

**IN THE UNITED STATES DISTRICT COURT
FOR THE NORTHERN DISTRICT OF GEORGIA
ATLANTA DIVISION**

SRAM, LLC	)	
	)	
Plaintiff,	)	Civil Action No. 1:23-cv-00492-SCJ
	)	
v.	)	
	)	
FOX FACTORY, INC.	)	
	)	
Defendant.	)	
	)	

**FOX FACTORY, INC.’S PRELIMINARY
INVALIDITY CONTENTIONS**

Pursuant to Patent L.R. 4.3, Defendant FOX Factory, Inc. (FOX) hereby discloses its Preliminary Invalidity Contentions for the patents-in-suit, namely, United States Patent No. 10,328,993 B2 (“the ’993 patent”) and United States Patent No. 7,147,207 B2 (“the ’207 patent”) (collectively, the “Asserted Patents”).

I. INTRODUCTION

In its Preliminary Disclosure of Infringement Contentions, Defendant SRAM, LLC (“SRAM”) asserts the following claims of the Asserted Patents:

The ’993 patent: claims 1–4, 6, 8, 10, 12, 14–18, 20, 22, 24, 26–29, 31, 33–38, 40, 42, 44, 46–49, 51, 53, and 56–64

The '207 patent: claims 1–3, 7, 8, and 10–12

Pursuant to Patent L.R. 4.3, these Invalidity Contentions include: (a) the identity of prior art that anticipates each asserted claim or renders it obvious; (b) a statement specifying whether each item of prior art anticipates each asserted claim or renders it obvious; (c) a chart that identifies where in each item of prior art each limitation of each asserted claim is found; and (d) grounds for invalidity of the asserted claims based on indefiniteness, enablement, or written description under 35 U.S.C. § 112.

II. CLAIM CONSTRUCTION

FOX's Preliminary Invalidity Contentions are based on its present understanding of the scope of SRAM's infringement contentions and/or the apparent claim constructions FOX believes SRAM to be asserting based on its infringement contentions, whether or not FOX agrees with such claim constructions. To the extent that FOX's Preliminary Invalidity Contentions reflect constructions of claim limitations consistent with or implicit in SRAM's infringement contentions, that is not an admission that FOX agrees with SRAM's claim constructions (nor should any such inference be drawn), and FOX expressly reserves its right to put forth its own claim constructions and contest SRAM's implicit or explicit constructions in its infringement contentions. FOX's

Preliminary Invalidity Contentions may be in the alternative to any position it may ultimately take as to any claim construction issues, or any position it has taken in its Preliminary Invalidity Contentions. In the absence of a claim construction ruling, FOX's claim construction positions in the Preliminary Invalidity Contentions are taken in the alternative to any position FOX has taken in its Non-Infringement Contentions, and are not necessarily intended to be consistent with each other, and should not be otherwise construed.

III. RIGHT TO SUPPLEMENT

FOX's Preliminary Invalidity Contentions set forth below and in the attached exhibits are subject to supplementation and amendment when the Court issues its claim construction ruling, if and when SRAM provides Final Infringement Contentions, or as otherwise provided for under the Patent Local Rules.

In addition, FOX's investigation regarding invalidity of the Asserted Patents including invalidity based on prior publication, public use, or on sale bar under 35 U.S.C. § 102(b), improper inventorship and derivation, or prior invention, obviousness under 35 U.S.C. § 103(a), and failure to comply with 35 U.S.C. § 112 is ongoing. Accordingly, the following invalidity contentions are subject to revision and amendment pursuant to Federal Rule of Civil Procedure 26(e) and the

Court's Patent Local Rules to the extent appropriate in light of FOX's further investigation and discovery, any supplementation of SRAM's Preliminary Infringement Contentions, the Court's construction of the asserted claims, and the review and analysis of expert witnesses. FOX reserves the right to modify, amend, or supplement these Preliminary Invalidity Contentions in accordance with the Court's Scheduling Order and Patent Local Rules, as additional documents and information become available (including documentation and information that SRAM has not yet produced or provided), and as discovery and investigation proceed. FOX further reserves the right to introduce and use such supplemental materials at trial.

Moreover, FOX is currently unaware of the extent, if any, to which SRAM will contend that limitations of the asserted claims are not disclosed in the art identified by FOX. To the extent that an issue arises with respect to any such limitation, FOX reserves the right to identify references and combinations which may anticipate or render obvious the allegedly missing limitation.

IV. IDENTIFICATION OF PRIOR ART

FOX contends that the following prior art anticipate and/or render obvious each asserted claim:

Prior Art	Country of Origin	Date of Filing/ Issue/Publication/ Sale/Public Use/Public Availability	Applicable Statutory Grounds for Invalidity
FOX Float Ti Fork ("FOX Ti Fork")	US	At least as early as September 2010	35 U.S.C. §§ 102(a), 103
US 2010/0259028 ("Moechnig")	US	October 14, 2010	35 U.S.C. §§ 102(a), 103
DE 196 29 740 ("Denk")	Germany	January 29, 1998	35 U.S.C. §§ 102(a), 103
GB 287,452 ("Valat")	UK	August 9, 1928	35 U.S.C. §§ 102(a), 103
US 7,503,576 ("Schroeder")	US	March 17, 2009	35 U.S.C. §§ 102(a), 103
EP0063719 ("Campagnolo")	EP	November 3, 1982	35 U.S.C. §§ 102(a), 103
FOX Float RL Rear Shock	US	At least as early as September 2003	35 U.S.C. §§ 102(b), 103 (pre-AIA)
US 6,360,857 ("Fox")	US	March 26, 2002	35 U.S.C. §§ 102(b), 103 (pre-AIA)
JP2516279 ("JP279")	Japan	November 6, 1996	35 U.S.C. §§ 102(b), 103 (pre-AIA)
US 5,597,054 ("Nagai")	US	January 28, 1997	35 U.S.C. §§ 102(b), 103 (pre-AIA)
US 6,491,146 ("Yi")	US	December 10, 2002	35 U.S.C. §§ 102(b), 103 (pre-AIA)

US 7,097,014	US	June 4, 2004	35 U.S.C. §§ 102(e), 103 (pre-AIA)
US 2003/0019701	US	January 30, 2003	35 U.S.C. §§ 102(b), 103 (pre-AIA)

V. STATEMENT OF WHETHER PRIOR ART ANTICIPATES OR RENDERS OBVIOUS THE ASSERTED CLAIMS

FOX states that the following identified prior art anticipate or render obvious the asserted claims. The claim charts in Exhibits 1-6 identify how the prior art listed above correlates with the limitations in each of the asserted claim. The charts cite exemplary portions of the prior-art references that disclose particular limitations of the asserted claims; the citations are illustrative and informative, not exhaustive, and should not be construed as limiting. FOX intends to rely on each reference in its entirety, including uncited portions. One of ordinary skill in the art would read a prior art reference as a whole and in the context of the state of the art. Therefore, FOX may rely on uncited portions of the prior art references, other publications, and the general state of the art to aid the understanding of the cited portions of the prior art references and to establish the motivation to modify or combine the cited references.

Moreover, the charts are based on FOX's present understanding of the meaning and scope of the claims and SRAM's apparent interpretation of claim

element (which FOX does not necessarily agree with). As discussed below, several claim terms/limitations of the asserted claims are indefinite, and FOX's mapping of prior art to the asserted claims does not admit or suggest that the claim limitations are not indefinite (nor should any such inference be drawn). Nor does FOX's mapping of prior art to the asserted claims imply that FOX should be able to determine infringement/non-infringement of indefinite claims by accused FOX instrumentalities (nor should any such inference be drawn).

A. The '993 patent

Asserted Claims	Grounds for Invalidity	Exhibit No.
1–4, 6, 8, 10, 12, 14–18, 20, 22, 24, 26–29, 31, 33–38, 40, 42, 44, 46–49, 51, 53, and 56–64	Anticipated by Valat, or Rendered Obvious by Valat Alone or in View of One or More of Moechnig, Schroeder, and Campagnolo	1
1–4, 6, 8, 10, 12, 14–18, 20, 22, 24, 26–29, 31, 33–38, 40, 42, 44, 46–49, 51, 53, and 56–64	Anticipated by Denk, or Rendered Obvious by Denk Alone or in View of One or More of Moechnig, Schroeder, and Campagnolo	2
1–4, 6, 8, 10, 12, 14–18, 20, 22, 24, 26–29, 31, 33–38, 40, 42, 44,	Anticipated by FOX Float Ti Fork, or Rendered Obvious by FOX Float Ti Fork Alone or in View of One or More of Denk,	3

46–49, 51, 53, and 56–64	Moechnig, Schroeder, and Campagnolo	
--------------------------	-------------------------------------	--

B. The '207 patent

Asserted Claims	Grounds for Invalidity	Exhibit No.
1–3, 7, 8, and 10–12	Anticipated by Fox, or Rendered Obvious by Fox Alone or in View of One or More of Yi and Nagai	4
1–3, 7, 8, and 10–12	Anticipated by Yi, or Rendered Obvious by Yi Alone or in View of One or More of JP279 and Nagai	5
1–3, 7, 8, and 10–12	Anticipated by FOX Float RL, or Rendered Obvious by FOX Float RL Alone or in View of One or More of Yi and Nagai	6

Exhibits 3 and 6 map the asserted claims to confidential engineering drawings of the FOX Float Ti Fork and FOX Float RL rear shock, respectively, for illustrative purposes only. FOX is relying on the devices themselves as prior art in Exhibits 3 and 6, and not any drawings or publications of the FOX Float Ti Fork and FOX Float RL rear shock.

To the extent the above-cited prior art, alone or in the combinations indicated, lacks any specific limitation exactly, the claims are obvious over the prior art under the following standard from the Supreme Court:

When there is a design need or market pressure to solve a problem and there are a finite number of identified, predictable solutions, a person of ordinary skill has good reason to pursue the known options within his or her technical grasp. If this leads to the anticipated success, it is likely the product not of innovation but of ordinary skill and common sense. In that instance the fact that a combination was obvious to try might show that it was obvious under § 103.

KSR International Co. v. Teleflex Inc., 550 U.S. 398, 421 (2007).

With regard to the proposed combinations, the following standard applies:

When a work is available in one field of endeavor, design incentives and other market forces can prompt variations of it, either in the same field or a different one. If a person of ordinary skill can implement a predictable variation, § 103 likely bars its patentability. For the same reason, if a technique has been used to improve one device, and a person of ordinary skill in the art would recognize that it would improve similar devices in the same way, using the technique is obvious unless its actual application is beyond his or her skill.

Id. at 417.

All of the combinations set forth above involve references in the same field attempting to solve the same problems.

VI. GROUNDS OF INVALIDITY BASED ON 35 U.S.C. § 112

A. Indefiniteness

35 U.S.C. § 112(b) and 35 U.S.C. § 112, ¶2 (pre-AIA) require that a patent “conclude with one or more claims particularly pointing out and distinctly claiming the subject matter” which the applicant regards as his invention. The primary function of this requirement is to ensure that the language of a patent claim is sufficiently “definite” to inform the public of the boundaries of the protected invention. A lack of definiteness renders a patent claim invalid. “[A] patent is invalid for indefiniteness if its claims, read in light of the specification delineating the patent, and the prosecution history, fail to inform, with reasonable certainty, those skilled in the art about the scope of the invention.” *Nautilus, Inc. v. Biosig Instruments, Inc.*, 134 S. Ct. 2120, 2124 (2014).

Several claim limitations of the Asserted Patents fail to meet this standard, thereby rendering the claims (and the claims that depend therefrom) invalid as indefinite under § 112(b) or § 112, ¶2 (pre-AIA).

B. Lack of Written Description

To meet the written description requirement under 35 U.S.C. § 112(a) and 35 U.S.C. § 112, ¶1 (pre-AIA), the specification must “convey with reasonable clarity to those skilled in the art that, as of the filing date sought, [the inventor] was

in possession of the invention.” *Vas-Cath Inc. v. Mahurkar*, 935 F.2d 1555, 1563–64 (Fed. Cir. 1991); *Ariad Pharm., Inc. v. Eli Lilly & Co.*, 598 F.3d 1336, 1351–52 (Fed. Cir. 2010) (citations omitted). The Federal Circuit has also explained that a specification cannot support expansive claim language and satisfy the §112 written description requirement “merely by clearly describing one embodiment of the thing claimed.” *LizardTech v. Earth Res. Mapping, Inc.*, 424 F.3d 1336, 1346 (Fed. Cir. 2005) (claims to a generic method of making a seamless discrete wavelet transformation (DWT) were held invalid under §112, ¶1 because the specification taught only one particular method for making a seamless DWT and there was no evidence that the specification contemplated a more generic method).

Several claim limitations of the Asserted Patents fail to meet these standards, thereby rendering the claims (and the claims that depend therefrom) invalid for lack of written description under § 112(a) or §112, ¶1 (pre-AIA).

C. The '993 Patent

The claim limitation “a thickness of the wall at any point in the lower section of the body varying as a function of the cross-sectional angle of the point relative to the plane of travel, the wall thickness being at a maximum in the plane of travel of the bicycle” in independent claims 1, 61, and 64 is indefinite because the meaning and scope of this limitation cannot be determined with “reasonable

certainty” by a person skilled in the art. *Nautilus*, 134 S. Ct. at 2124. Specifically, a person skilled in the art would not be able to reasonably determine, based on the claim language and/or the specification, whether the wall thickness of the steerer tube body must vary continuously or linearly throughout the cross-section of tube body, or whether the thickness must vary at only two or more points (not continuously) on an inner cross-section of the tube body. Moreover, the meaning of the phrase “a function of the cross-sectional angle of the point relative to the plane of travel” is unclear and cannot be reasonably understood by one skilled in the art. Accordingly, asserted independent claims 1, 61, and 64, and each of the asserted dependent claims that depend from claim 1 or 61, are invalid as indefinite.

Moreover, the claim limitation “a thickness of the wall at any point in the lower section of the body varying as a function of the cross-sectional angle of the point relative to the plane of travel, the wall thickness being at a maximum in the plane of travel of the bicycle” in independent claims 1, 61, and 64 is not fully disclosed in the ’993 patent, and thus impermissibly broadens the scope of the claim. The specification and drawings teach only one embodiment of the claimed invention in which an inner cross-sectional contour of the lower section of the steerer tube body is elliptical. There is no disclosure in the ’993 patent that supports a broadened definition/scope of this limitation that encompasses

embodiments where the thickness varies at only two or more points (not continuously) on an inner cross-section of the tube body. *LizardTech*, 424 F.3d at 1346. Accordingly, asserted independent claims 1, 61, and 64, and each of the asserted dependent claims that depend from claim 1 or 61, are invalid for lack of written description.

D. The '207 Patent

The claim term “operatively connected” in claims 1, 2, 7, and 11 is indefinite because the meaning and scope of this term cannot be determined with “reasonable certainty” by a person skilled in the art. *Nautilus*, 134 S. Ct. at 2124. Specifically, a person skilled in the art would not be able to reasonably understand or determine whether two elements must be physically or functionally connected to fall within the scope of the claims. Nor would a person skilled in the art be able to reasonably understand whether two elements must be directly or indirectly connected to meet this claim requirement. Accordingly, the asserted claims 1, 2, 7, and 11, and the asserted claims that depend therefrom, are invalid as indefinite. Moreover, this claim term lacks written description support because nowhere does the specification or the drawings describe “operatively connect[ing]” two or more claim elements. Therefore, claims 1, 2, 7, and 11, and the asserted claims that depend therefrom, are also invalid for lack of written description.

The claim limitation “the cam surfaces are disposed substantially parallel to the camshaft axis” in claim 8, and the limitation “the cam surfaces disposed substantially parallel to the axis of the camshaft” in claim 10, are indefinite because the meaning and scope of these claim limitations cannot be determined with “reasonable certainty” by a person skilled in the art. *Nautilus*, 134 S. Ct. at 2124. Specifically, a person skilled in the art would not be able to reasonably understand or determine how a surface can be “substantially parallel” to an axis. Accordingly, claims 8 and 10, and claim 11 that depends from claim 10, are invalid as indefinite. Moreover, these claim terms lack written description support because nowhere does the specification or the drawings describe a single embodiment that meets all claim requirements, including cam surfaces that are “substantially parallel” to the camshaft axis. Therefore, claims 8 and 10, and claim 11 that depends from claim 10, are also invalid for lack of written description.

The limitation in independent claim 1, namely, “an adjuster assembly operatively connected to the valve assembly for adjusting the damping characteristics corresponding to at least one of the positions of the valve actuating assembly independently of the damping characteristics corresponding to another position of the valve actuating assembly,” is indefinite because the meaning and scope of this limitation cannot be determined with “reasonable certainty” by a

person skilled in the art. *Nautilus*, 134 S. Ct. at 2124. Specifically, in the case of a device having three or more adjustment positions of the valve actuating assembly, a person skilled in the art would not be able to reasonably understand or determine whether adjustment of damping characteristics in one position leaves the damping characteristics of each of the other positions unaffected, or whether adjustment of damping characteristics in one position leaves the damping characteristics of only one or some (but not all) of the other positions unaffected. Accordingly, independent claim 1, and the asserted claims that depend from claim 1, are invalid as indefinite.

Moreover, this claim limitation (“an adjuster assembly operatively connected to the valve assembly for adjusting the damping characteristics corresponding to at least one of the positions of the valve actuating assembly independently of the damping characteristics corresponding to another position of the valve actuating assembly”) impermissibly broadens the scope of claim 1 (and its dependent claims) beyond what is disclosed and supported by the specification. The specification and drawings teach only embodiments having three positions of the valve actuating assembly. There is no disclosure in the ’207 patent that supports a broadened scope that encompasses embodiments having only two adjustment positions, or more than three positions. Accordingly, independent claim

1, and the asserted claims that depend from claim 1, are invalid for lack of written description.

Dated: June 16, 2023

Respectfully submitted,

/s/ Arpita Bhattacharyya

Virginia L. Carron (Ga. Bar No. 112770)
**FINNEGAN, HENDERSON, FARABOW,
GARRETT & DUNNER, LLP**
271 17th Street, NW
Suite 1400
Atlanta, GA 30363-6209
Tel: (404) 653-6400
Fax: (404) 653-6444
Email: virginia.carron@finnegan.com

Robert F. McCauley (admitted *pro hac vice*)
Arpita Bhattacharyya (admitted *pro hac vice*)
**FINNEGAN, HENDERSON, FARABOW,
GARRETT & DUNNER, LLP**
3300 Hillview Avenue
Palo Alto, CA 94304
Tel: (650) 849-6600
Fax: (650) 849-6666
Email: robert.mccauley@finnegan.com
Email: arpita.bhattacharyya@finnegan.com

Attorneys for Defendant FOX Factory, Inc.

CERTIFICATE OF COMPLIANCE

Pursuant to Local Rule 7.1(D), counsel for Defendant FOX Factory, Inc. certifies that the foregoing was prepared in 14-point Times New Roman font and otherwise conforms to the requirements of Local Rule 5.1.

/s/Arpita Bhattacharyya

Arpita Bhattacharyya

CERTIFICATE OF SERVICE

I, Arpita Bhattacharyya, hereby certify that on June 16, 2023, a true and correct copy of the following document(s):

FOX FACTORY, INC.'S PRELIMINARY INVALIDITY CONTENTIONS; EXHIBITS 1-6

was served by e-mail transmission to the person(s) at the address listed below:

Holmes J. Hawkins III (SBN 338681)
hhawkins@kslaw.com
KING & SPALDING LLP
1180 Peachtree Street, NE, Suite 1600
Atlanta, Georgia 30309
Telephone: (404) 572-4600

- ☒ Via Email
- ☐ Via First Class Mail
- ☐ Via Hand Delivery
- ☐ Via Overnight Courier
- ☐ Via Facsimile

Richard B. Walsh, Jr.
rwalsh@lewisrice.com
Michael J. Hickey
mhickey@lewisrice.com
Sarah A. Milunski
smilunski@lewisrice.com

LEWIS RICE LLC
600 Washington Avenue, Suite 2500
St. Louis MO 63101
Telephone: (314) 444-7600
Facsimile: (314) 241-6056

- ☒ Via Email
- ☐ Via First Class Mail
- ☐ Via Hand Delivery
- ☐ Via Overnight Courier
- ☐ Via Facsimile

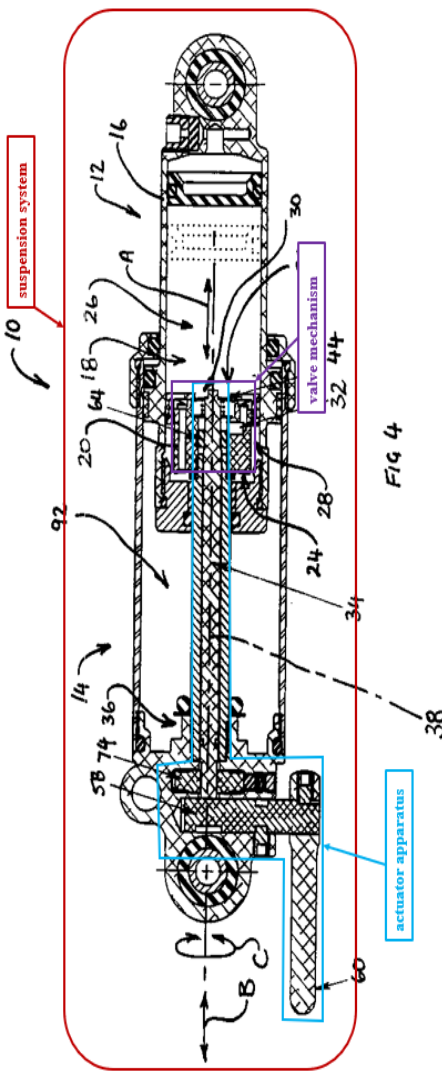
Attorneys for Plaintiff SRAM, LLC

I declare under penalty of perjury under the laws of the United States that the foregoing is true and correct. Executed at Palo Alto, California, on June 16, 2023.

