever (or two levers/knobs dependent on each other like Wicker) are not within the scope of the recited "adjuster assembly." Ex. 2016 (Parnell), ¶72. Thus, like the claims in *Poly-America*, the prosecution of the patent-at-issue supports a narrowed understanding of the claims to exclude the disparaged prior art.

In sum, the '207 Patent's statements disparaging the prior art lever/cam and adjuster rod systems, its statements extolling the virtues of an adjuster assembly that can adjust positions independently, its disclosed embodiments, and its prosecution history all support an understanding of the recited "adjuster assembly" that excludes prior art lever/cam and adjuster rod systems. *Id.*, ¶73. As a result, Petitioner's reading of Fox as anticipatory prior art cannot be correct, and the Board must wholly reject Ground I.

IV. THE '207 PATENT CLAIMS ARE NOT RENDERED OBVIOUS BY FOX IN VIEW OF JP'279 AND NAGAI (GROUND II).

A. Fox in View JP'279 and Nagai Fails to Disclose the Recited "Adjuster Assembly".

Not only does Fox fail to disclose the recited "adjuster assembly" as discussed above, Petitioner's purported combination of Fox with JP'279 and Nagai

similarly fails to render obvious this limitation. Even if a POSITA were to make the proffered combination, it would not result in the inventions claimed in the '207 Patent. But a POSITA would not do so at least because there would be no benefit to the proposed combination. Moreover, Petitioner fails to provide any technically or legally sufficient rationale for a POSITA to make the alleged combination. *Id.*, ¶75. As a result, Petitioner fails to show obviousness of any of the challenged '207 Patent claims, warranting rejection of Ground II in its entirety.

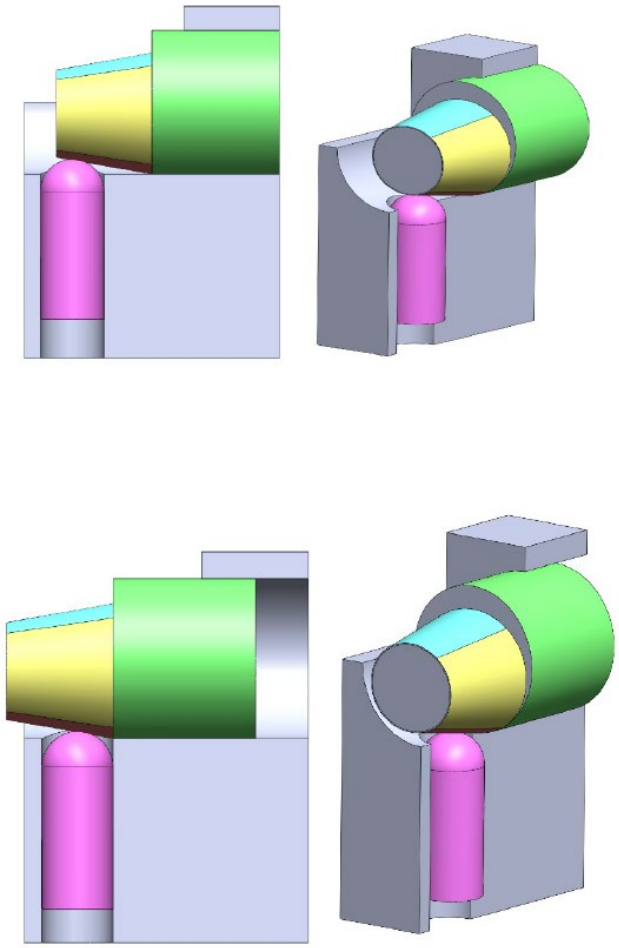
1. Fox in Combination with JP'279 and/or Nagai Fails to Disclose the Claimed Adjuster Assembly

As already discussed, the Fox prior art reference fails to disclose the recited "adjuster assembly." Instead, Fox merely discloses what was disparaged in the '207 Patent's background, which is a suspension system including only a lever/cam and adjuster rod system to adjust the damping characteristics. *Id.*, ¶76. The additions of JP'279 and/or Nagai do not resolve this missing element of the '207 Patent claims.