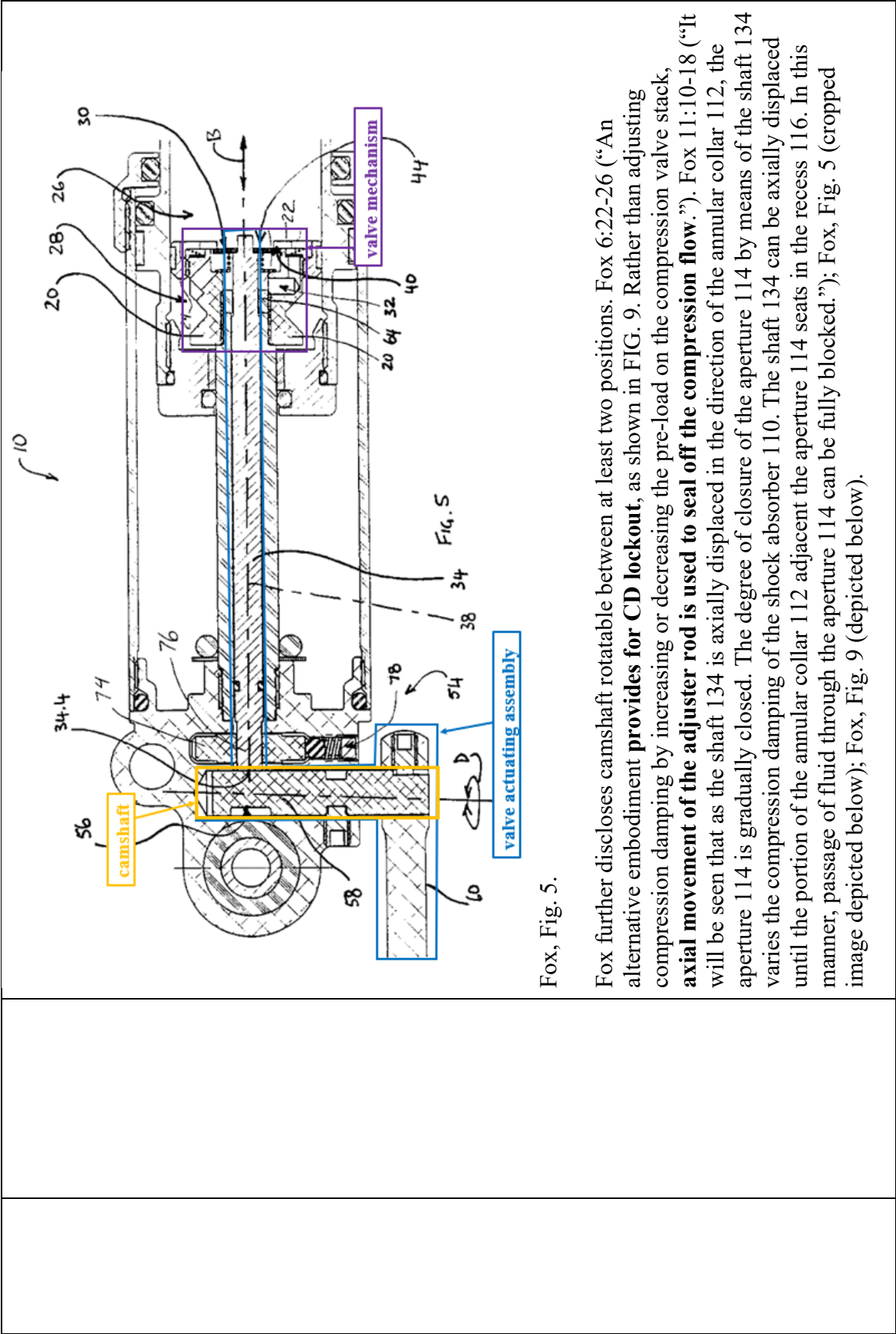
/s/ Arpita Bhattacharyya
Arpita Bhattacharyya

Exhibit

4

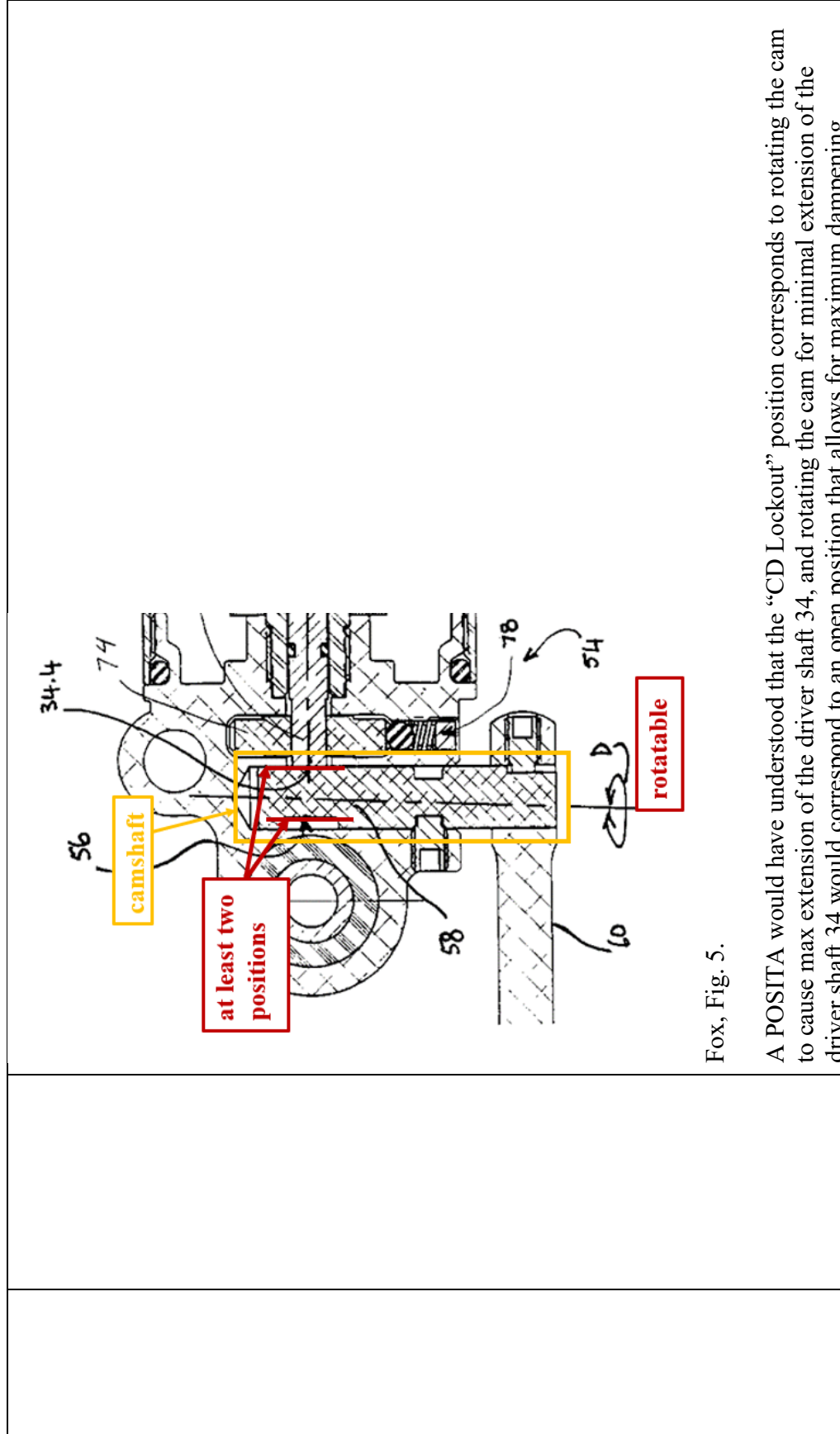
Claim No.	'207 Patent	Fox Alone or in View of One or More of Yi and Nagai Renders the Claims Obvious
1	An actuator apparatus for controlling a valve mechanism of a suspension system, the actuator apparatus comprising:	Fox discloses an actuator apparatus for controlling a valve mechanism of a suspension system. Fox, Abstract (“A shock absorber comprises an adjustment component movable in two degrees of freedom. When the adjustment component is adjusted within one of its degrees of freedom of movement, a characteristic, such as the compression damping, is adjusted and when the adjustment component is adjusted within the other of its degrees of freedom of movement another characteristic, such as the rebound damping, is adjusted. The invention extends to a method of adjusting the operation of a shock absorber.”); Fox, 5:46-53 (“In one embodiment the rod is moved axially by the engagement of a proximal end of the rod with a rotary cam surface which is rotated by the user through a lever. The distal end of the rod, in this embodiment, abuts a restriction component, or compression stroke valve stack, thus adjusting the amount of force required to cause the valve stack to open.”); Fox, Fig. 4 (depicted below).  Fox, Fig. 4. Yi also discloses an actuator apparatus for controlling a valve mechanism of a suspension system. Yi, 3:1-6 (“The shock absorber 6 is mounted on a frame 100 of the bicycle, and includes opposing first and second cylinders 61, 62, a hollow shaft 4, first, second and third pistons 7, 8, 9, first, second, third and fourth valves 851, 831, 861, 821, a damping adjusting rod 10, an up-flow adjusting unit 5, and a down-flow adjusting unit 3.”)

1a	a valve actuating assembly operatively connected to the valve mechanism, the valve actuating assembly including a camshaft rotatable between at least two positions to adjust the valve mechanism between various suspension settings; and	Fox discloses a valve actuating assembly (actuator arrangement 54 and shaft 34) operatively connected to the valve mechanism. Fox 3:38-46 (“The shock absorber further comprises a damping adjuster having an axis extending along the shaft, a damping adjuster rotator operably coupled to the damping adjuster for rotating the damping adjuster about said axis and a damping adjuster driver operably coupled to the damping adjuster for longitudinally moving the damping adjuster along said axis. The damping adjuster is operably coupled to the flow restrictor so rotational and longitudinal movement of the damping adjuster separately operates the flow restrictor thereby separately changing the damping of the shock absorber during movement of the piston.”); Fox, 5:48-53 (“The distal end of the rod, in this embodiment, abuts a restriction component, or compression stroke valve stack, thus adjusting the amount of force required to cause the valve stack to open.”); Fox, Fig. 5 (depicted below showing driver shaft 34 operatively connected to restriction component 44 (compression stroke valve stack)). Fox discloses the valve actuating assembly including a camshaft. Fox, 5:46-49 (“In one embodiment the rod is moved axially by the engagement of a proximal end of the rod with a rotary cam surface which is rotated by the user through a lever.”); Fox, 8:8-13 (“The actuator arrangement 54 comprises a cam 56 arranged to cooperate with the shaft 34 to cause the shaft to displace axially along its longitudinal axis 38 in response to angular displacement of the cam 56”); Fox, Fig. 5 (depicted below showing camshaft [cam 56] operatively connected to driver shaft 34 and lever 60). Fox disclose that the camshaft is rotatable to adjust the valve mechanism between various suspension settings. Fox 8:4-34 (The actuator arrangement 54 comprises a cam 56 arranged to cooperate with the shaft 34 to cause the shaft to displace axially along its longitudinal axis 38 in response to angular displacement of the cam 56, relative to the shaft 34, as indicated by arrow D in FIG. 5 Accordingly, shaft 34 acts as a damping adjuster, restriction component 44 acts as a variable restriction flow restrictor and actuator arrangement 54 acts as a damping adjuster driver.”); Fox 10:10-14 (“[I]n response to axial displacement of the shaft 34, the resistance to fluid flow through the passage 30 is varied, and, accordingly, the compression damping characteristic of the shock absorber 10 is also varied.”); Fox Fig. 5 (depicted below showing arrow D for rotational movement of camshaft [cam 56] and arrow B for resulting axial movement of driver shaft 34).
----	---	---



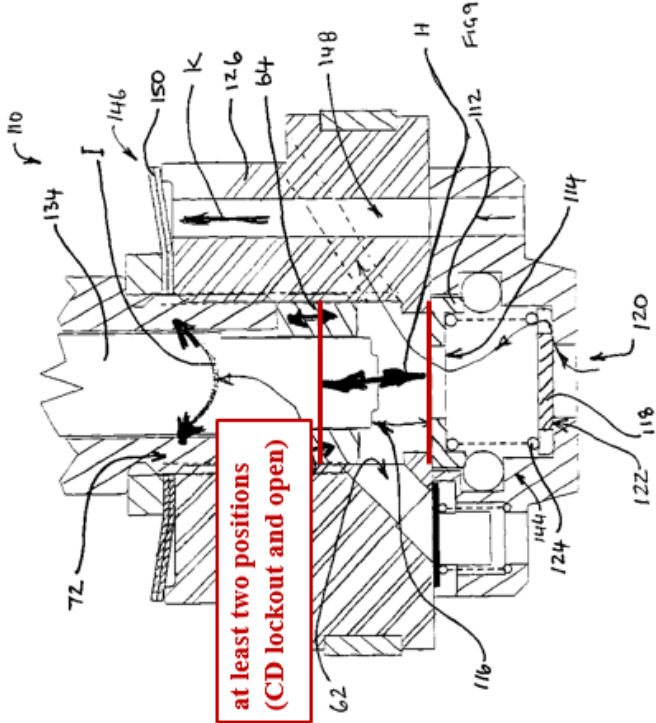
Fox, Fig. 5.

Fox further discloses camshaft rotatable between at least two positions. Fox 6:22-26 (“An alternative embodiment **provides for CD lockout**, as shown in FIG. 9. Rather than adjusting compression damping by increasing or decreasing the pre-load on the compression valve stack, **axial movement of the adjuster rod is used to seal off the compression flow**.”). Fox 11:10-18 (“It will be seen that as the shaft 134 is axially displaced in the direction of the annular collar 112, the aperture 114 is gradually closed. The degree of closure of the aperture 114 by means of the shaft 134 varies the compression damping of the shock absorber 110. The shaft 134 can be axially displaced until the portion of the annular collar 112 adjacent the aperture 114 seats in the recess 116. In this manner, passage of fluid through the aperture 114 can be fully blocked.”); Fox, Fig. 5 (cropped image depicted below); Fox, Fig. 9 (depicted below).



Fox, Fig. 5.

A POSITA would have understood that the “CD Lockout” position corresponds to rotating the cam to cause max extension of the driver shaft 34, and rotating the cam for minimal extension of the driver shaft 34 would correspond to an open position that allows for maximum dampening.

	 at least two positions (CD lockout and open)	
	Fox, Fig. 9. Yi also discloses a camshaft rotatable between at least two positions to adjust the valve mechanism between various suspension settings. Yi, 5:38-43 (“The down-flow adjusting unit 3 includes an eccentric shaft 2 which extends into the transverse channel 15 and which is connected to the connecting end 16 of the damping adjusting rod 10. The eccentric shaft 2 is turnable so as to move the damping adjusting rod 10 in the axial direction to the first, second, and third axial positions.”); Yi, Fig. 12 (depicted below showing a camshaft [eccentric shaft 2]). Yi, Figs. 5-7 (depicted below showing three camshaft positions).	

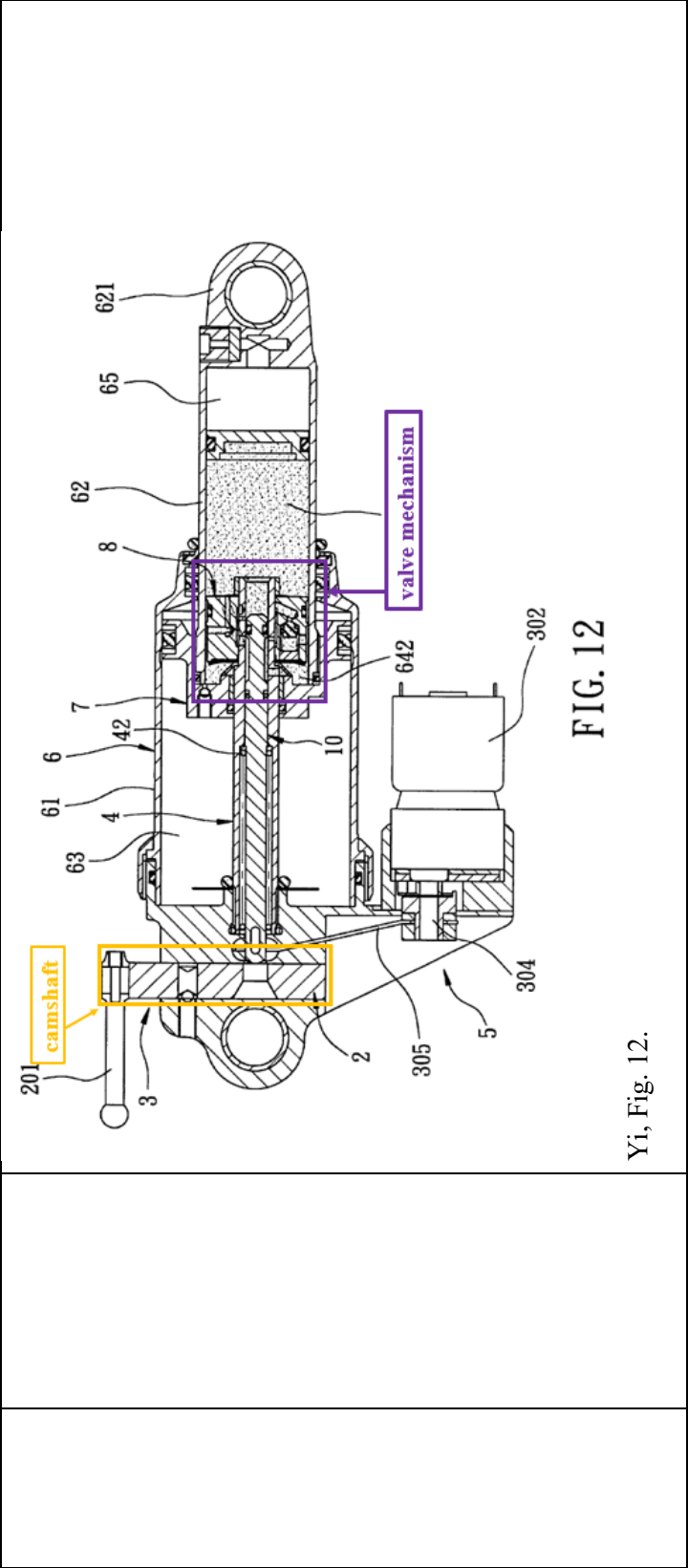
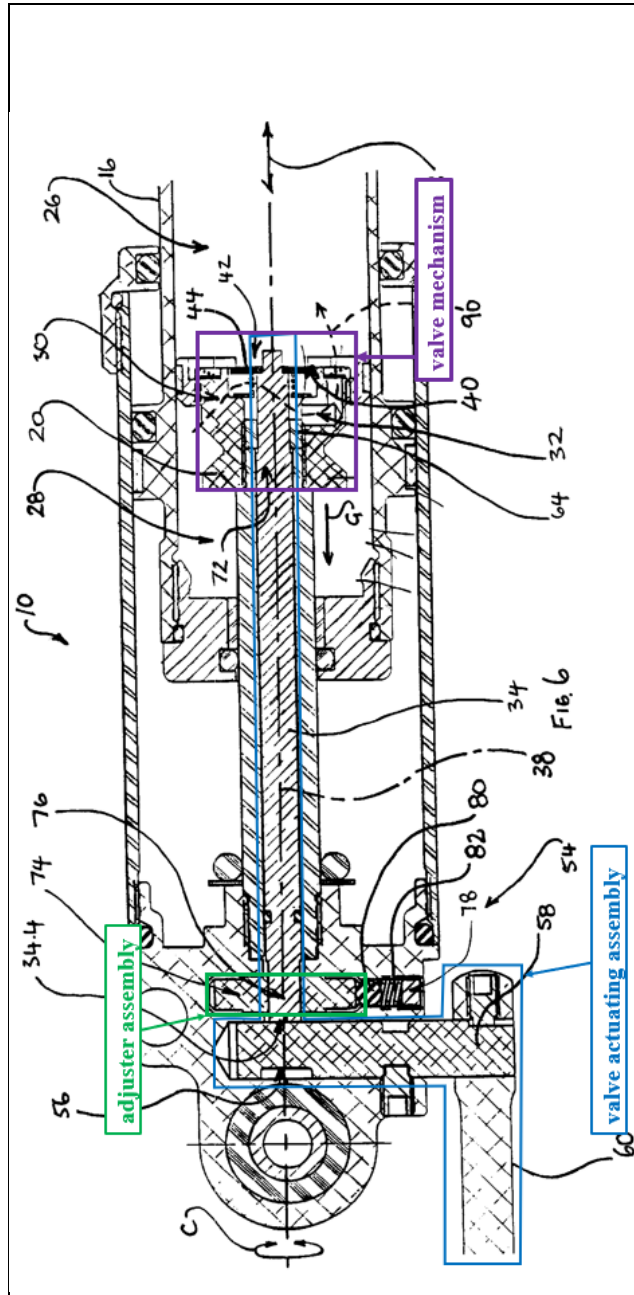


		FIG. 5 FIG. 6 FIG. 7 Yi, Fig. 5-7. A POSITA would have been motivated to combine the teachings of Yi with Fox because both disclose adjustable shock absorbers for bicycles. Yi 1:7-8 (“This invention relates to a damping adjustable shock absorber for a bicycle”); Fox 1:61-65 (“[I]t would be desirable to provide a shock absorber with easily adjustable RD and/or CD characteristics or values to enable a user of the mountain bicycle to adjust the RD and CD characteristics of the shock absorber.”). While Fox only discloses two positions for CD characteristic adjustment (open and lockout), a POSITA would have been motivated to modify Fox to have three dampening adjustment positions, as taught by Yi, to improve Fox’s design and provide the user additional adjustment features.
--	--	--

Exhibit 4 – Invalidity of U.S. Patent No. 7,147,207

1b	an adjuster assembly operatively connected to the valve actuating assembly for adjusting the damping characteristics corresponding to at least one of the positions of the valve actuating assembly independently of the damping characteristics corresponding to another position of the valve actuating assembly.	Fox discloses an adjuster assembly operatively connected to the valve actuating assembly. Fox, 9:14-21 (“As can best be seen with reference to FIG. 6, the shock absorber 10 further comprises an actuator, generally indicated by reference numeral 74, operatively connected to the shaft 34 such that the shaft 34 can be angularly displaced in the directions of arrows C about its longitudinal axis 38 relative to the piston 20 in response to operation of the actuator 74. The actuator 74 is in the form of a dial, or thumb wheel, Secured on the shaft 34 at 76.”). Fox, Fig. 6 (depicted below showing adjuster assembly 74 operatively connected to shaft 34 of the valve actuating assembly). Fox discloses that the adjuster assembly is for adjusting the damping characteristics corresponding to at least one of the positions (i.e., the open position) of the valve actuating assembly. Fox, 10:36-42 (“This can be effected by the user by angularly displacing the dial 74 thereby angularly to displace the shaft 34 as indicated by arrow C. When the shaft is rotated in this manner, the blocking component 64 is caused to ride along the internal passage 72 thereby variably to block the port 62 so as to change the rebound damping of the shock absorber 10.”); Fox, 9:36-40 (“Accordingly, piston 20, having passages 30, 32 formed therein, acts as a vented piston, Shaft 34 acts as a damping adjuster rod, actuator 74 acts as a rod rotator and actuator arrangement 54 acts as a rod driver.”). Fox, Fig. 6 (depicted below showing arrow C for angular displacement of adjuster assembly 74 to change damping characteristics of the shock).
----	--	---

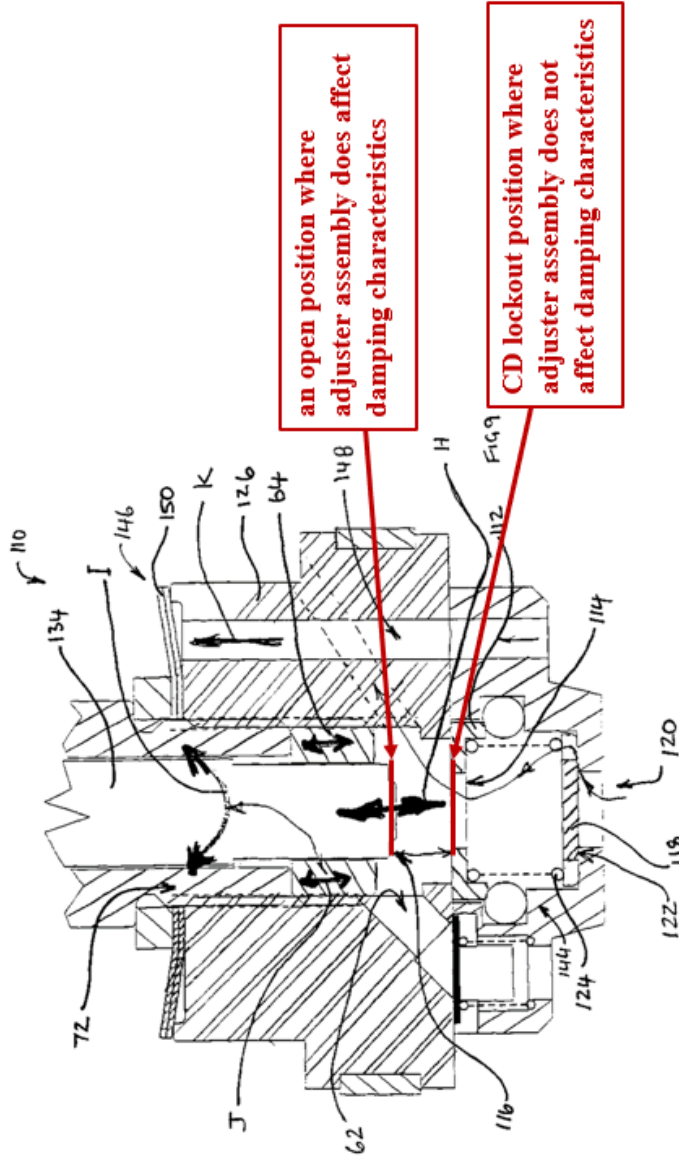


Fox, Fig. 6.

To the extent it is not explicitly disclosed, a POSITA would have understood that Fox discloses an adjuster assembly that acts independently of the damping characteristics corresponding to another position of the valve actuating assembly because Fox discloses an open position and a “CD lockout” position where “axial movement of the adjuster rod is used to seal off the compression flow.” Fox, 6:22-26. A POSITA would have understood that full axial extension of shaft 134 so that “passage of fluid through the aperture 114 can be fully blocked” created a rigid damping characteristic where angular displacement of shaft 134 would not vary this rigid damping characteristic such that the piston does not compress or rebound. See Fox 10:67-11:18. However, when shaft 34/134 is not fully extended, i.e., in the open position, shaft 34/134’s axial position “varies the compression damping of the shock absorber 110,” allowing the piston to compress, and therefore “angular displacement of the shaft 134” will “vary rebound damping of the shock absorber 110.” See *id.*; See also Fox, Fig. 9 (annotated below showing shaft 134 with arrow H indicating axial movement to seal off aperture 114). A POSITA would also understand that when the axial position

Exhibit 4 – Invalidity of U.S. Patent No. 7,147,207

of the shaft 34/134 is adjusted by the actuator 74 (“adjuster assembly”), the dampening characteristics of the “CD lockout” position is not affected.



Fox, Fig 9.

See claim 1. Fox’s valve actuating assembly (shaft 34 and actuator arrangement 54) comprises:

The actuator apparatus of claim 1 wherein the valve actuating assembly comprises:

2

2a	a driver movable to adjust the valve mechanism between various suspension settings; and	Fox discloses a driver (shaft 34) movable to adjust the valve mechanism between various suspension settings. Fox, 10:6-14(“When the shaft 34 is displaced in an axial direction as indicated by arrows B, a degree of pre-load of the component 44 against the Seat 40 is varied. In consequence, as a result of the variation of the pre-load of the component 44 in response to axial displacement of the shaft 34, the resistance to fluid flow through the passage 30 is varied, and, accordingly, the compression damping characteristic of the Shock absorber 10 is also varied.”); Fox, 6:22-26 (“An alternative embodiment provides for CD lockout, as shown in FIG. 9. Rather than adjusting compression damping by increasing or decreasing the pre-load on the compression valve stack, axial movement of the adjuster rod is used to seal off the compression flow.”). Fox, Fig. 5 (depicted below showing shaft 34 acting as the driver movable in the axial direction indicated by arrows B).
		The diagram is a cross-sectional view of a shock absorber assembly, labeled '10' at the top. It shows a central shaft '34' passing through various components. At the top, a 'camshaft' '56' is shown with a gear '58' and a lever '74'. The shaft '34' passes through a 'driver' (highlighted in orange) and a 'valve actuating assembly' (highlighted in blue). The assembly includes a 'valve mechanism' (highlighted in purple) with a 'seat' '40' and a 'passage' '30'. Other components labeled include '20', '22', '26', '28', '30', '32', '38', '44', '54', '76', and '78'. Arrows 'B' indicate axial movement of the shaft '34'. The figure is labeled 'Fig. 5' at the bottom right.

Yi also discloses a driver (rod 10) movable to adjust the valve mechanism between various suspension settings. Yi, 5:38–46 (“The **down-flow adjusting unit** 3 includes an eccentric shaft 2 which extends into the transverse channel 15 and which is connected to the connecting end 16 of the damping adjusting rod 10. The eccentric shaft 2 is turnable so as to **move the damping adjusting rod 10 in the axial direction to the first, second, and third axial positions.**”); Yi, Fig. 12 (depicted below showing driver [damping adjusting rod 10] movable in the axial direction by a camshaft [eccentric shaft 2]).

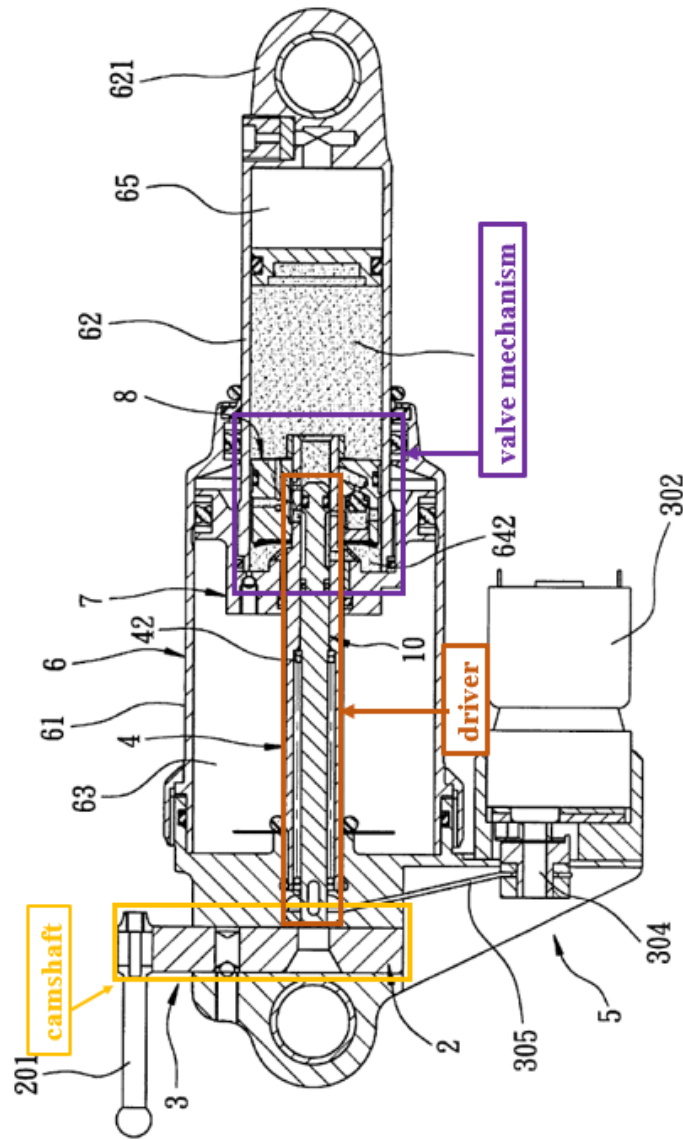
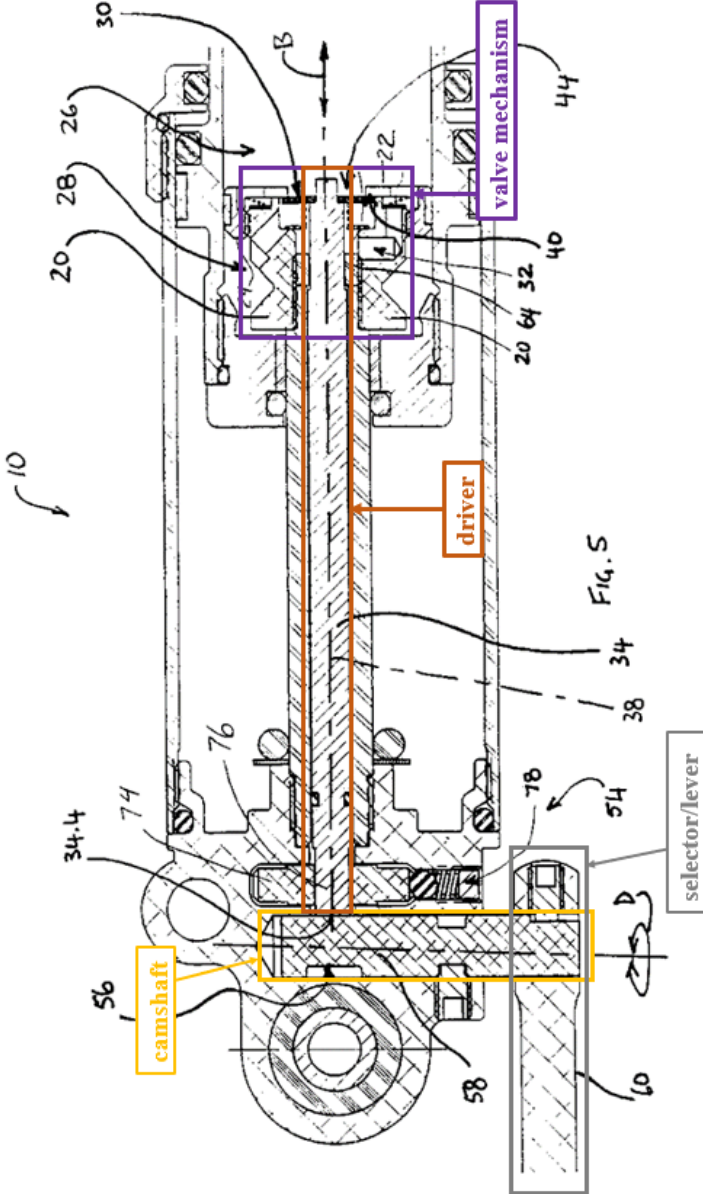


FIG. 12

Yi, Fig. 12.

2b	a selector operatively connected to the driver and rotatable between the positions.	Fox discloses a selector (actuator arrangement 54) operatively connected to the driver (shaft 34) and rotatable between the positions. Fox, 8:24-29 (“The actuation shaft 58 is angularly displaceable by operation of the lever 60. It will be appreciated that the lever 60 is positioned outside the rest of the shock absorber 10 so as to enable a user selectively to adjust the axial position of the shaft 34 along its axis 38 by operation of the lever 60.”); Fox, Fig 5 (depicted below showing selector [lever 60] rotatable as indicated by arrow D).  The diagram, labeled Fig. 5, is a cross-sectional view of a mechanical assembly, likely a shock absorber. It shows a central shaft (34) with an axis of rotation (38). At one end, there is a selector/lever (60) which is rotatable, as indicated by arrow D. This lever is connected to a driver (shaft 34). The driver is part of a larger assembly that includes a camshaft (56) and a valve mechanism (44). The valve mechanism is shown in a cross-section with various internal components labeled with numbers like 20, 22, 26, 28, 30, 32, 34, 36, 38, 40, 42, 44, 46, 48, 50, 52, 54, 56, 58, 60, 62, 64, 66, 68, 70, 72, 74, 76, 78, 80, 82, 84, 86, 88, 90, 92, 94, 96, 98, 100. The entire assembly is housed within a casing (10). The drawing is a technical illustration with various lines, arrows, and labels indicating the components and their functions.
----	--	--

Fox, Fig. 5.

Yi also discloses a selector (driving unit 32 and eccentric shaft 2) operatively connected to the driver and rotatable between the positions. Yi, 5:38-46 (“**The eccentric shaft 2 is turnable so as to move the damping adjusting rod 10 in the axial direction to the first, second, and third axial positions. A driving unit 32 with a driving shaft 34 is coupled to the eccentric shaft 2 via a geared**

coupler 31 **for turning the eccentric shaft 2.**” Fig. 2 (depicted below showing selector [driving unit 32] operatively connected to driver through the camshaft [eccentric shaft 2]).

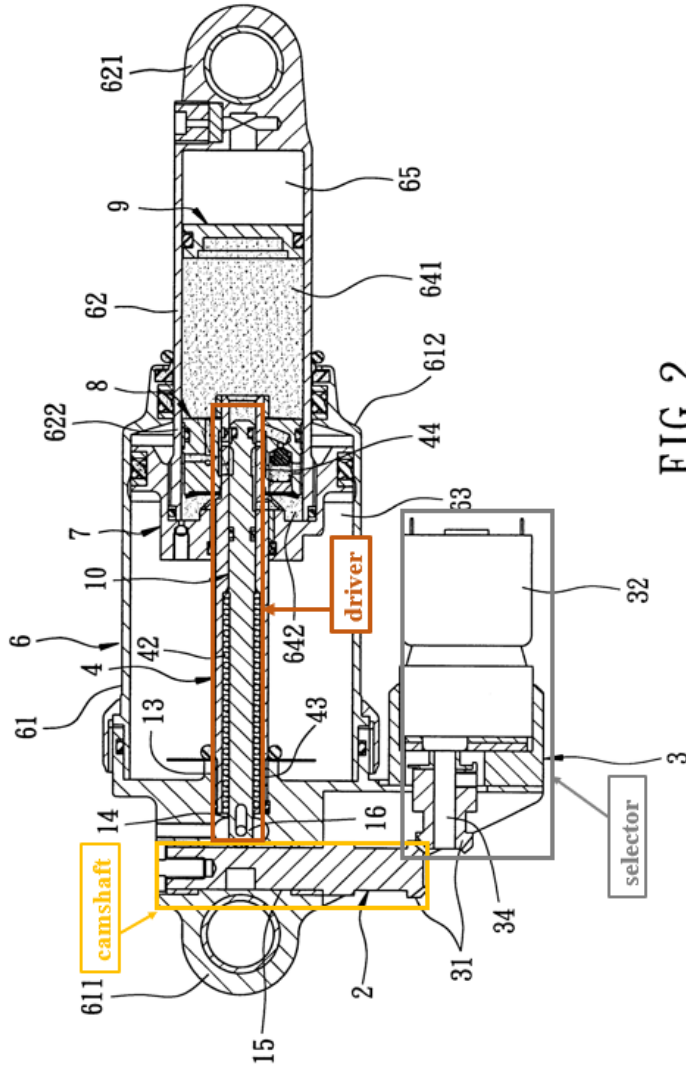
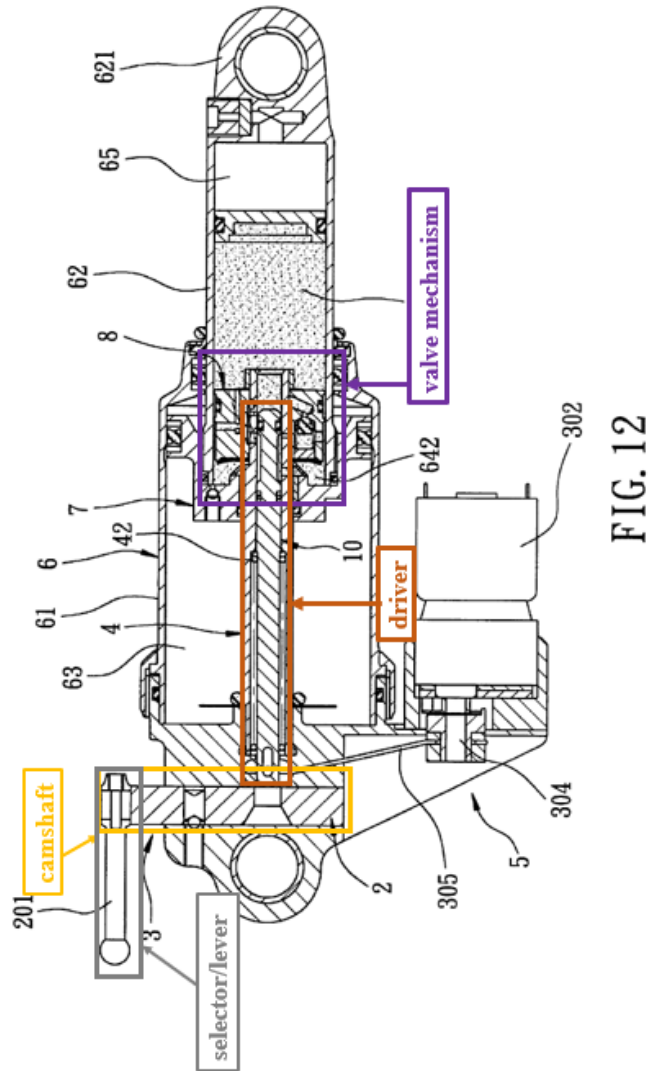


FIG. 2

Yi, Fig. 2.