Petitioner alleges that a POSITA would have modified Fox to include a separate adjuster assembly by placing a tapered surface, also referred to herein as an inclined plane, on Fox's camshaft. Petition, 48-49. However, Petitioner's proposed combination would fail to include the recited "adjuster assembly" because, like the Wicker prior art considered and overcome during prosecution of

the '207 Patent, the resulting combination would not include a means of independent adjustment of damping characteristics. Instead, the purported combination remains merely a lever/cam and adjuster rod system because there is no means for independent adjustment. Ex. 2016 (Parnell), ¶77. Indeed, Petitioner's proffered expert has admitted that the structure of JP'279 and Nagai is no different than the prior art already considered and overcome during prosecution of the '207 Patent. *See* Ex. 2019 (Slocum Depo.), p. 102, line 14 – p. 103, line 3; *id*., p. 108, line 21 – p. 110, line 15.

Specifically, Petitioner's alleged combination of Fox and JP'279 would result in a camshaft having an inclined surface ***over the entire device, and not limited to one position of the valve actuating assembly***. *See, e.g.*, Petition, 50; Ex. 1003 (Slocum), ¶¶93-96; Ex. 2016 (Parnell), ¶78. In Petitioner's examples of the alleged combination, the entire surface of the camshaft is tapered. Ex. 1003 (Slocum), page 67. This hindsight-based alteration would result in a change of damping characteristics ***in all positions*** of Fox's purported valve actuating assembly whenever the axial position of Fox's camshaft is changed. Ex. 2016 (Parnell), ¶78. Petitioner's tendered expert's example, reproduced below, show what appears to be the region Petitioner's expert alleges would be the "lockout" position (which is not a claimed "position" of the valve actuating assembly in any event, as already discussed above):



As can be seen in these contrived examples,[4] axial movement changes the vertical positioning of the related adjuster rod, thereby changing the damping characteristics. Accordingly, Fox's contrived combination fails to disclose the

[4] Petitioner's tendered expert admits that these models were his own creation and not found in JP'279. Ex. 2019 (Slocum Depo.), p. 139, line 22 – p. 140, line 6.

recited "adjuster assembly" at least because all positions would be adjusted with any axial movement. *Id.*, ¶79. Accordingly, Ground II fails.[5]

2. The Petition Fails to Provide a Valid Motivation to Combine Fox With JP'279.

Petitioner provides two wholly-deficient motivations to combine: (1) JP'279 provides "fine adjustment of the compression damping settings" (Petition, 49; *see also* Petition, 37-38), and (2) the combination "would have involved only a combination of known prior-art elements according to known methods to yield predictable results" (Petition, 41). For the first proffered motivation, Petitioner's rationale is premised on a misunderstanding of the art and an overstatement of what may motivate a POSITA. For the second, Petitioner fails to show that the combination would have included known prior art element and methods. Ex. 2016

[5] Nagai is offered by Petitioner as a further modifying reference to Fox in view of JP'279, but does not provide any additional structure or elements that cure the deficiencies of the Fox in view of JP'279 combination. Ex. 2016 (Parnell), ¶¶74-76. Nagai includes a stopper or limiting means that operates to limit the extent of rotation, but does not disclose any of the missing limitations or supply any motivations to combine any of the references in this matter. *Id.*, ¶¶74-75.

(Parnell), ¶80. Accordingly, the Board should reject Ground II's proffered reasoning.

a. JP'279 fails to provide any of the purported benefits of fine tuning.

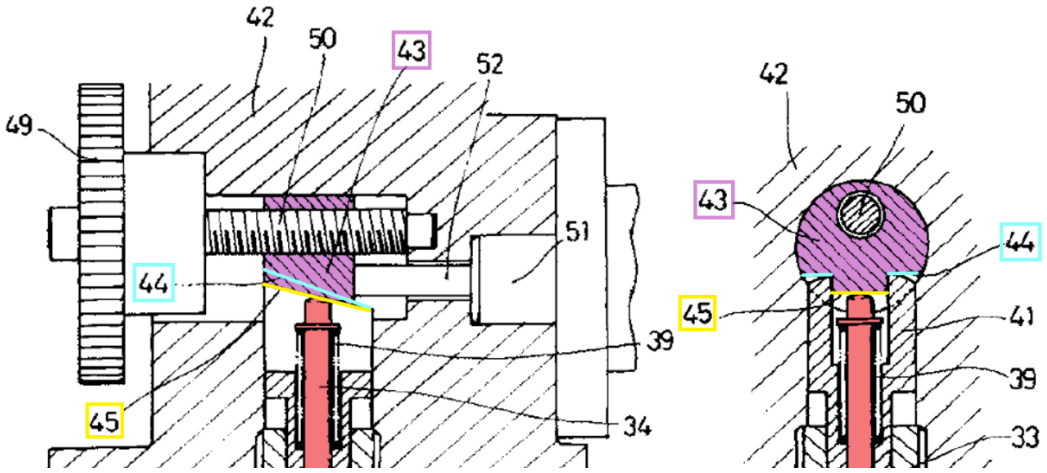
The premise that JP'279 provides finer adjustments than Fox is false and without any basis in the prior art references or in the knowledge of a POSITA. *Id.*, ¶81.

As an initial matter, the concept of "fine" tuning is a relative term, such that "fine" tuning only exists in reference to a related "coarse" tuning. "Coarse" tuning means that the changes made by tuning something occurs at a greater rate than a related "fine" tuning. *Id.*, ¶82. Petitioner's tendered expert agrees that fine adjustments are those adjustments made between coarse adjustments. Ex. 2019 (Slocum Depo.), p. 70, lines 7 to 17. Both Wicker and JP'279 discuss these same concepts.

Wicker defines two different screw-based valve adjusters relative to each other: one adjuster uses "a fine thread (many threads per inch)" and another uses "a coarse thread (fewer threads per inch)." Ex. 2015, 1:33-40. Wicker explains that "a fine thread requires that the actuator be rotated many times for any substantial axial displacement of the valve plug stem while the … coarse thread only requires a few rotations of the actuator for the same degree of axial displacement." *Id*.,

1:49-53. Thus, Wicker makes clear that the "fine" adjuster is only fine relative to the "coarse" adjuster. Ex. 2016 (Parnell), ¶83.

The same is true in JP'279. Specifically, JP'279 includes two surfaces **44** (light blue), **45** (yellow) on its slider **43** (purple), shown below:

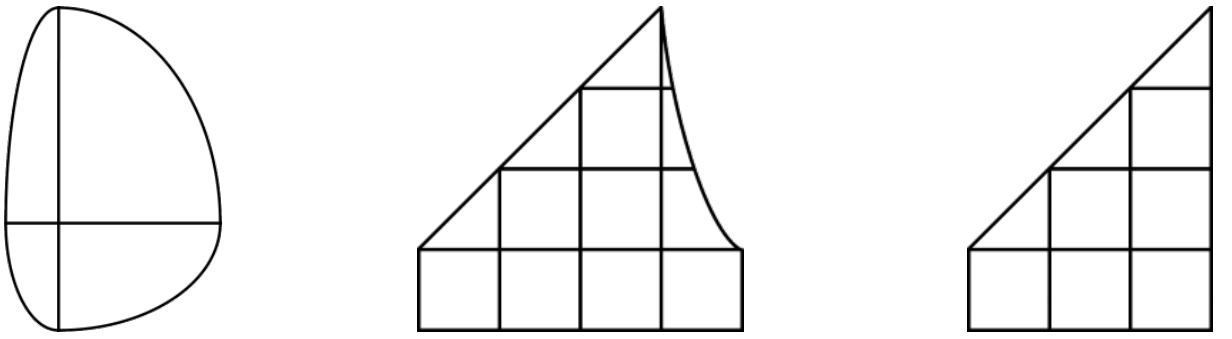


Ex. 1007, FIGs. 4, 5; Ex. 2016 (Parnell), ¶84. Surface **44** is used to adjust damping characteristics when the damper is compressing, and surface **45** is used to adjust damping characteristics when the damper is extending. Ex. 1007, at 5, 6. As can be seen, surface **44** has a greater slope than surface **45**. *Id*. at 6. Accordingly, surface **45** provides "fine adjustment amounts" relative to surface **46** because of the lesser slope. *See* Ex. 2019 (Slocum Depo.), p. 102, line 14 – p. 103, line 3; *id*., p. 113, lines 4 – 19; *id*., p. 117, lines 4 – 19. Just like in Wicker, the concept of "fine adjustment" is relative to another adjuster present on the same device. A POSITA would understand that this "fine adjustment" is not a pronouncement of

superiority ***relative to other adjusters not considered therein***. Ex. 2016 (Parnell), ¶84.