Yi also discloses a selector (handle 201 and eccentric shaft 2) operatively connected to the driver and rotatable between the positions. Yi, 5:38-43 (“The down-flow adjusting unit 3 includes an eccentric shaft 2 which extends into the transverse channel 15 and which is connected to the connecting end 16 of the damping adjusting rod 10. **The eccentric shaft 2 is turnable so as to move the damping adjusting rod 10 in the axial direction to the first, second, and third axial positions.**”); Yi, 5:50-55 (“FIGS. 11 and 12 illustrate a second preferred embodiment of a shock absorber of this invention. The shock absorber is similar to the previous embodiment of FIG. 1, except that **the eccentric shaft 2 of the down-flow adjusting unit 3 is operated via a handle**

201”), Fig. 12 (depicted below showing selector [handle 201] operatively connected to driver through the camshaft [eccentric shaft 2]).



Yi, Fig. 12.

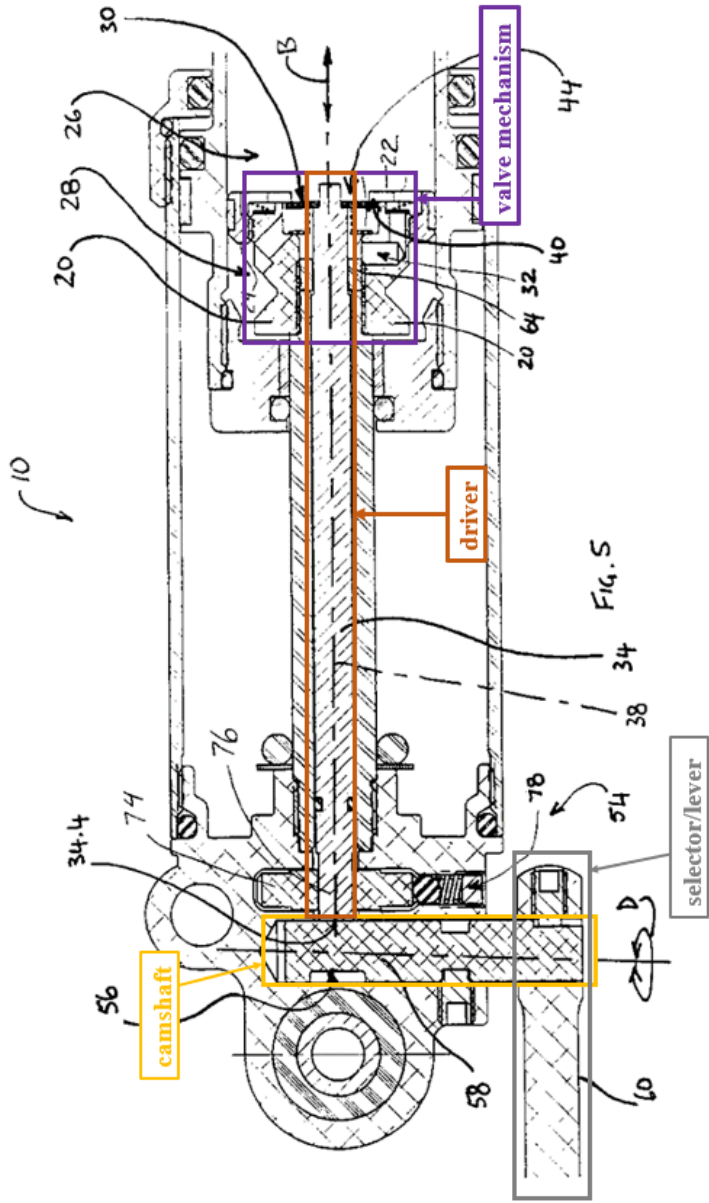
See claims 1 and 2. Fox’s “selector” comprises:

The actuator apparatus of claim 2 wherein the selector comprises:

3

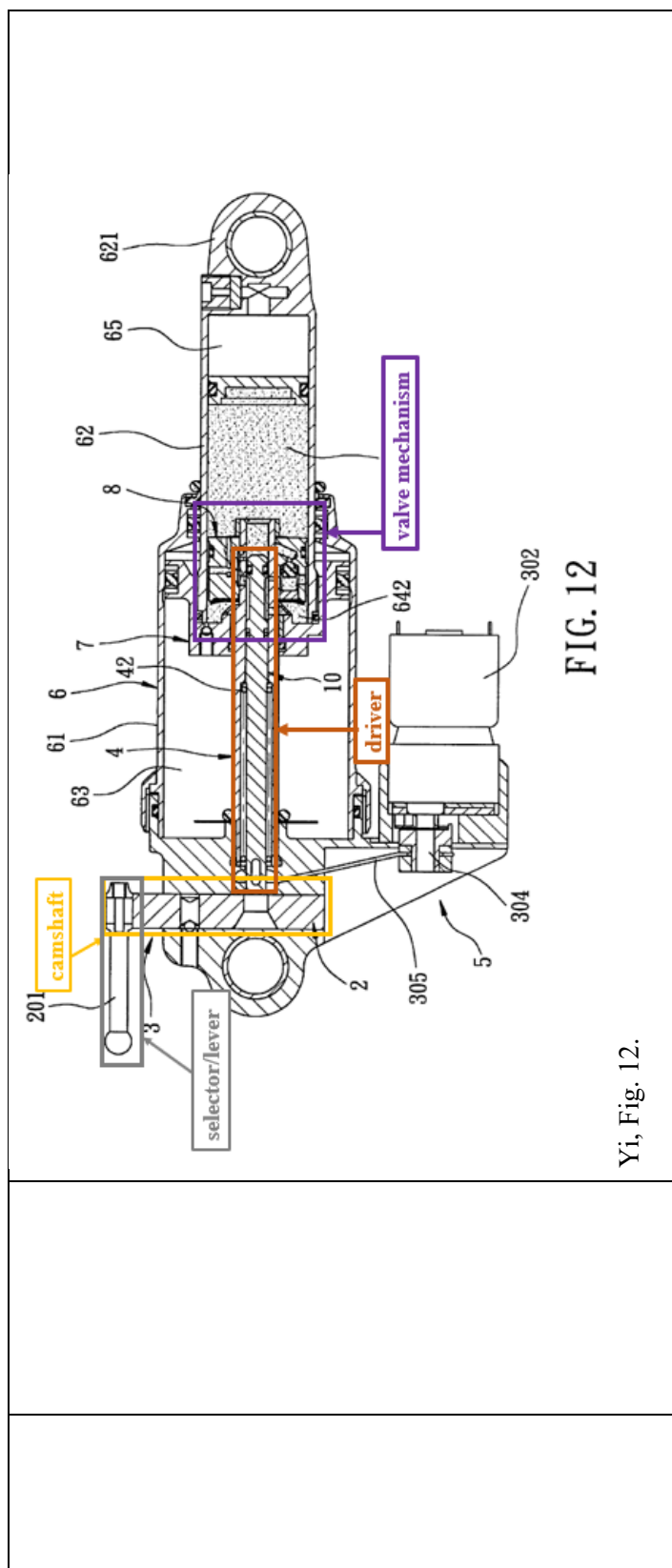
3a	a lever operable between the positions; and

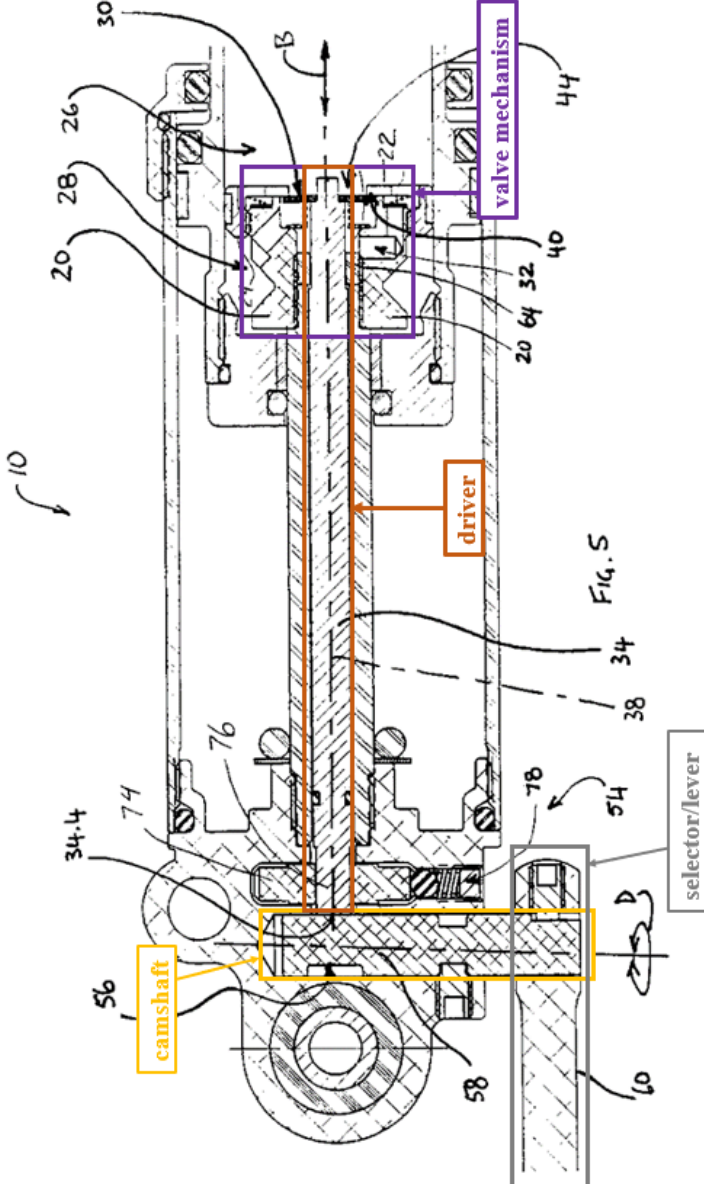
Fox discloses a lever (lever 60) operable between the positions. Fox, 8:24-29 (“The actuation shaft 58 is angularly displaceable by **operation of the lever 60**. It will be appreciated that the lever 60 is positioned outside the rest of the shock absorber 10 so as to **enable a user selectively to adjust** the axial position of the shaft 34 along its axis 38 by operation of the lever 60.”); Fox, Fig 5 (depicted below showing selector [lever 60] rotatable as indicated by arrow D).

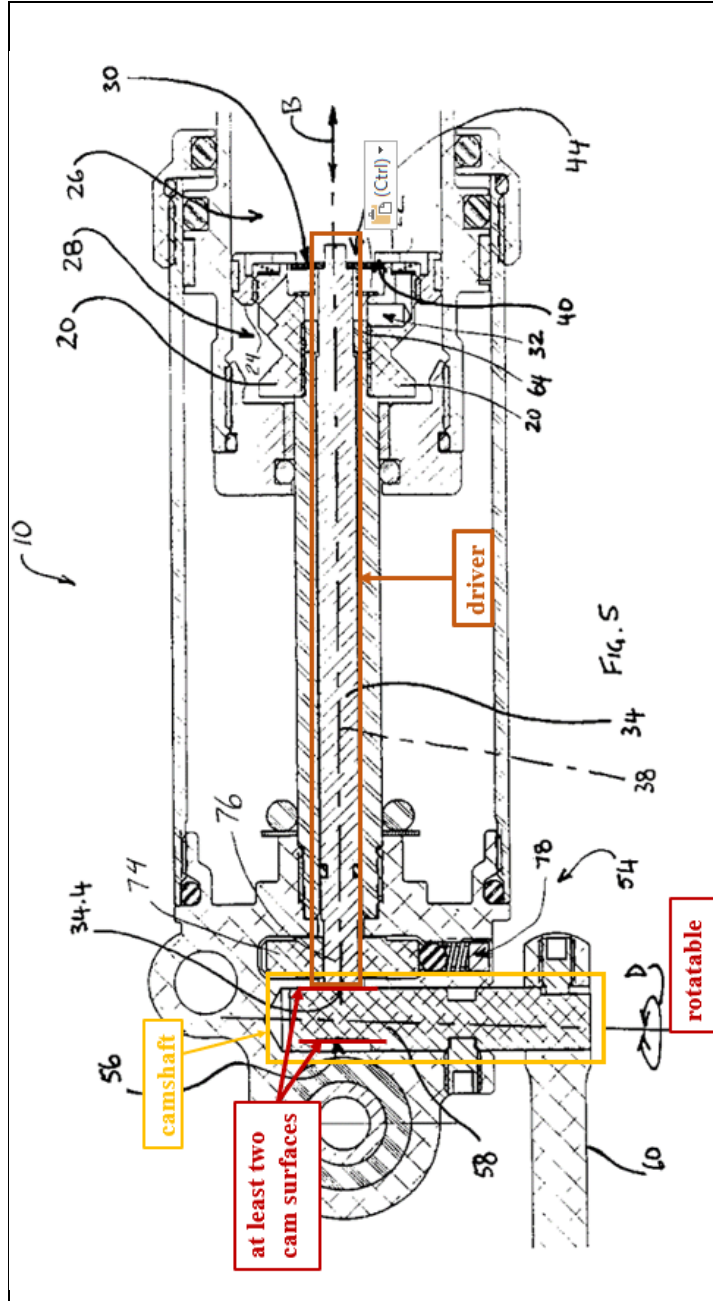


Fox, Fig. 5.

Yi also discloses a lever (handle 201) operable between the positions. Yi, 5:50-55 (“FIGS. 11 and 12 illustrate a second preferred embodiment of a shock absorber of this invention. The shock absorber is similar to the previous embodiment of FIG. 1, except that **the eccentric shaft 2 of the down-flow adjusting unit 3 is operated via a handle 201**”); Yi, Fig. 12 (depicted below with a lever [handle 201]).

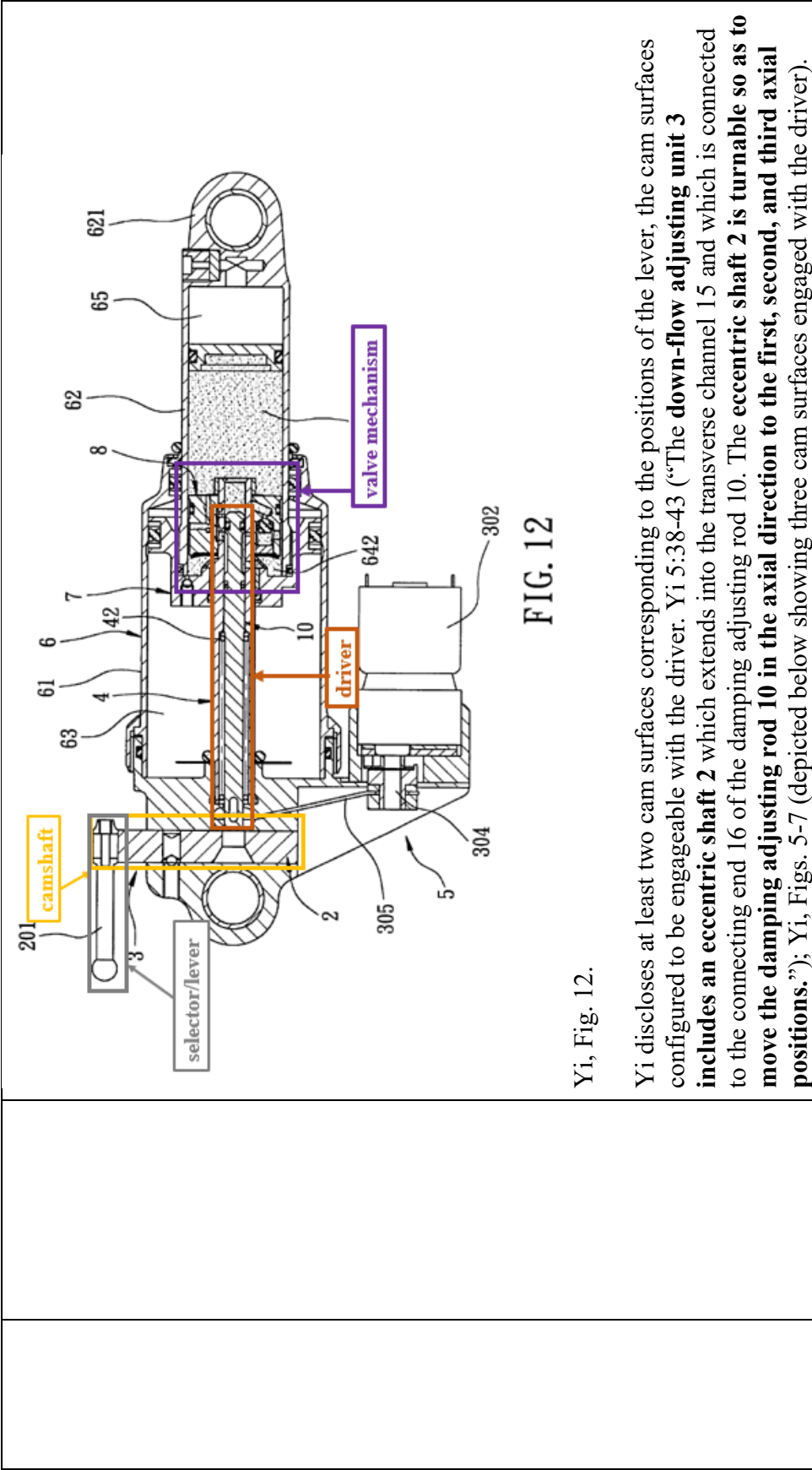


3b	the camshaft operatively connected to the lever, and at least two cam surfaces corresponding to the positions of the lever, the cam surfaces configured to be engageable with the driver.	Fox discloses a camshaft operatively connected to the lever. Fox, 8:24-29 (“The actuator arrangement 54 further comprises a lever 60 connected to the actuation shaft 58 remote from the cam 56. The actuation shaft 58 is angularly displaceable by operation of the lever 60.”); Fox, Fig 5 (depicted below showing selector [lever 60] operatively connected to the camshaft).  Fox, Fig. 5. Fox discloses at least two cam surfaces corresponding to the positions of the lever, the cam surfaces configured to be engageable with the driver. Fox, 8:18-22 (“The cam 56 abuts against an end 34.4 of the shaft 34 so that the shaft is axially displaceable along its longitudinal axis 38 relative to the piston 20 in response to angular displacement of the cam 56 against the end 34.4 of the shaft 34.”); Fox, Fig. 5 (depicted below).
----	--	--



Fox, Fig. 5.

Yi also discloses a camshaft operatively connected to the lever. Yi, 5:50-55 (“FIGS. 11 and 12 illustrate a second preferred embodiment of a shock absorber of this invention. The shock absorber is similar to the previous embodiment of FIG. 1, except that **the eccentric shaft 2 of the down-flow adjusting unit 3 is operated via a handle 201**”; Yi, Fig. 12 (depicted below with a lever [handle 201]).