Next, a cam and an inclined plane are ***each*** capable of providing the exact same, or different, levels of tuning, depending on the relative sizes of the device being compared. *Id.*, ¶85. In fact, if a cam that has a linear increase in its radius is unrolled so that its outer surface is in a straight line, the exact same level of tuning can be provided as would an inclined plane (as in JP'279). This is shown in the diagram below, with a cam on the left, the cam's output at an adjuster rod in the center, and an inclined plane on the right:

Cam Shape **Cam Output at Adjuster Rod** **Inclined Plane Output**



Ex. 2016 (Parnell), ¶85. As can be seen, the cam output in the center shows a linear change in height, providing the same linear "fine" or "coarse" tuning as the inclined plane on the right. *Id.*, ¶85. Thus, there is no inherent benefit to using one adjuster over the other because each may be designed to provide the exact same

output at the adjuster rod. Said another way, neither a cam nor an inclined plane provides an inherently finer level of adjustment than the other. *Id.*

Further, as can be seen in the above illustrations of how these adjusters operate to move an adjuster rod, ***the size and shape*** of the cam and the slider directly affect the level of fineness. *Id.*, ¶86. Thus, although one adjuster may be designed to be finer than the other, the sizes of Fox's camshaft **34** and JP'279's slider **43** (and the slope of tapered surface **44**) ***are unstated***. As a result, ***neither Petitioner nor Petitioner's tendered expert nor anyone else knows*** what the relative levels of fineness of Fox's and JP'279's adjusters would be. *Id.*, ¶86. *See* Ex. 2019 (Slocum Depo.), p. 102, line 14 – p. 103, line 3; *id*., p. 117, lines 18 – 21, *id*., p. 120, lines 15 – 23; *id*., p. 124, line 21 – p. 125, line 3. In any event, either adjuster could be made to provide a "finer" adjustability than the other. *Id.*

Petitioner makes much ado about JP'279's statement that "fine adjustment amounts can be achieved at the needle portion." JP'279, at 6. However, it is clear that this is not a pronouncement that JP'279's slider provides a special or elevated amount of fine tuning, as discussed above. Ex. 2016 (Parnell), ¶87. Instead, the entire point of JP'279 is that the device can provide amounts of adjustments to multiple characteristics within JP'279's device. *See, e.g*., Ex. 1007 (JP'279), at 3, 6. The different slopes in JP'279 allow for one of its two adjuster rods to have

finer tuning by having a smaller slope. Ex. 2016 (Parnell), ¶87. Thus, Petitioner and Petitioner's tendered expert's focus on this term is entirely without merit.

Patent Owner notes that Petitioner repeats this concept of "fine" tuning over and over throughout the Petition, but such a statement is merely Petitioner focusing on words taken out of context in an effort to craft a reason why a POSITA would recreate the 207 Patents' claims from the claims themselves.

b. The combination of Fox and JP'279 would not have involved a combination of unknown prior-art elements according to unknown methods and would not yield predictable results.

Without the concept of JP'279 providing a finer range than what is available to Fox without modification, the Petition's only remaining motivation to combine is Petitioner's conclusory statement regarding a *KSR*-type catchall motivation that the combination would be using only known elements according to known methods. Petition, 40-41; Ex. 2016 (Parnell), ¶89. However, the record evidence does not support Petitioner's conclusory statements. The use of an inclined plane on a camshaft ***was not known***. Using an inclined plane on only a portion of a camshaft ***was not known***. Arranging these two different movement systems at perpendicular angles, especially when the surface of the camshaft curves, ***was not known***. Using two different adjustment methodologies together to adjust an adjuster rod ***was not known***. Moving a camshaft axially (i.e., along the axis of

rotation of the camshaft) ***was not known***. Ex. 2016 (Parnell), ¶89; Ex. 2019 (Slocum Depo.), p. 195, line 14 – p. 202, line 11.

Further, Petitioner has provided no support for this contention. Petition, 40-41. Petitioner's sole citation is to Paragraph 82 of Petitioner's tendered expert's Declaration (Ex. 1003). Here, we find a nearly cut-and-paste rehashing of what is stated in the Petition with only the citations to Petitioner's expert's Declaration and to caselaw removed. *See also* Ex. 1003, ¶125 (same unsupported, conclusory statements regarding Yi and JP'279). Petitioner's tendered expert restates, without explanation, that ***unspecified*** elements and methods were known and predictable. And Petitioner's expert again predicates the combination as based on the benefit of fine tuning. As discussed above, a POSITA would not believe that the addition of an inclined plane onto the outer surface of Fox's camshaft **34** would provide any additional fineness to the device's adjustability. *See also* Ex. 2016 (Parnell), ¶90.

Petitioner's tendered expert does not state any additional rationale or reason why a POSITA would make Petitioner's alleged combination. At best, Petitioner's expert states that a POSITA ***could have made*** the combination, not that a POSITA ***would have made*** the same. Ex. 2016 (Parnell), ¶91. "Obviousness concerns whether a skilled artisan not only could have made but would have been motivated to make the combinations or modifications of prior art to arrive at the claimed invention." *Belden Inc. v. Berk-Tek LLC*, 805 F.3d 1064, 1073 (Fed. Cir. 2015)

(emphasis removed). Further, the combination would not have been predictable. Fox places its adjustment means within the eyelet of a shock absorber. The size and shape of the eyelet is tightly controlled because the length of the shock is very important to performance, and the width of the eyelet needs to fit within the parameters of many different vehicles having their own size requirements. As a result, a POSITA would not know if a reimagined eyelet, needed to fit Fox's new structures, would work for its intended use within a related vehicle. Ex. 2016 (Parnell), ¶92.

3. The Proposed Combination of Fox and JP'279 Improperly Relies on Hindsight.

Petitioner's proposed combination of Fox and JP'279 improperly relies upon alterations that are neither present in nor suggested by these references. *Id.*, ¶93. Further, there is no suggestion, outside of the statements of Petitioner's tendered expert, that these references would be combined by a POSITA as suggested by the Petition. As a result, the only avenue for Petitioner to arrive at the claimed invention is improper hindsight. *Id.*

The combination of Fox and JP'279, as alleged by Petitioner, requires modifying Fox's camshaft **34** to include an inclined plane that is arranged perpendicular to the surface of the camshaft **34.** Ex. 1003, ¶¶95-96; Ex. 2016 (Parnell), ¶94. However, JP'279 does not include an inclined plane surface placed

into the curved exterior surface of a camshaft, or any other curved surface. Instead, JP'279 is a linearly moving inclined plane used to move an adjuster rod up and down, much like the prior art that is disparaged in the Background of the '207 Patent. *See* Ex. 2019 (Slocum Depo.), p. 102, line 14 – p. 103, line 3; *id*., p. 108, line 21 – p. 110, line 15. No other reference teaches or suggests such a modification. Ex. 2016 (Parnell), ¶94. Further, no reference on record suggests arranging the inclined plane ***tangentially*** to the curvature of the cam. Accordingly, no prior art reference suggests the complicated shaping of the camshaft **34** suggested by Petitioner. *Id.* Instead, Petitioner alleges this new shape without any basis in the prior art. This is classic hindsight.

Similarly, and to the extent that this is alleged by Petitioner, nothing in JP'279 suggests adding an inclined plane surface to only a portion of Fox's camshaft **34**. Fox's cam includes a continuous surface, which in no way suggests altering any portion thereof, let alone ***only*** a portion thereof. *Id.*, ¶95. Further, JP'279 has no suggestion that its slider **43** could be integrated into a cam's external surface. Nor does JP'279 suggest that the tapered part **44** of the slider **43** may be used with a cam surface, arranged ***tangentially*** to the curvature of the cam. *Id*.

Further, Patent Owner notes that the addition of an inclined plane to the curved end surface of a cam shape would be difficult to manufacture. Petitioner provides no evidence that such a shape could even be machined into or onto the

cam profile. *Id.*, ¶96. Petitioner states, without evidence or explanation, that a POSITA would know how to do so. Even if this were true, mere knowledge does not imply obviousness. In any event, the increased cost of producing such a part with these complex geometries and extra production steps would be very high, and certainly much, much higher than either the Fox or JP'279 systems. *Id.*

Finally, and most importantly, no prior art reference on record suggests that any suspension system requires two different, linear means for moving the adjuster rod up and down. Furthermore, no prior art reference on record suggests that a POSITA ***would*** combine these two different but essentially equivalent adjustment means to arrange the tapered surface **43** of JP'279 perpendicular to the ***curved surface*** of Fox's camshaft. *Id.*, ¶97.

In short, no reference discloses or even suggests any of Petitioner's convoluted alterations discussed above ***would be*** accomplished by a POSITA. *Id.*, ¶98.

It bears repeating that ***the only support for any of these contentions*** is Petitioner's tendered expert. For Claim Term 1.2 (Petition, 48-51), Petitioner cites only to Paragraphs 81 and 91-98 of Petitioner's expert's Declaration (Ex. 1003). Petitioner's entire argument is premised on their paid expert recreating the '207 Patent claims, using those very claims as a guide. This cobbling together of different solutions in the art without any cognizable rationale or suggestion in the

art is simply improper. *See Cheese Sys., Inc. v. Tetra Pak Cheese & Powder Sys., Inc.*, 725 F.3d 1341, 1352 (Fed. Cir. 2013) ("Obviousness 'cannot be based on the hindsight combination of components selectively culled from the prior art to fit the parameters of the patented invention.'"); *see also Endo Pharmaceuticals Inc. v. Depomed, Inc.*, IPR2014-00656, Paper 66, at 25 (PTAB Sept. 21, 2015); *In re Cyclobenzaprine Hydrochloride Extended-Release Capsule Patent Litigation*, 676 F.3d 1063, 1071 (Fed. Cir. 2012) (describing a proposed combination of known elements without direction or guidance regarding "which of many possible choices is likely to be successful" as involving impermissible hindsight) (quoting *In re Kubin*, 561 F.3d 1351, 1359 (Fed. Cir. 2009)).