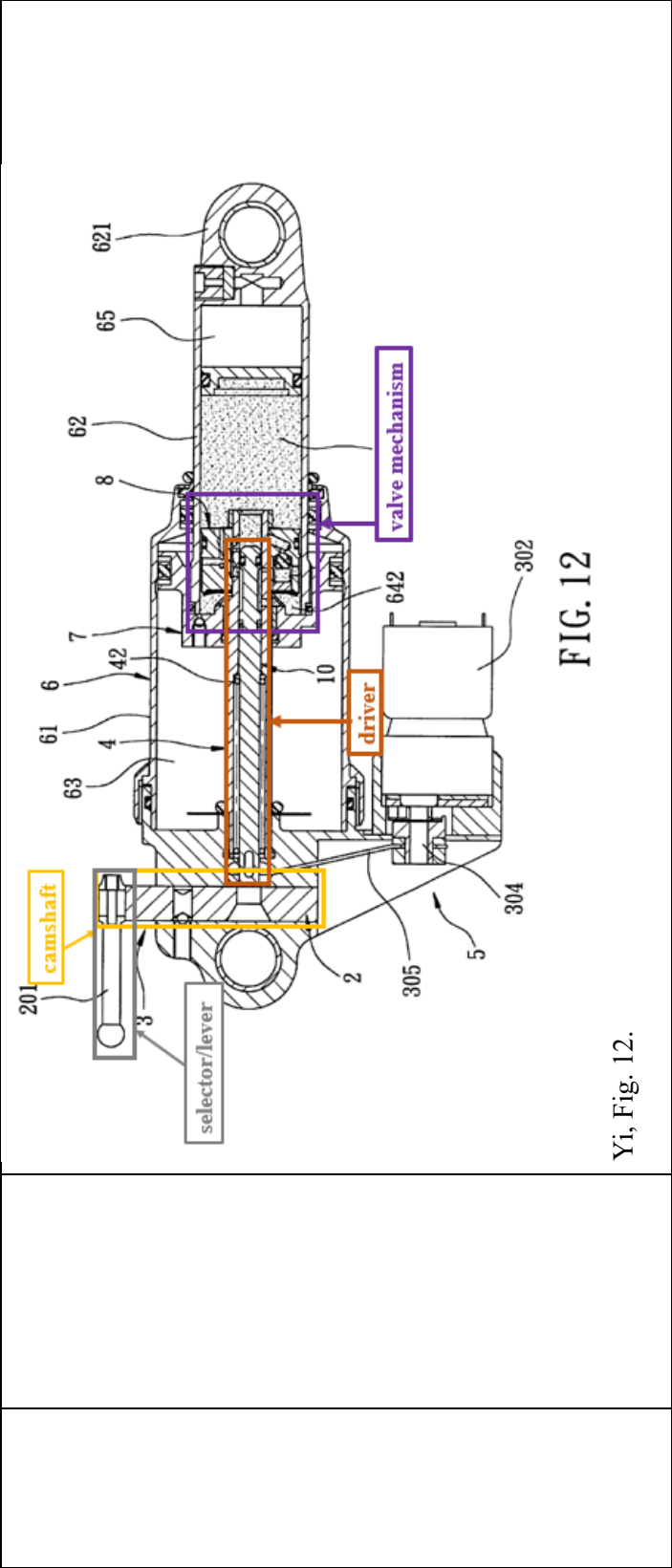
Yi, Fig. 12.

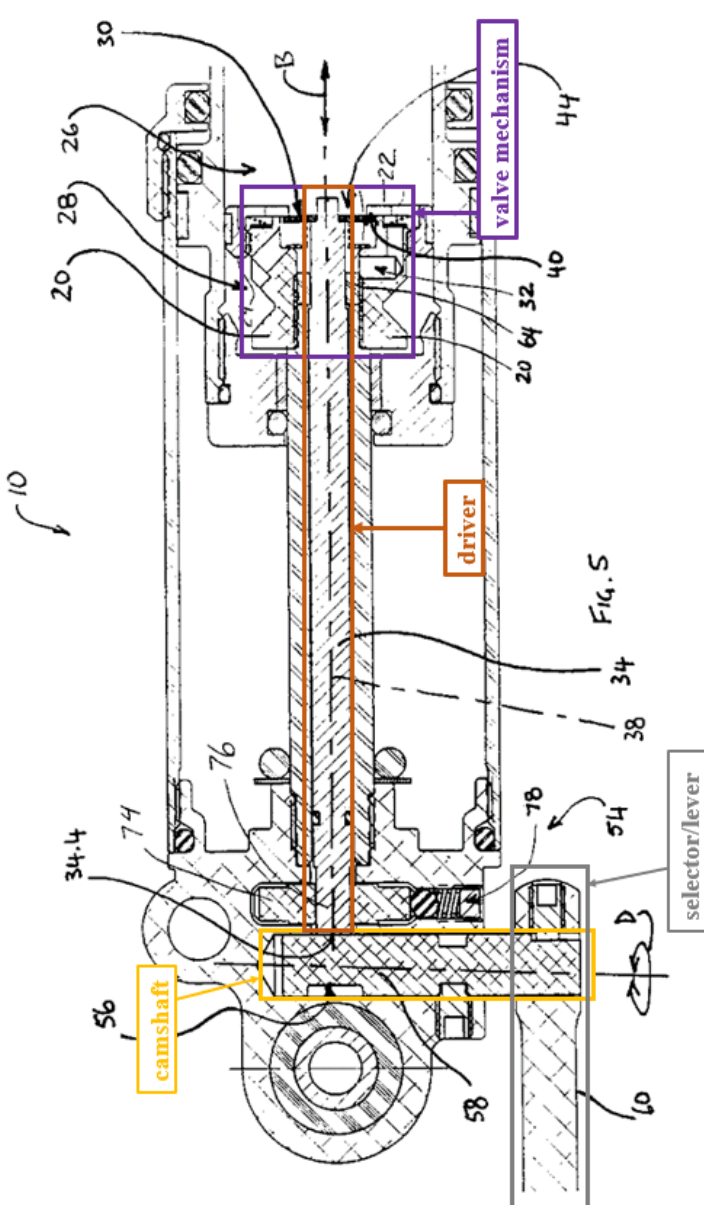
Yi discloses at least two cam surfaces corresponding to the positions of the lever, the cam surfaces configured to be engageable with the driver. Yi 5:38-43 (“The **down-flow adjusting unit 3** includes an **eccentric shaft 2** which extends into the transverse channel 15 and which is connected to the connecting end 16 of the damping adjusting rod 10. The **eccentric shaft 2** is turnable so as to move the **damping adjusting rod 10** in the axial direction to the first, second, and third axial positions.”); Yi, Figs. 5-7 (depicted below showing three cam surfaces engaged with the driver).

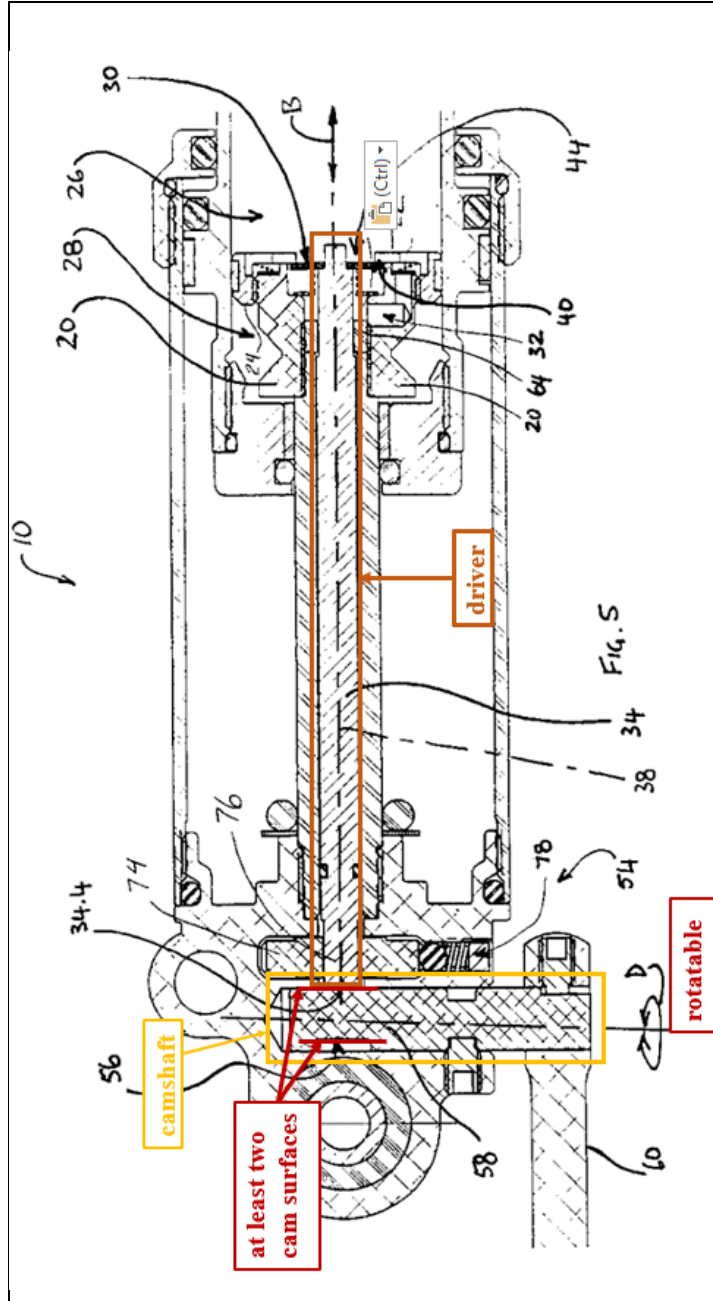
7	The actuator apparatus of claim 2 wherein the selector comprises:	See claims 1 and 2.	

Exhibit 4 – Invalidity of U.S. Patent No. 7,147,207

7a	a lever operable between the positions;	Fox discloses a lever operable between the positions. Fox, 8:24-29 (“The actuation shaft 58 is angularly displaceable by operation of the lever 60. It will be appreciated that the lever 60 is positioned outside the rest of the shock absorber 10 so as to enable a user selectively to adjust the axial position of the shaft 34 along its axis 38 by operation of the lever 60.”); Fox, Fig 5 (depicted below showing selector [lever 60] rotatable as indicated by arrow D).	Fox, Fig. 5. Yi also discloses a lever (handle 210) operable between the positions. Yi, 5:50-55 (“FIGS. 11 and 12 illustrate a second preferred embodiment of a shock absorber of this invention. The shock absorber is similar to the previous embodiment of FIG. 1, except that the eccentric shaft 2 of the down-flow adjusting unit 3 is operated via a handle 201”); Yi, Fig. 12 (depicted below with a lever [handle 201]).
----	---	---	--

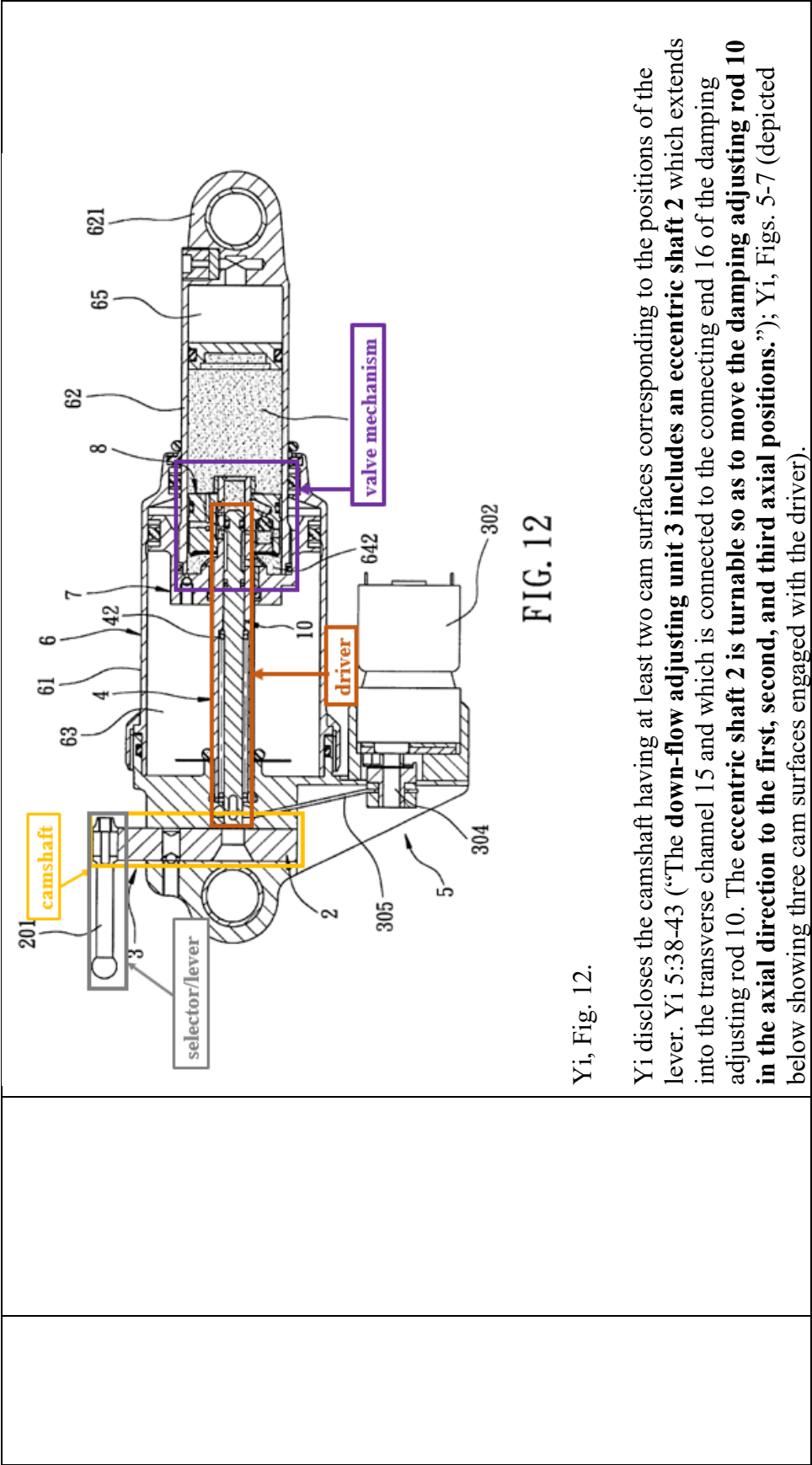


7b	the camshaft having at least two cam surfaces corresponding to the positions of the lever, the camshaft operatively connected to the lever; and	Fox discloses the camshaft operatively connected to the lever. Fox, 8:24-29 (“The actuator arrangement 54 further comprises a lever 60 connected to the actuation shaft 58 remote from the cam 56. The actuation shaft 58 is angularly displaceable by operation of the lever 60.”); Fox, Fig 5 (depicted below showing selector [lever 60] operatively connected to the camshaft).  Fox, Fig. 5. Fox discloses the camshaft having at least two cam surfaces corresponding to the positions of the lever. Fox, 8:18-22 (“The cam 56 abuts against an end 34.4 of the shaft 34 so that the shaft is axially displaceable along its longitudinal axis 38 relative to the piston 20 in response to angular displacement of the cam 56 against the end 34.4 of the shaft 34.”); Fox, Fig. 5. (depicted below).
----	---	---



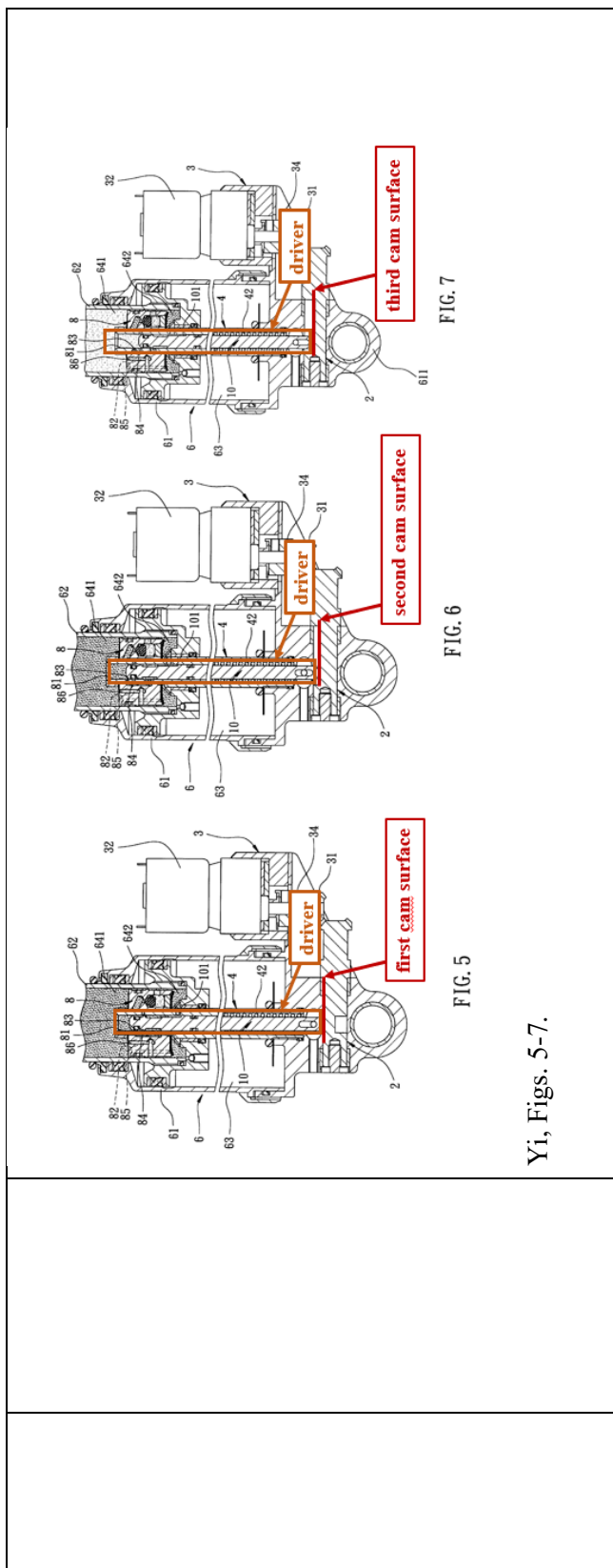
Fox, Fig. 5.

Yi also discloses the camshaft operatively connected to the lever. Yi, 5:50-55 (“FIGS. 11 and 12 illustrate a second preferred embodiment of a shock absorber of this invention. The shock absorber is similar to the previous embodiment of FIG. 1, except that **the eccentric shaft 2 of the down-flow adjusting unit 3 is operated via a handle 201**”; Yi, Fig. 12 (depicted below with a lever [handle 201]).

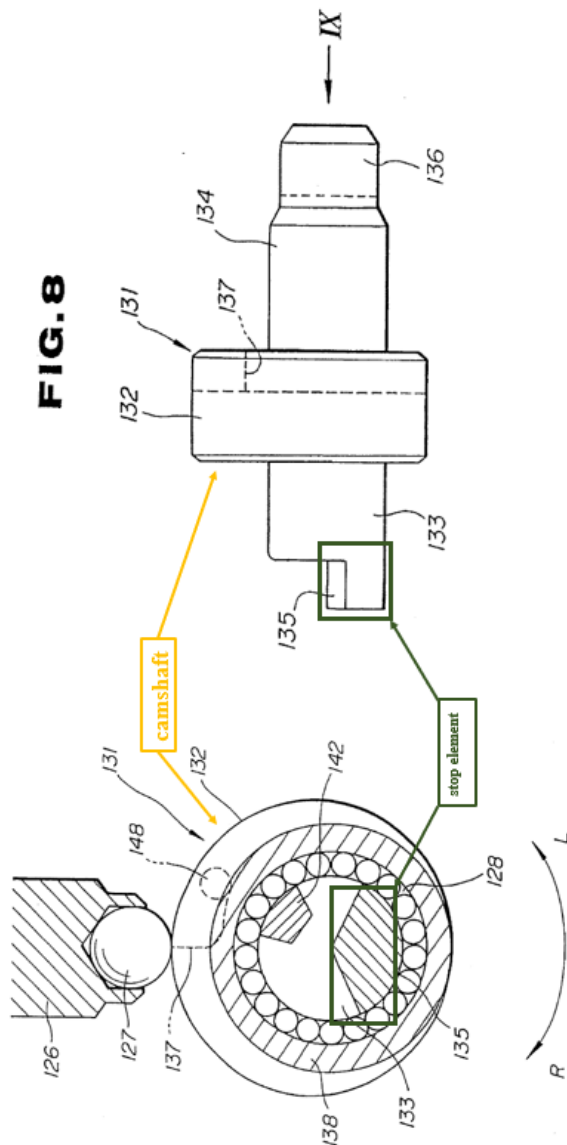
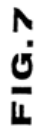


Yi, Fig. 12.