Accordingly, the Board should reject Ground II of the Petition as entirely premised on hindsight, exacerbated by Petitioner's utter lack of a motivation to combine.

V. THE '207 PATENT CLAIMS ARE NOT RENDERED OBVIOUS BY YI IN VIEW OF JP'279 AND/OR NAGAI.

A. Yi in View of JP'279 and/or Nagai Fails to Disclose the Claimed Adjuster Assembly.

Just like Fox (Ex. 1005), Yi (Ex. 1006) fails to disclose the recited "adjuster assembly." Instead, Yi merely discloses what was disparaged in the '207 Patent's Background, which is a suspension system including only a lever **201**/camshaft **2** and an adjuster rod **10** to adjust the damping characteristics of Yi's shock

absorber **6**. Ex. 2016 (Parnell), ¶100. Petitioner's tendered expert agrees. Ex. 2019 (Slocum Depo.), p. 171, line 7 – p. 174, line 7; *id*., p. 172, line 17 – p. 174, line 7; *id*., p. 184, line 17 – p. 187, line 3. The addition of JP'279 and/or Nagai do not resolve this missing element of the challenged '207 Patent claims. *Id.*

Similar to its failed Ground II combination, Petitioner alleges that a POSITA would have modified Yi to include a separate adjuster assembly by placing a tapered surface on Yi's camshaft **2**. Petition, 71–75. However, Petitioner's proposed combination fails to include the recited "adjuster assembly" because, like the previously considered Wicker, the resulting combination still does not include a means of independent adjustment of damping characteristics. Instead, the combination remains merely a lever/cam and adjuster rod system with no means for independent adjustment.

Specifically, the combination of Yi and JP'279, would result in a camshaft having an inclined surface ***over the entire device, and not limited to one position of the valve actuating assembly***. *See, e.g.*, Petition, 85; Ex. 1003 (Slocum), ¶120 (Petitioner's tendered expert stating that "[t]he solid model images I created above of tapered cylindrical surface cams illustrate how a POSITA would implement this combination to achieve finely tunable cam action."); Ex. 2016 (Parnell), ¶102. As discussed above, the entire surface of the camshaft includes an inclined plane, and

this hindsight-based alteration would result in a change of damping characteristics ***in all positions*** of Yi's purported valve actuating assembly whenever the axial position of Yi's camshaft **2** is changed. Accordingly, even Petitioner's contrived combination would not disclose the recited "adjuster assembly" at least because all positions would be adjusted with any axial movement. Ex. 2016 (Parnell), ¶102.

B. The Petition Fails to Provide a Valid Motivation to Combine Yi With JP'279.

Identical to its proposed Fox combination, Petitioner again provides two wholly-deficient motivations to combine: (1) JP'279 would allegedly allow for purported fine adjustment of the compression damping settings (Petition, 83-84; *see also* Petition, 71–75) and (2) the combination would allegedly be "mere combinations of known prior-art elements according to known methods to yield predictable results." Petition, 74. Petitioner's arguments have the same failings as discussed above. Specifically, Petitioner's rationale is again premised on a misunderstanding of the art and an overstatement of what may motivate a POSITA and, further, fails to show that the combination would have included known prior

art element and methods. Accordingly, the Board should reject Ground III as similarly flawed compared to Ground II.[6]

1. JP'279 Again Fails to Provide Any of the Purported Benefits of Fine Tuning and May Cover the Same Range and in the Same Way as Fox.

Again, the premise that JP'279 provides finer adjustments than what could be offered by Yi is false and without any basis in the prior art references or in the knowledge of a POSITA. Ex. 2016 (Parnell), ¶103. Thus, for all of the reasons previously discussed, JP'279 does not suggest a method or device that provides objectively better, or "finer," tuning ability than Yi.

First, as explained before, the concept of "fine" tuning is a relative term, such that "fine" tuning only exists in reference to a related "coarse" tuning. *Id.*, ¶104. So, Petitioner's emphasis on the words "fine adjustment" is, at best, misguided because it does not mean anything without reference to a more coarse adjustment.

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[6] As with Ground II, Nagai is offered by Petitioner as a further modifying reference to Yi in view of JP'279, but does not provide any additional structure, elements, or motivations to combine that could cure the deficiencies of the Yi in view of JP'279 combination. Ex. 2016 (Parnell), ¶100.

Second, a cam (such as that in Yi) and an inclined plane are ***each*** capable of providing the exact same, or different, levels of tuning, depending on the relative sizes of the device being compared. Thus, there is no benefit to using one adjuster over the other because each may be designed to provide the exact same level of adjustability. Said another way, neither device provides an inherently finer level of adjustment than the other. *Id.*, ¶105.

Further, ***the size*** of the cam and the slider directly affect the level of fineness. Thus, although one adjuster may be designed to be finer than the other, the sizes of Yi's camshaft **2** and JP'279's slider **43** (and the slope of tapered surface **44**) ***are unstated***. As a result, ***neither Petitioner nor Petitioner's tendered expert nor anyone else knows*** what the relative levels of fineness of Yi's and JP'279's adjusters would be. *See* Ex. 2019 (Slocum Depo.), p. 102, line 14 – p. 103, line 3; *id*., p. 117, lines 18 – 21; *id*., p. 120, lines 15 – 23; *id*., p. 124, line 21 – p. 125, line 3; *id*., 171, lines 7 – 18; *id*., p. 181, lines 6 – 15. In any event, either adjuster could be made to provide a "finer" adjustability than the other. Ex. 2016 (Parnell), ¶106.

In the end, the Petition bases its obvious combinations on words taken out of context in an effort to craft a reason why a POSITA would recreate the 207 Patent's claims from the claims themselves. The words do not support Petitioner's combination, however, leaving Petitioner without a technically or legally

cognizable motivation to combine Yi and JP'279. For good reason too—a POSITA simply would not have made this proffered, slapdash combination. *Id.*, ¶107.

2. The Combination of Yi and JP'279 Would Not Have Involved a Combination of Unknown Prior Art Elements According to Unknown methods and Would Not Yield Predictable Results.

Without the concept of JP'279 providing a finer range than what is available to Yi without modification, the Petition's only remaining motivation to combine is Petitioner's conclusory statement regarding a *KSR*-type catchall motivation that the combination would be using only known elements according to known methods. Petition, 74-75. However, once again, the record evidence does not support these conclusory statements. The use of an inclined plane on a camshaft ***was not known***. Using an inclined plane on only a portion of a camshaft ***was not known***. Arranging these two different movement systems at perpendicular angles, ***especially*** when the surface of the camshaft ***curves*** such that the relative angles would not be commonplace in any event, ***was not known***. Using two different adjustment methodologies together to move an adjuster rod ***was not known***. Moving a camshaft axially (i.e., along the axis of rotation of the camshaft) ***was not known***. Ex. 2016 (Parnell), ¶108; Ex. 2019 (Slocum Depo.), p. 195, line 14 – p. 202, line 11.

Further, like the failed combination of Fox and JP'279, Petitioner has provided no support for this contention. Petition, 74-75. Petitioner's sole citation is to Paragraph 125 of Petitioner's tendered expert's Declaration (Ex. 1003). Here, we again find a nearly cut-and-paste rehashing of what is stated in the Petition with only the citations to Petitioner's expert's Declaration and to caselaw removed. *See also* Ex. 1003, ¶82 (same unsupported, conclusory statements regarding Fox and JP'279). Petitioner's tendered expert restates, without explanation, that ***unspecified*** elements and methods were known and predictable. And Petitioner's expert again predicates the combination as based on the Petitioner's false allegations of benefits of fine tuning. Ex. 2016 (Parnell), ¶109.

Petitioner's tendered expert does not state any additional rationale or reason why a POSITA would make Petitioner's alleged combination. At best, Petitioner's expert states that a POSITA ***could have made*** the combination, not that a POSITA ***would have made*** the same. *Belden*, 805 F.3d at 1073. Further, the combination would not have been predictable, as discussed above. A POSITA would not know if a reimagined eyelet, needed to fit Yi's new structures, would work for its intended use within a related vehicle. Ex. 2016 (Parnell), ¶110.

3. The Proposed Combination of Yi and JP'279 Improperly Relies on Hindsight.

Petitioner's proposed combination of Yi and JP'279 relies upon alterations that are neither present in nor suggested by these references. Further, there is no suggestion, outside of the conclusory statements of Petitioner's tendered expert, that these references would be combined by a POSITA as suggested by the Petition. This is hindsight, pure and simple. *Id.*, ¶111.