Yi discloses the camshaft having at least two cam surfaces corresponding to the positions of the lever. Yi 5:38-43 (“The **down-flow adjusting unit 3** includes an **eccentric shaft 2** which extends into the transverse channel 15 and which is connected to the connecting end 16 of the damping adjusting rod 10. The **eccentric shaft 2** is turnable so as to **move the damping adjusting rod 10 in the axial direction to the first, second, and third axial positions.**”); Yi, Figs. 5-7 (depicted below showing three cam surfaces engaged with the driver).



7c	a stop element rotatable with the selector and configured to abut against the adjuster assembly to prevent over rotation of the lever.	Nagai discloses a stop element (projection 135) rotatable with the selector (rotary actuator 146). Nagai, 6:55-61 (“As shown in FIGS. 6 and 7, a stopper bolt 141 is threaded in the housing 115 adjacent to the shaft 133, and has on its inner end an integral stopper 142 having engaged portions or surfaces 142a for engaging with an engaged surface 135a of the projection 135 of the eccentric cam 131 to limit an angular position of the eccentric cam 131 with respect to the ball 127.”); Nagai, 7:55-60 (“When the rotary actuator 146 is energized, the eccentric cam 131 is rotated to axially move the adjusting rod 126 for thereby varying the cross-sectional area of the bypass oil passage 125. Therefore, the damping forces generated by the piston 110 can be adjusted by the adjusting rod 126.”); Nagai, Figs. 6-8 (depicted below showing stop element [projection 135] rotatable with camshaft, which is operably connected to rotary actuator 146.). A POSITA would have understood that the stop element is rotatable with the selector because the selector (rotary actuator 146) is operably connected the camshaft, and therefore, rotation of the rotary actuator shaft rotates stop element (projection 135) on the camshaft. FIG. 6 Nagai, Fig. 6.
----	---	--



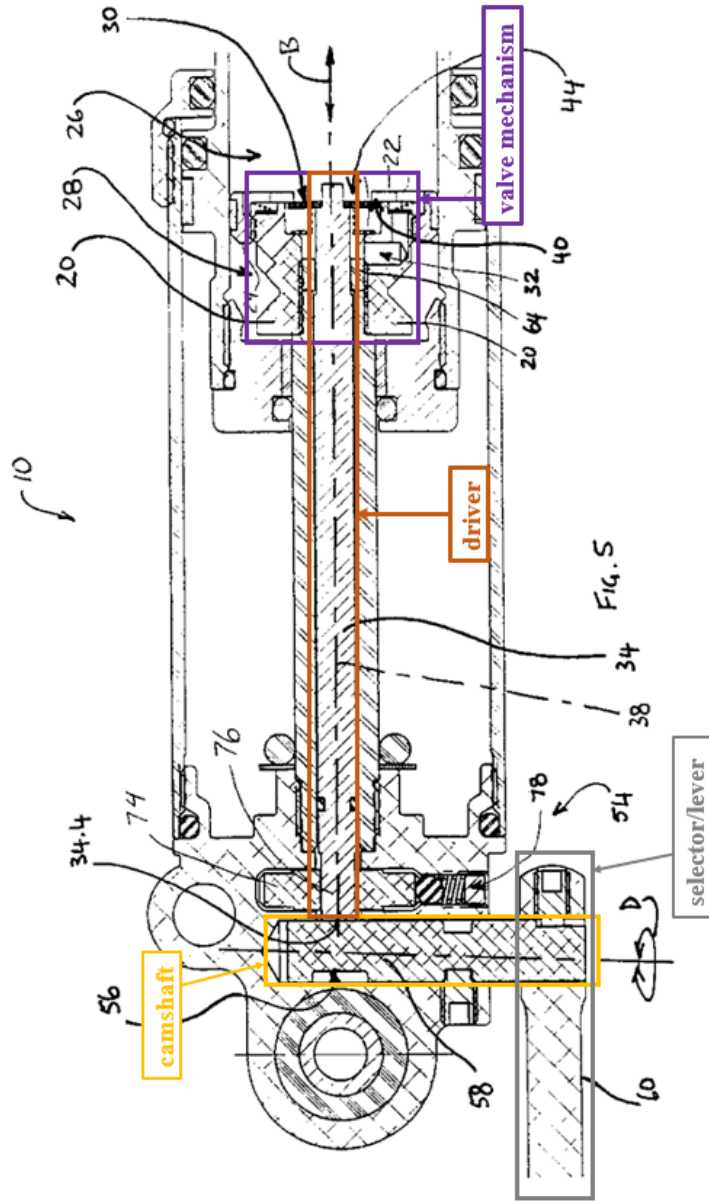
Nagai, Fig. 7-8.

Nagai discloses that the stop element prevents over rotation. Nagai, 7:1-13 (“[O]ptimum-damping-force angular range are defined by the stopper 142 for stopping the angular displacement of the eccentric cam 131 in a direction L as shown in FIG. 1(b) and a stopper pin 148, as described later on, for stopping the angular displacement of the eccentric cam 131 in a direction R as shown in FIG. 1(b). The eccentric cam 131 is normally placed within this optimum-damping-force angular range to control the damper assembly 101 to produce optimum damping forces. **Thereupon, if the eccentric cam 131 is placed in the minimum-damping-force angular position by engagement between the stopper 142 and the projection 135, it controls the damper assembly 101 to produce minimum damping force, but yet optimum damping force.**”).

While Nagai does not explicitly disclose a lever, Fox does. Fox, 8:24-29 (“The actuation shaft 58 is angularly displaceable by **operation of the lever 60**. It will be appreciated that the lever 60 is

Exhibit 4 – Invalidity of U.S. Patent No. 7,147,207

positioned outside the rest of the shock absorber 10 so as to **enable a user selectively to adjust** the axial position of the shaft 34 along its axis 38 by operation of the lever 60.”); Fox, Fig 5 (depicted below showing selector [lever 60] operably coupled to the camshaft and rotatable as indicated by arrow D).

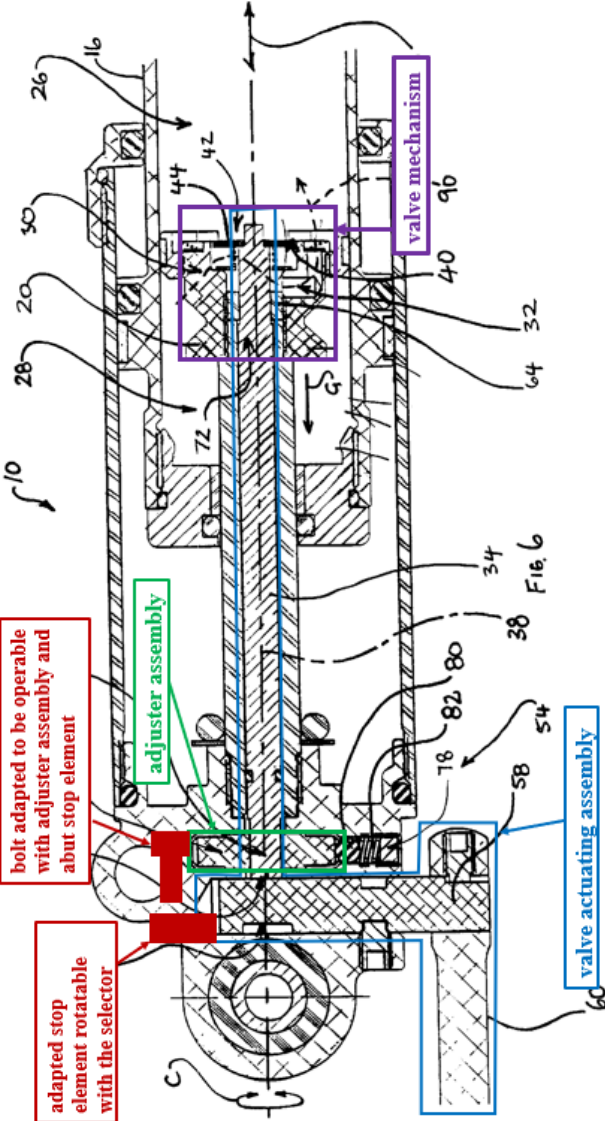


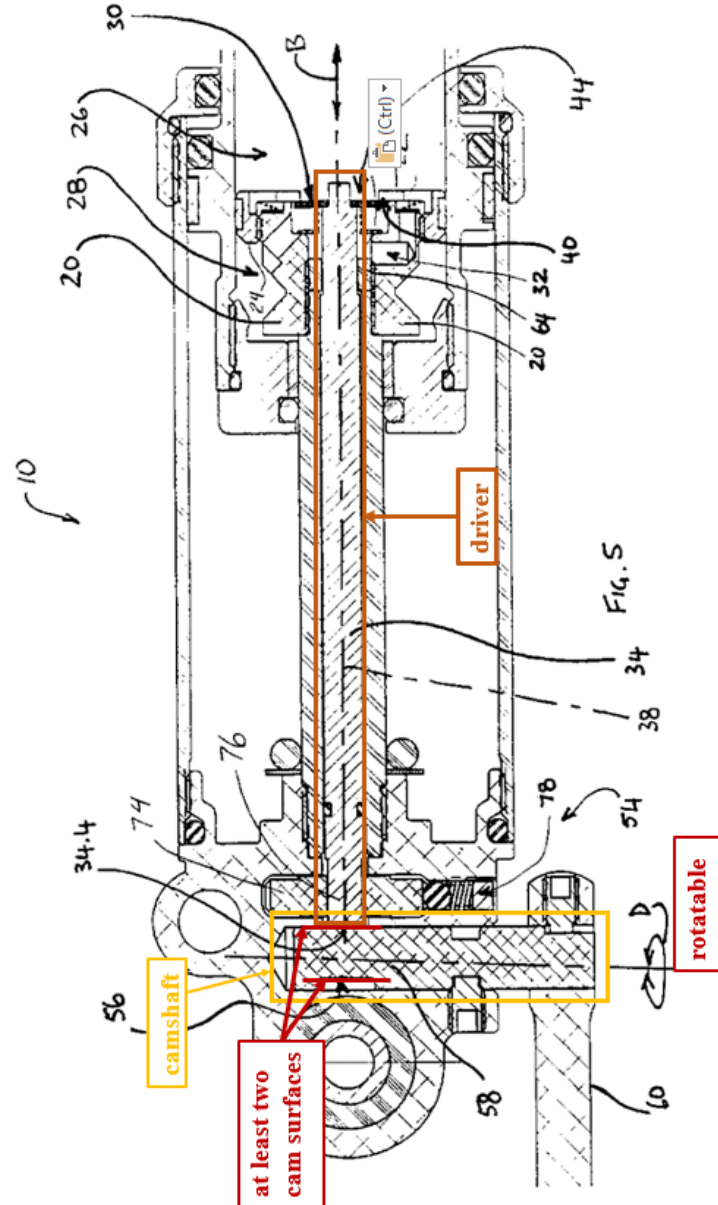
Fox, Fig. 5.

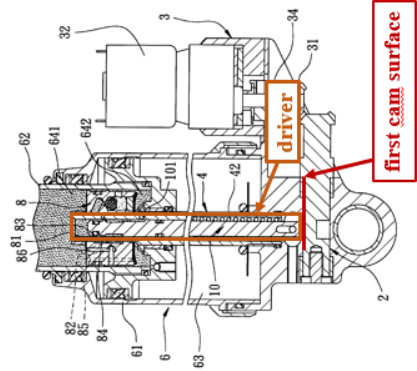
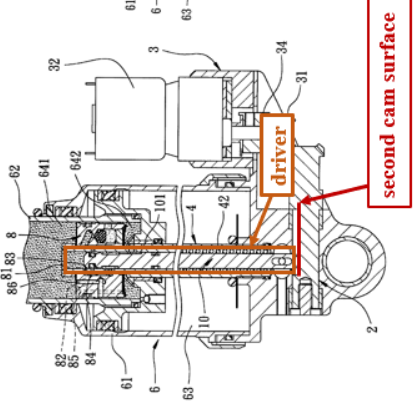
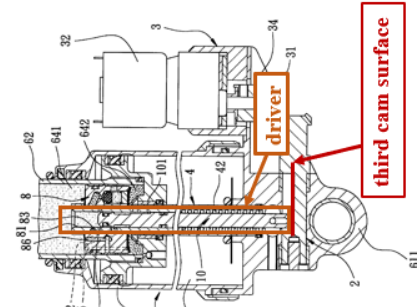
It would have been obvious to a POSITA to apply a stop element as taught by Nagai with the selector of Fox to prevent over rotation. Like Nagai’s rotary actuator, Fox’s lever is operably couple to the camshaft, therefore the lever and camshaft rotate as a unit and stopping rotation of the camshaft would stop rotation of the lever. Thus, the stop element would prevent over rotation of the lever.

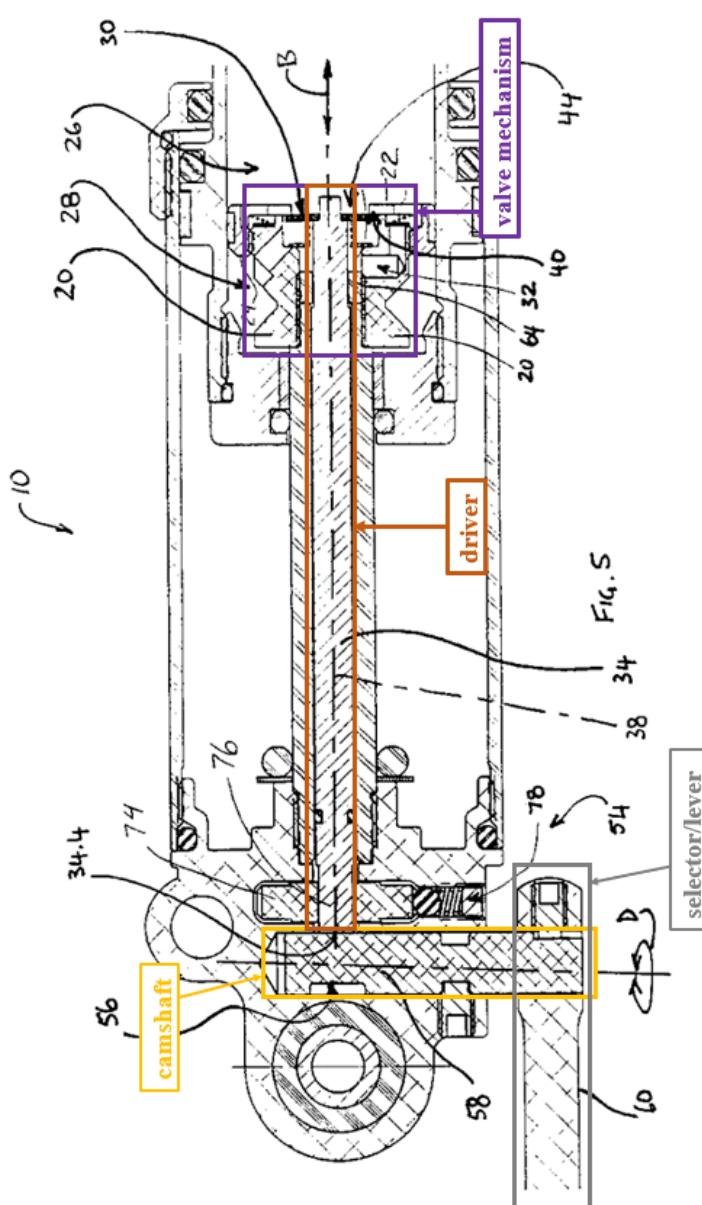
Exhibit 4 – Invalidity of U.S. Patent No. 7,147,207

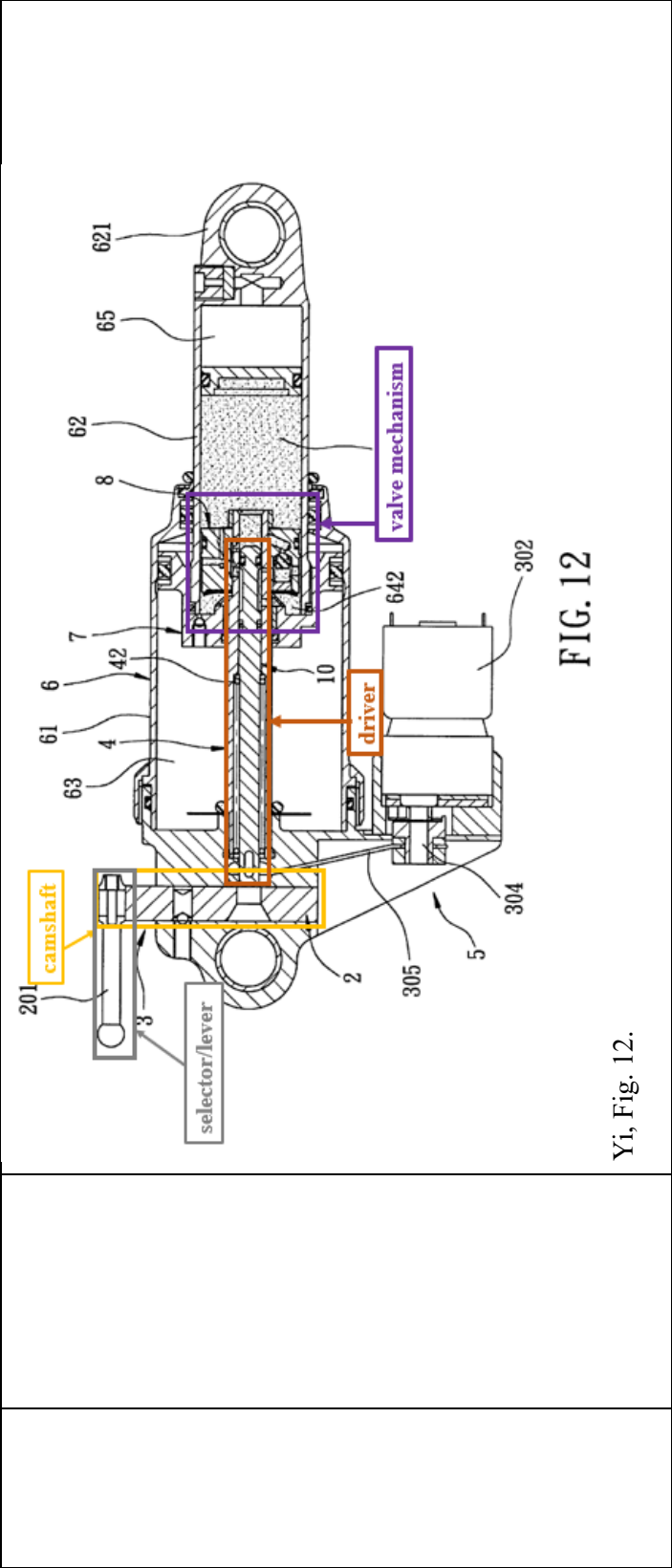
	Nagai discloses that the angular displacement of the stop element can be fixed by a bolt. Nagai, 7:61-64. (“The stopper bolt 141 is fixed by the lock nut 143 after the stopper 142 is set to an angular position in which it engages the projection 135 of the eccentric cam 131 and which is defined within a frequently used angular range.”). Fox discloses an adjuster assembly that is rotatable through the use of a dial. Fox, 10:36-42 (“This can be effected by the user by angularly displacing the dial 74 thereby angularly to displace the shaft 34 as indicated by arrow C. When the shaft is rotated in this manner, the blocking component 64 is caused to ride along the internal passage 72 thereby variably to block the port 62 so as to change the rebound damping of the shock absorber 10.”) <i>See also</i> claim 1b. A POSITA would have understood that a bolt displaces axially in response to angular rotation as a function of its threading. The bolt for setting the angular position of the stop element from Nagai could be adapted to function with the dial 74 of Fox as a matter of design choice. This would create a system where angular displacement of dial 74 would result in angular displacement of the bolt, and therefore axial movement of the bolt, adjusting the location where the stop element contacts the bolt. The bolt could be operably connected to and a component of the adjuster assembly, thus creating a stop element rotatable with the selector and configured to abut against the adjuster assembly to prevent over rotation of the lever. <i>See</i> Fox, Fig. 6 (depicted below and annotated to demonstrate one possible way in which the bolt of Nagai could be adapted to function with the adjuster assembly of Fox).
--	---