The proposed combination of Yi and JP'279, as alleged by Petitioner, requires modifying Yi's camshaft **2** to include an inclined plane arranged perpendicular to the surface of the camshaft **2**. *See, e.g.*, Ex. 1003, ¶¶93-96; Ex. 2016 (Parnell), ¶112. However, JP'279 fails to, along with all other references, teach or suggest (1) an inclined plane surface placed into the curved exterior surface of a camshaft, or any other curved surface (2) arranging the inclined plane ***tangentially*** to the curvature of the cam; (3) the complicated shaping of the camshaft **34** suggested by Petitioner; or (4) any difference between the suggested combination and the prior art devices disparaged in the Background. Ex. 2016 (Parnell), ¶112. Instead, Petitioner alleges this new shape without any basis in the prior art. This is not a true motivation to combine, but instead Petitioner looking back to recreate the challenged '207 Patent claims for purposes of challenging validity, rather than explaining what a POSITA would actually do.

Similarly, and to the extent alleged by Petitioner, nothing in JP'279 suggests adding an inclined plane surface to only a portion of Yi's camshaft **2**. Yi's cam includes a curved or otherwise complicated surface, which in no way suggests altering any portion thereof, let alone ***only*** a portion thereof. *Id.*, ¶113. Further, JP'279 has no suggestion that its slider **43** could be integrated into a cam's surface. Nor does JP'279 suggest that the tapered part **44** of the slider **43** may be used with a cam surface, arranged ***tangentially*** to the curvature of the cam. *Id.*

Further, the addition of the curved surface to the end surface of a cam shape would be difficult to manufacture, as discussed previously. *Id.*, ¶114. In any event, the cost of producing such a part with these complex geometries and additional manufacturing steps would be very high, and certainly much, much higher than either the Yi or JP'279 systems. *Id*.

Finally, and most importantly, no prior art reference on record suggests that any suspension system requires two different, linear means for moving an adjuster rod up and down. Furthermore, no prior art reference on record suggests that if a POSITA would combine these two different but nearly equivalent adjustment means that they should be arranged so that the tapered surface **43** of JP'279 would be oriented perpendicular to the ***curved surface*** of Yi's camshaft **2**. Again, this is a difficult and expensive change that would offer no discernable benefits. *Id.*, ¶115.

No reference discloses any of these required alterations that Petitioner alleges could be accomplished by a POSITA. The only support for any of these contentions are the conclusory statements of Petitioner's tendered expert. For Claim Term 1.2 (Petition, 82-86), Petitioner cites only to Paragraphs 123, 132 and 133-135 of Petitioner's expert's Declaration (Ex. 1003). Petitioner's entire argument is premised on its paid expert recreating the challenged '207 Patent claims, using those very claims as a guide. This cobbling together of different solutions in the art without any cognizable rationale or suggestion in the art is without merit and improper. *See Cheese Sys., Inc.*, 725 F.3d at 1352; *see also Endo Pharms. Inc.*, IPR2014-00656, Paper 66, at 25; *In re Cyclobenzaprine*, 676 F.3d at 1071.

Accordingly, the Board should reject Ground III of the Petition for these fundamental flaws.

VI. CONCLUSION

Petitioner FOX seeks to misrepresent the nature and scope of the underlying prior art references and the '207 Patent, relying on prior art already considered and rejected during prosecution of the '207 Patent and proffering combinations of references that amount to nothing more than a backwards path from the '207 Patent's own novel invention. The challenged claims of the '207 Patent are clearly novel and nonobvious when the prior art is correctly understood.

For at least these reasons, the Board should therefore uphold the patentability of all challenged '207 Patent claims.

Respectfully submitted,

Dated: October 31, 2024

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CERTIFICATE OF SERVICE

The undersigned certifies that a copy of the foregoing Patent Owner Response and Exhibits 2015 through 2020 were served by email at the following address of record for the Petitioner's Counsel on October 31, 2024:

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CERTIFICATE OF COMPLIANCE

Under 37 C.F.R. § 42.24(d), the undersigned certifies that this Patent Owner Response complies with the type-volume limitation of § 42.24(b)(2) because Microsoft Word counts 11,087 words, excluding the parts of the Response exempted by § 42.24(a).

This paper also complies with the typeface requirements of 37 C.F.R. § 42.6(a)(2)(ii) and the type style requirements of 37 C.F.R. § 42.6(a)(2)(iii) and (iv).

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