		 The diagram shows a cross-sectional view of a mechanical assembly. Key components and labels include: adapted stop element rotatable with the selector (red box, pointing to part 18) bolt adapted to be operable with adjuster assembly and about stop element (red box, pointing to part 20) adjuster assembly (green box, pointing to part 34) valve actuating assembly (blue box, pointing to part 54) valve mechanism (purple box, pointing to part 40) Other numbered parts include 16, 26, 30, 32, 38, 42, 44, 58, 60, 64, 72, 80, and 82. The drawing is labeled "Fig. 6" and includes a section line "10-10". Fox, Fig. 6. A POSITA would have been motivated to implement the teachings of Nagai into the actuating apparatus of Fox because both are directed to adjustment mechanisms for suspension systems. Fox, 5:8-13 (“The present invention is directed to a shock absorber which uses an adjustment component such as a damping adjuster rod, or shaft, having two degrees of freedom of movement, each of the degrees of freedom of movement being associated with adjustment of a particular damping characteristic of the shock absorber.”); Nagai, 1:10-13 (“The present invention relates to a hydraulic damper for use on a motor vehicle or the like, and more particularly to a damping force adjusting mechanism for such a hydraulic damper.”). Additionally, a POSITA would have understood that it is desirable to achieve the “optimum damping forces” in the Fox system as described in Nagai. Nagai, 2:35-39 (“If the limiting means is arranged to stop the eccentric cam at a position for optimum damping forces, then the eccentric cam is stopped at the position for optimum damping forces even upon failure of the control system or the rotary actuator.”).
--	--	--

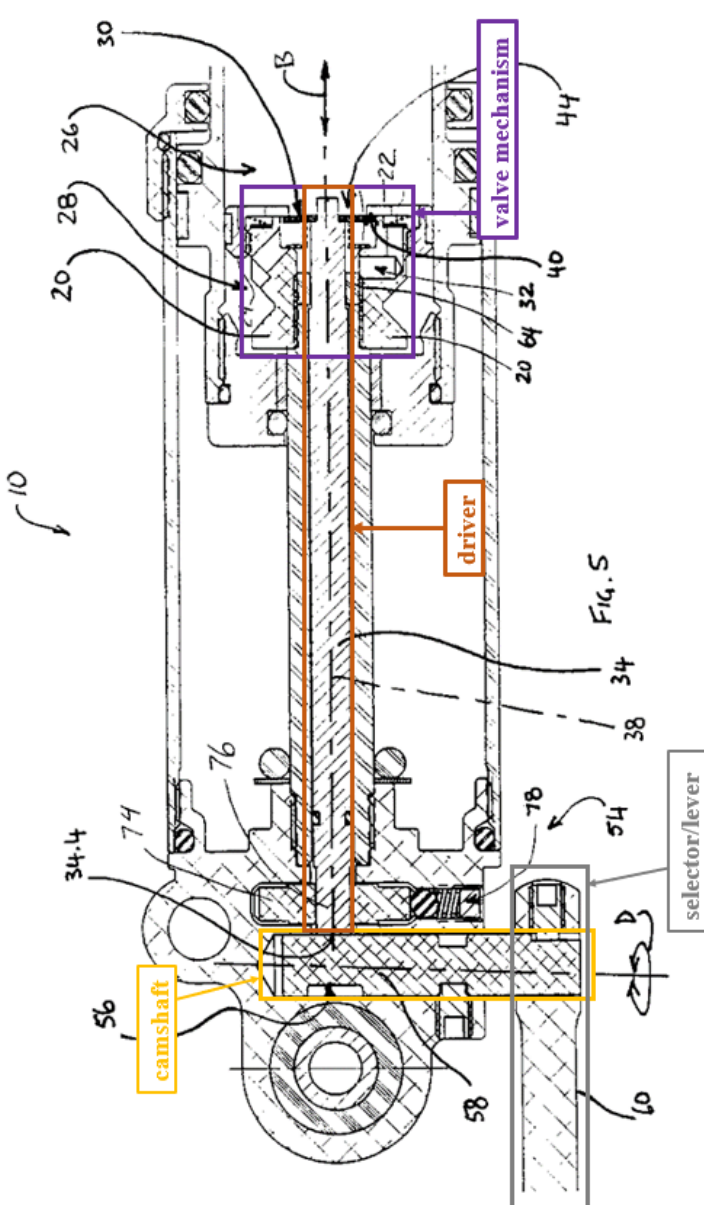
8	The actuator apparatus of claim 7 wherein the cam surfaces are disposed substantially parallel to the camshaft axis.	Fox discloses the cam surfaces are disposed substantially parallel to the camshaft axis. Fox, 8:18-22 (“The cam 56 abuts against an end 34.4 of the shaft 34 so that the shaft is axially displaceable along its longitudinal axis 38 relative to the piston 20 in response to angular displacement of the cam 56 against the end 34.4 of the shaft 34.”); Fox, Fig. 5 (depicted below show the at least two cam surfaces as substantially parallel to the camshaft axis).  Yi discloses the cam surfaces are disposed substantially parallel to the camshaft axis. Yi 5:38-43 (“The down-flow adjusting unit 3 includes an eccentric shaft 2 which extends into the transverse channel 15 and which is connected to the connecting end 16 of the damping adjusting rod 10. The eccentric shaft 2 is turnable so as to move the damping adjusting rod 10 in the axial direction to the first, second, and third axial positions.”); Yi, Figs. 5-7 (depicted below showing three cam surfaces substantially parallel to the cam axis).
---	--	--

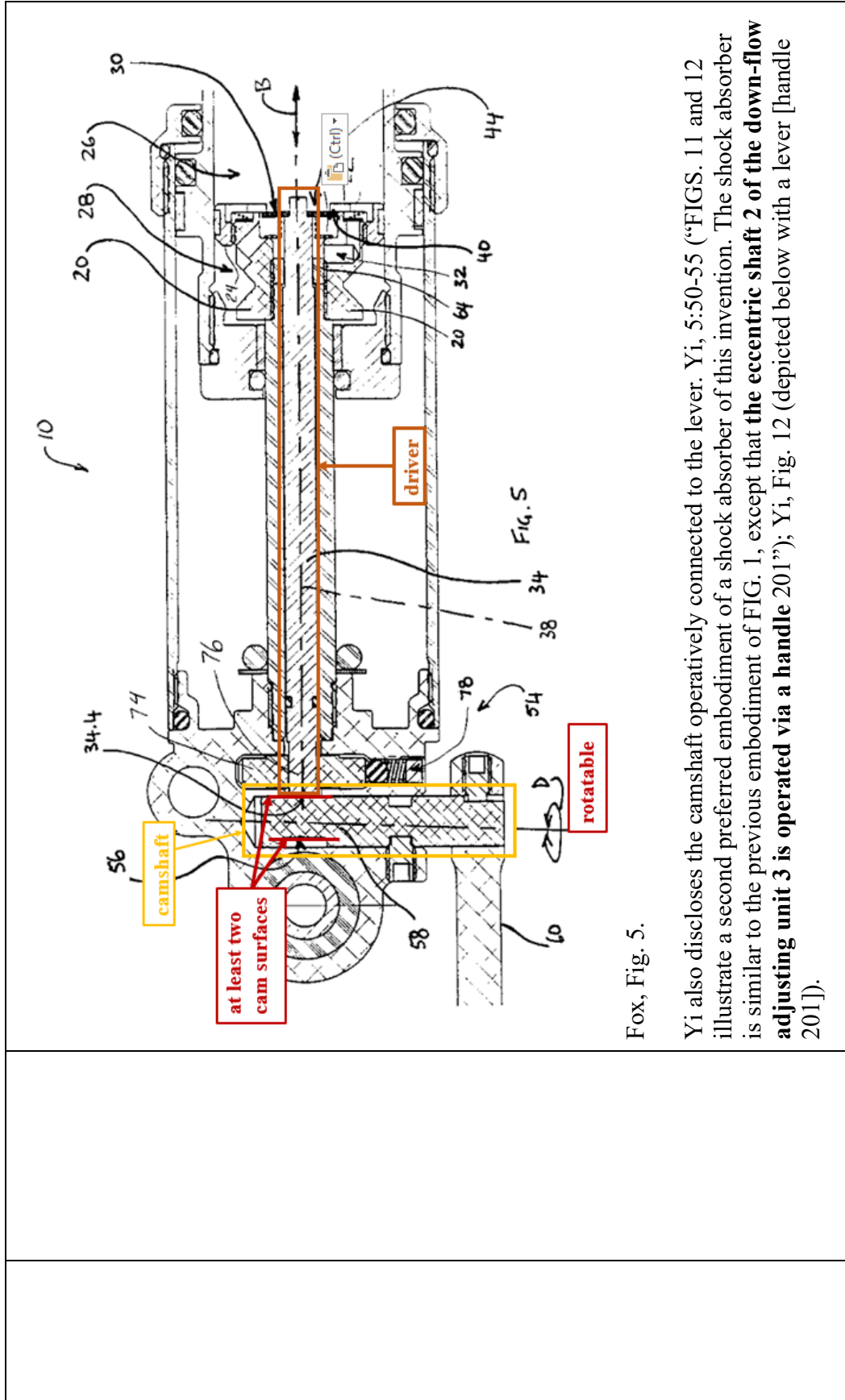
		 FIG. 5
		 FIG. 6
		 FIG. 7
10	The actuator apparatus of claim 2 wherein the selector comprises:	Yi, Figs. 5-7. See claims 1 and 2.

10a	a lever operable between the positions;	Fox discloses a lever operable between the positions. Fox, 8:24-29 (“The actuation shaft 58 is angularly displaceable by operation of the lever 60. It will be appreciated that the lever 60 is positioned outside the rest of the shock absorber 10 so as to enable a user selectively to adjust the axial position of the shaft 34 along its axis 38 by operation of the lever 60.”); Fox, Fig 5 (depicted below showing selector [lever 60] rotatable as indicated by arrow D).  The diagram, labeled Fig. 5, is a cross-sectional view of a shock absorber assembly 10. A lever 60 is shown at the bottom, with a curved arrow D indicating its rotation. The lever 60 is connected to an actuation shaft 58. A camshaft 56 is shown with a cam 74. A driver is shown in the center. A valve mechanism 44 is shown on the right. Various other components are labeled with numbers: 20, 22, 26, 28, 30, 32, 34, 36, 38, 40, 42, 44, 46, 48, 50, 52, 54, 56, 58, 60, 62, 64, 66, 68, 70, 72, 74, 76, 78, 80, 82, 84, 86, 88, 90, 92, 94, 96, 98, 100. The lever 60 is shown in a position where it can rotate around its axis 38. The actuation shaft 58 is shown with a cam 74. The driver is shown in the center. The valve mechanism 44 is shown on the right. The diagram is labeled Fig. 5. Fox, Fig. 5. Yi also discloses a lever operable between the positions. Yi, 5:50-55 (“FIGS. 11 and 12 illustrate a second preferred embodiment of a shock absorber of this invention. The shock absorber is similar to the previous embodiment of FIG. 1, except that the eccentric shaft 2 of the down-flow adjusting unit 3 is operated via a handle 201”); Yi, Fig. 12 (depicted below with a lever [handle 201]).
-----	--	--



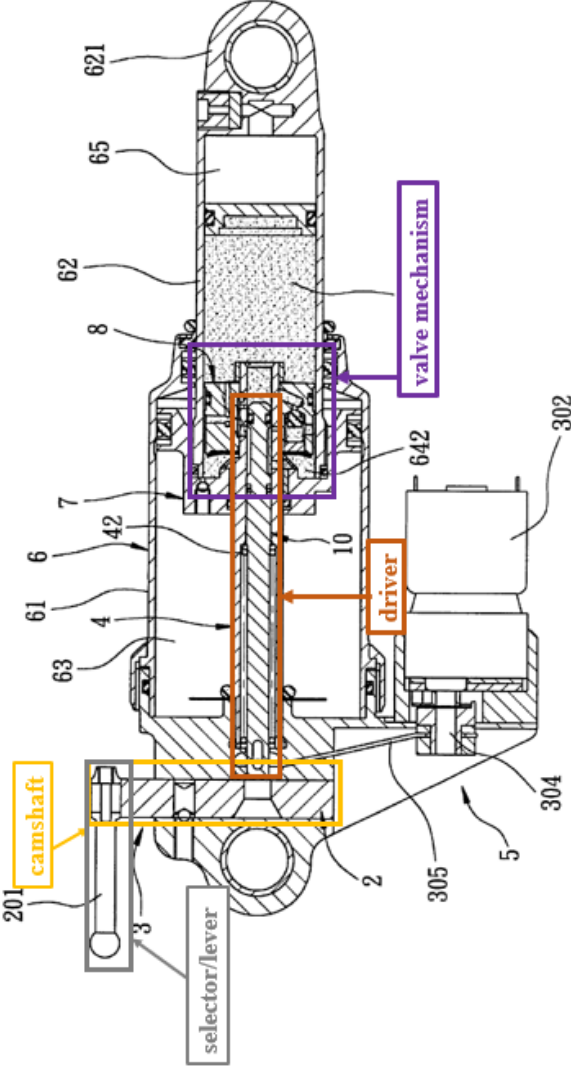
Yi, Fig. 12.

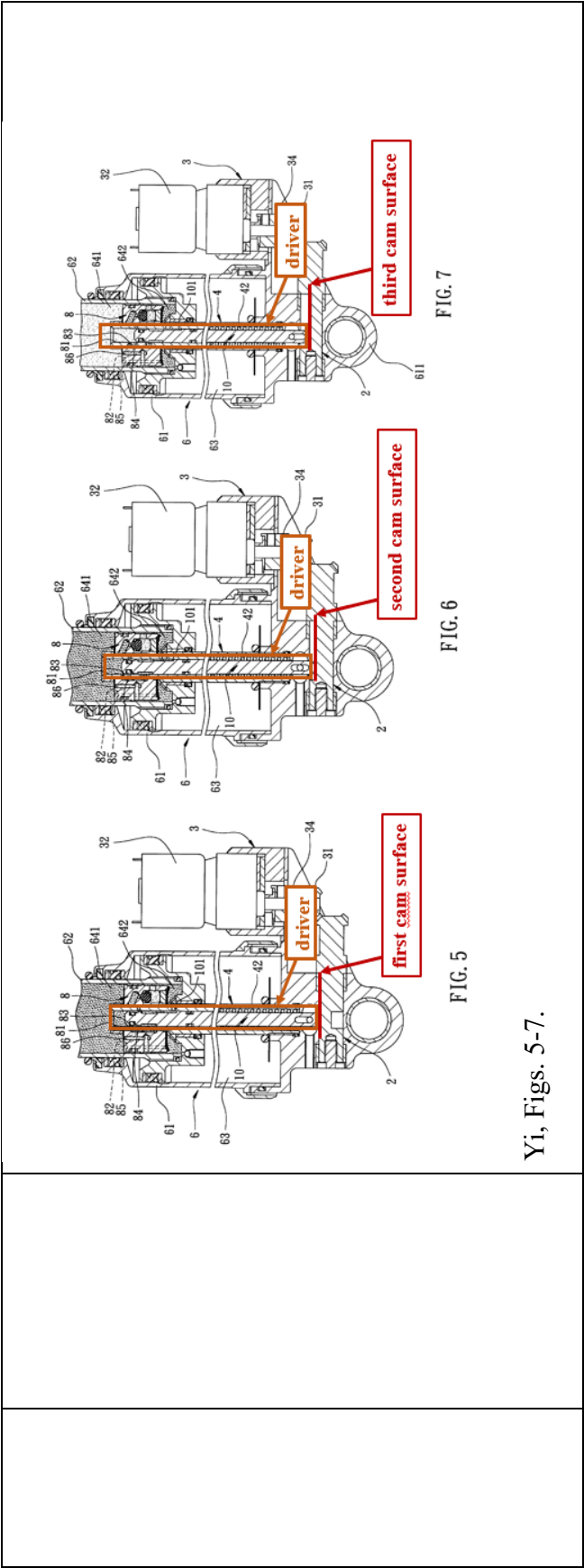
10b	the camshaft having a plurality of cam surfaces, at least one of said cam surfaces configured to be engageable with the driver, the cam surfaces corresponding to the positions of the lever, the cam surfaces disposed substantially parallel to the axis of the camshaft, the camshaft operatively connected to the lever.	Fox discloses the camshaft operatively connected to the lever. Fox, 8:24-29 (“The actuator arrangement 54 further comprises a lever 60 connected to the actuation shaft 58 remote from the cam 56. The actuation shaft 58 is angularly displaceable by operation of the lever 60.”); Fox, Fig 5 (depicted below showing selector [lever 60] operatively connected to the camshaft).  Fox, Fig. 5. Fox discloses the camshaft having a plurality of cam surfaces, at least one of said cam surfaces configured to be engageable with the driver, the cam surfaces corresponding to the positions of the lever, the cam surfaces disposed substantially parallel to the axis of the camshaft. Fox, 8:18-22 (“The cam 56 abuts against an end 34.4 of the shaft 20 so that the shaft is axially displaceable along its longitudinal axis 38 relative to the piston 20 in response to angular displacement of the cam 56 against the end 34.4 of the shaft 34.”); Fox, Fig. 5. (depicted below show the cam surface engaged with the driver and substantially parallel to the axis of the camshaft).
-----	---	--



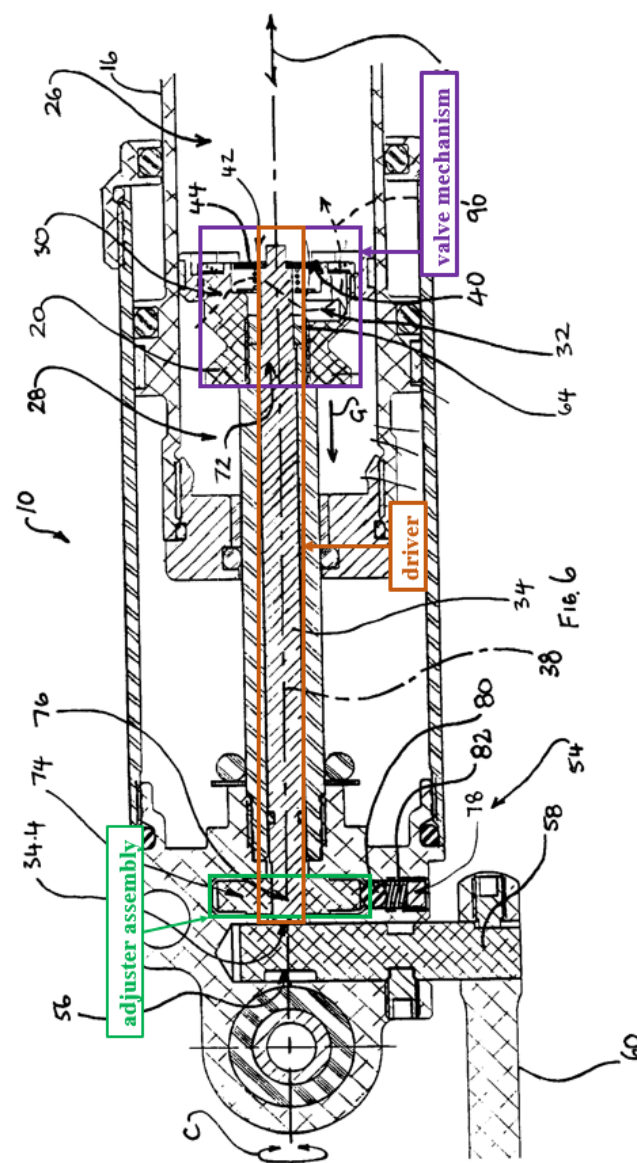
Fox, Fig. 5.

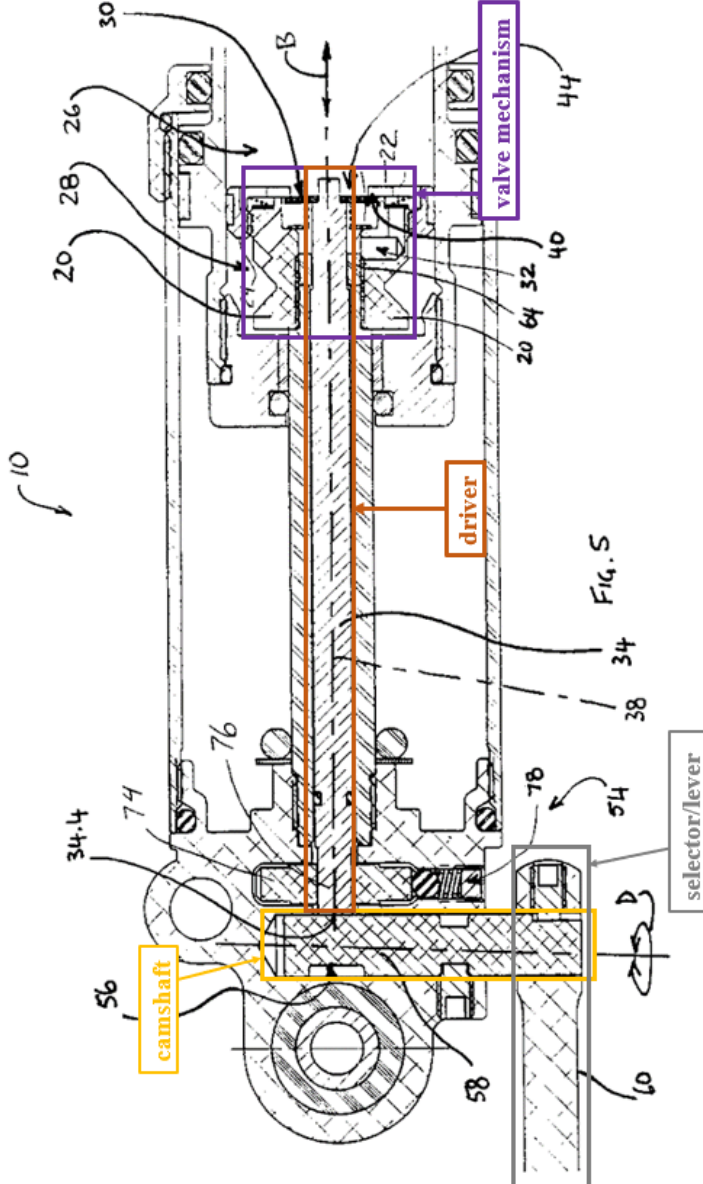
Yi also discloses the camshaft operatively connected to the lever. Yi, 5:50-55 (“FIGS. 11 and 12 illustrate a second preferred embodiment of a shock absorber of this invention. The shock absorber is similar to the previous embodiment of FIG. 1, except that **the eccentric shaft 2 of the down-flow adjusting unit 3 is operated via a handle 201**”; Yi, Fig. 12 (depicted below with a lever [handle 201])).

	 FIG. 12 Yi, Fig. 12. Yi discloses the camshaft having a plurality of cam surfaces, at least one of said cam surfaces configured to be engageable with the driver, the cam surfaces corresponding to the positions of the lever, the cam surfaces disposed substantially parallel to the axis of the camshaft. Yi 5:38-43 (“The down-flow adjusting unit 3 includes an eccentric shaft 2 which extends into the transverse channel 15 and which is connected to the connecting end 16 of the damping adjusting rod 10. The eccentric shaft 2 is turnable so as to move the damping adjusting rod 10 in the axial direction to the first, second, and third axial positions.”); Yi, Figs. 5-7 (depicted below showing three cam surfaces engaged with the driver and substantially parallel to the camshaft axis of rotation).	
--	--	--

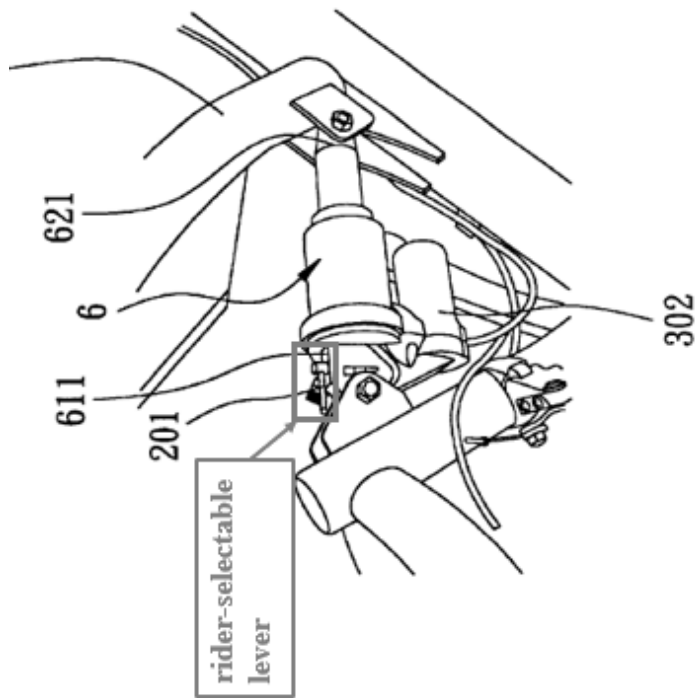


Yi, Figs. 5-7.

11	The actuator apparatus of claim 10 wherein the adjuster assembly is operatively connected to the driver to position the driver relative to camshaft of the selector.	Fox discloses the adjuster assembly is operatively connected to the driver to position the driver relative to camshaft of the selector. Fox discloses an adjuster assembly (actuator 74) operatively connected to the shaft 34 of the valve actuating assembly. Fox, 9:14-21 (“As can best be seen with reference to FIG. 6, the shock absorber 10 further comprises an actuator, generally indicated by reference numeral 74, operatively connected to the shaft 34 such that the shaft 34 can be angularly displaced in the directions of arrows C about its longitudinal axis 38 relative to the piston 20 in response to operation of the actuator 74. The actuator 74 is in the form of a dial, or thumb wheel, Secured on the shaft 34 at 76.”). Fox, Fig. 6 (depicted below showing adjuster assembly 74 operatively connected the driver [shaft 34]).  Fox, Fig. 6. A POSITA would understand that the adjuster assembly (actuator 74) rotates driver (shaft 34), while leaving the position of camshaft unchanged, therefore the driver (shaft 34) has moved angularly relatively to the position of the camshaft of the selector.
----	---	---

12	The actuator apparatus of claim 1 wherein the positions of the valve actuating assembly are rider-selectable positions.	Fox discloses that the positions of the valve actuating assembly are rider-selectable positions. Fox, 8:25-30 (“It will be appreciated that the lever 60 is positioned outside the rest of the shock absorber 10 so as to enable a user selectively to adjust the axial position of the shaft 34 along its axis 38 by operation of the lever 60 outside the rest of the shock absorber 10”); Fox, 5:46-53 (“In one embodiment the rod is moved axially by the engagement of a proximal end of the rod with a rotary cam surface which is rotated by the user through a lever. The distal end of the rod, in this embodiment, abuts a restriction component, or compression Stroke valve Stack, thus adjusting the amount of force required to cause the valve Stack to open.”); Fox, Fig. (depicted below showing lever 60 for rider-selectable positions).  Fox, Fig. 5. Yi also discloses that the positions of the valve actuating assembly are rider-selectable positions. Yi, 5:52-55 (“The shock absorber is similar to the previous embodiment of FIG. 1, except that the
----	--	---

eccentric shaft 2 of the down-flow adjusting unit 3 is operated via a handle 201.”); Yi, Fig. 11 (cropped below showing rider-selectable positions with handle 201).



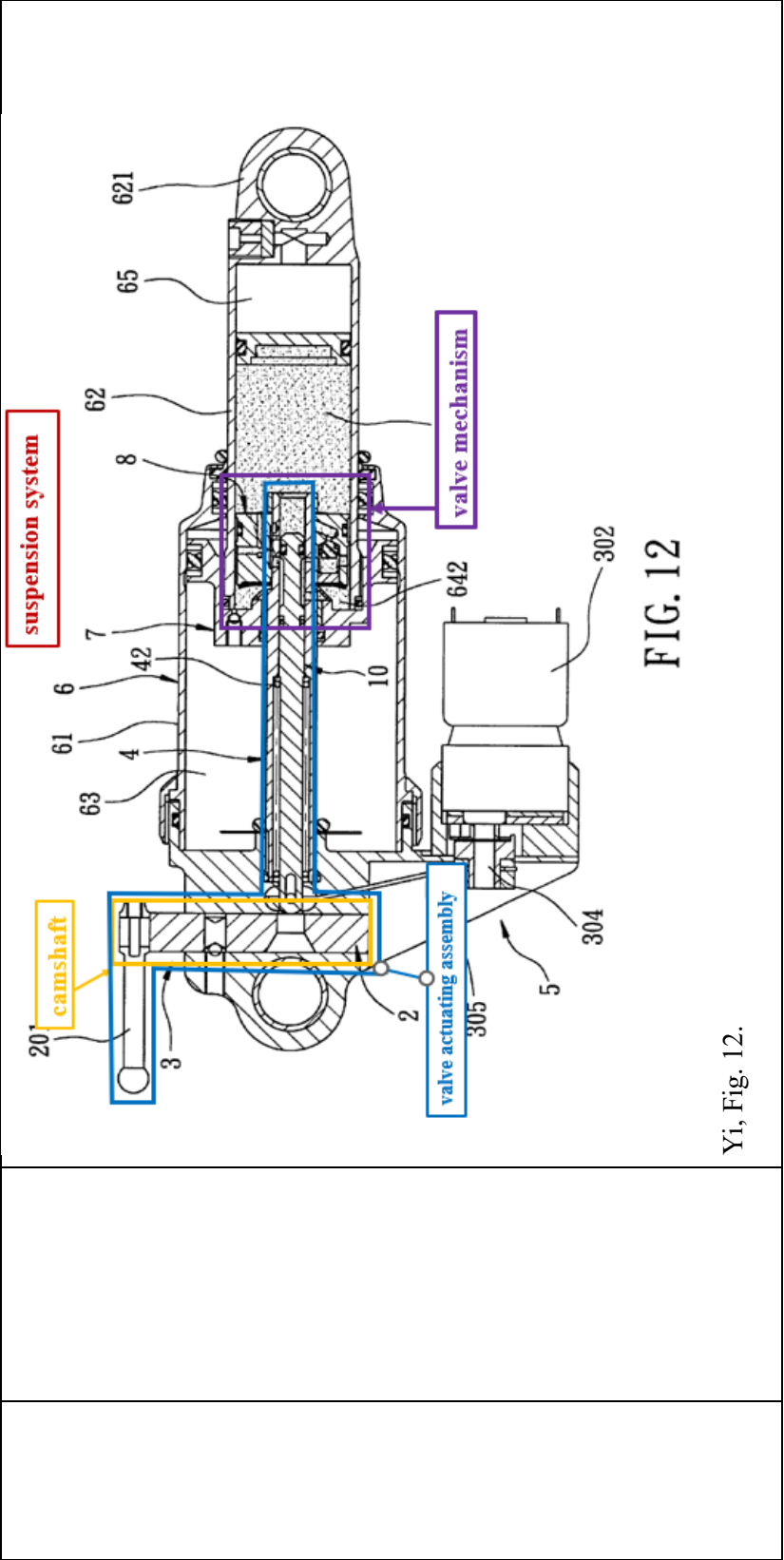
Yi, Fig. 11.

Exhibit

5

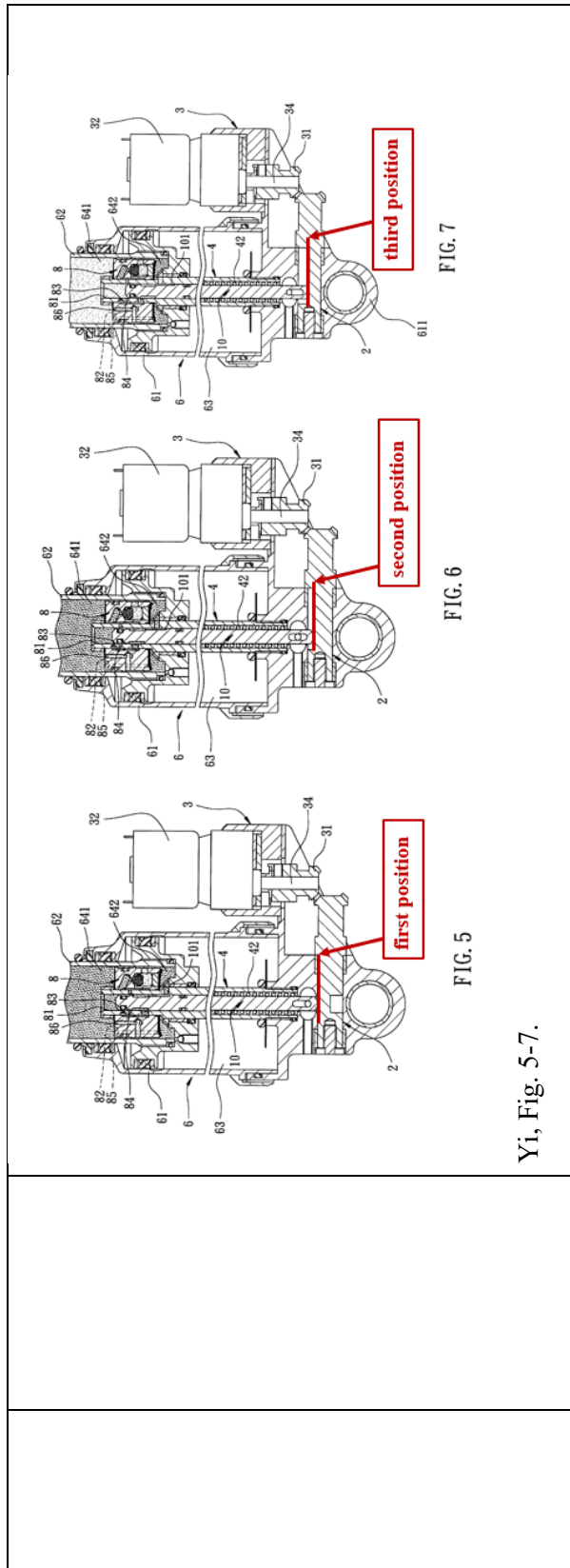
Claim No.	'207 Patent	Yi Alone or in View of One or More of JP279 and Nagai Renders the Claims Obvious
1	An actuator apparatus for controlling a valve mechanism of a suspension system, the actuator apparatus comprising:	Yi discloses an actuator apparatus for controlling a valve mechanism of a suspension system. Yi, 3:1-6 (“The shock absorber 6 is mounted on a frame 100 of the bicycle, and includes opposing first and second cylinders 61, 62, a hollow shaft 4, first, second and third pistons 7, 8, 9, first, second, third and fourth valves 851, 831, 861, 821, a damping adjusting rod 10, an up-flow adjusting unit 5, and a down-flow adjusting unit 3.”); Yi, Fig. 12 (depicted below). FIG. 12 Yi, Fig. 12.

1a	a valve actuating assembly operatively connected to the valve mechanism, the valve actuating assembly including a camshaft rotatable between at least two positions to adjust the valve mechanism between various suspension settings; and	Yi discloses a valve actuating assembly (down flow adjustment unit 3) operatively connected to the valve mechanism, the valve actuating assembly including a camshaft. Yi, 5:38-44 (“The down-flow adjusting unit 3 includes an eccentric shaft 2 which extends into the transverse channel 15 and which is connected to the connecting end 16 of the damping adjusting rod 10. The eccentric shaft 2 is turnable so as to move the damping adjusting rod 10 in the axial direction to the first, second, and third axial positions.”). Yi discloses a camshaft rotatable between at least two positions to adjust the valve mechanism between various suspension settings. Yi, 5:38-43 (“The down-flow adjusting unit 3 includes an eccentric shaft 2 which extends into the transverse channel 15 and which is connected to the connecting end 16 of the damping adjusting rod 10. The eccentric shaft 2 is turnable so as to move the damping adjusting rod 10 in the axial direction to the first, second, and third axial positions.”); Yi, 5:65-6:4 (By simply adjusting the damping adjusting rod 10 among the first, second and third axial positions and the first, second and third angular positions, the shock absorber of this invention can have various damping effects so as to adapt to different road conditions, thereby eliminating the drawback associated with the prior art.”). Yi, Fig. 12 (depicted below showing a camshaft [eccentric shaft 2]). Yi, Figs. 5-7 (depicted below showing three camshaft positions).
----	--	--



Yi, Fig. 12.

Exhibit 5 — Invalidity of U.S. Patent No. 7,147,207

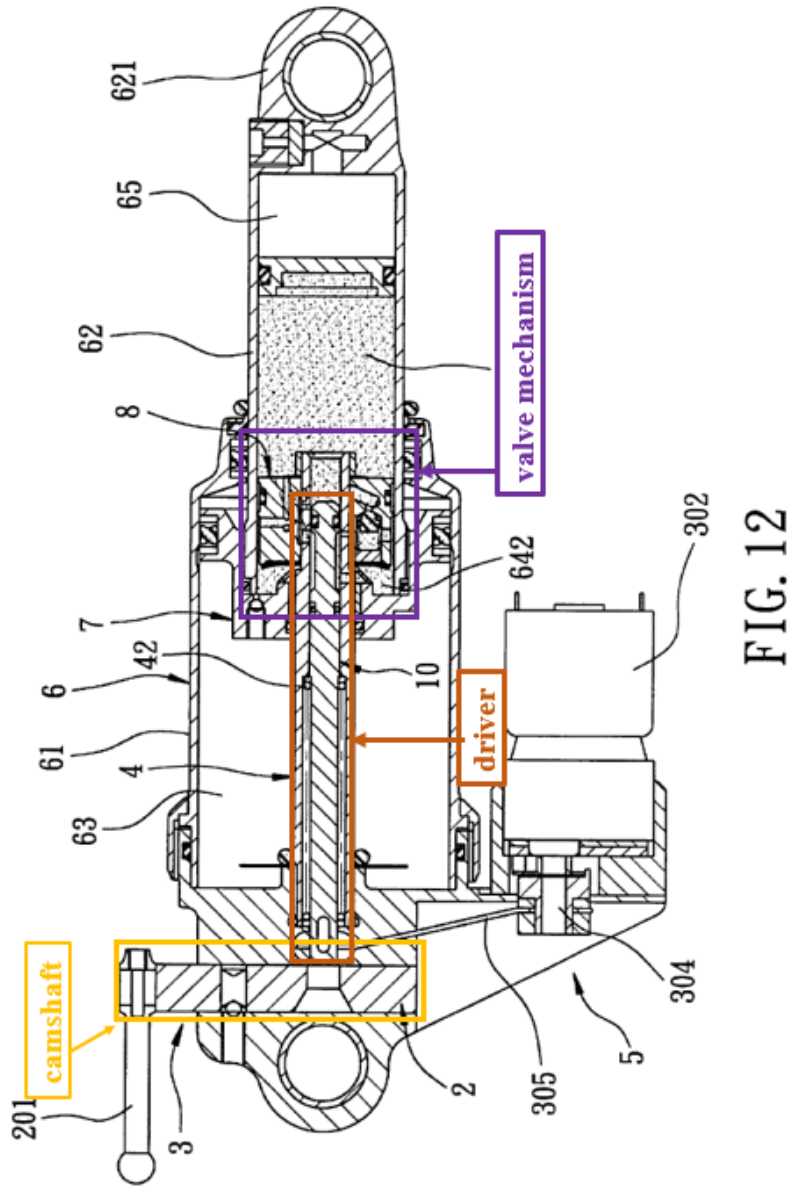


Yi, Fig. 5-7.

1b	an adjuster assembly operatively connected to the valve actuating assembly for adjusting the damping characteristics corresponding to at least one of the positions of the valve actuating assembly independently of the damping characteristics corresponding to another position of the valve actuating assembly.	JP2516279Y2 discloses an adjuster assembly operatively connected to the valve actuating assembly. JP2516279Y2 at 1 (“The present invention relates to a damping force adjusting mechanism for adjusting the damping force of a hydraulic shock absorber.”); <i>Id.</i> at 1-2 (“A slider is provided, and two inclined surfaces with different angles are formed in the same direction on the slider. One of the inclined surfaces abuts the rear end of one adjusting rod, and the other inclined surface has the other. The rear ends of the adjusting rods were brought into contact with each other, and the displacement amounts of the two adjusting rods were made different by the rotation of the motor.”); <i>id.</i> at 2 (“By moving the slider, the compression-side damping force and the extension-side damping force can be made simultaneously, and the adjustment width of the extension-side damping force can be made smaller than the adjustment width of the compression-side damping force.”). <i>Id.</i>, Fig. 1, Fig. 4. Figures 1 and 4 depict an inclined surface attached to a feed shaft 50 that pushes surface 44 forward and backwards, driving adjusting rod up and down to actuate valves in the valve mechanism.
----	--	---

	【第1図】 adjuster assembly driver valve mechanism	JP2516279Y2, Figs. 1 and 4. Yi discloses a valve actuating assembly. Yi, 3:1-6 (“The shock absorber 6 is mounted on a frame 100 of the bicycle, and includes opposing first and second cylinders 61, 62, a hollow shaft 4, first, second and third pistons 7, 8, 9, first, second, third and fourth valves 851, 831, 861, 821, a damping adjusting rod 10, an up-flow adjusting unit 5, and a down-flow adjusting unit 3.”). Yi, 5:38-46 (“The down-flow adjusting unit 3 includes an eccentric shaft 2 which extends into the transverse channel 15 and which is connected to the connecting end 16 of the damping adjusting rod
--	--	---

10. The eccentric shaft 2 is turnable so as to **move the damping adjusting rod 10 in the axial direction to the first, second, and third axial positions.**”); Yi, Fig. 12 (valve actuating assembly).

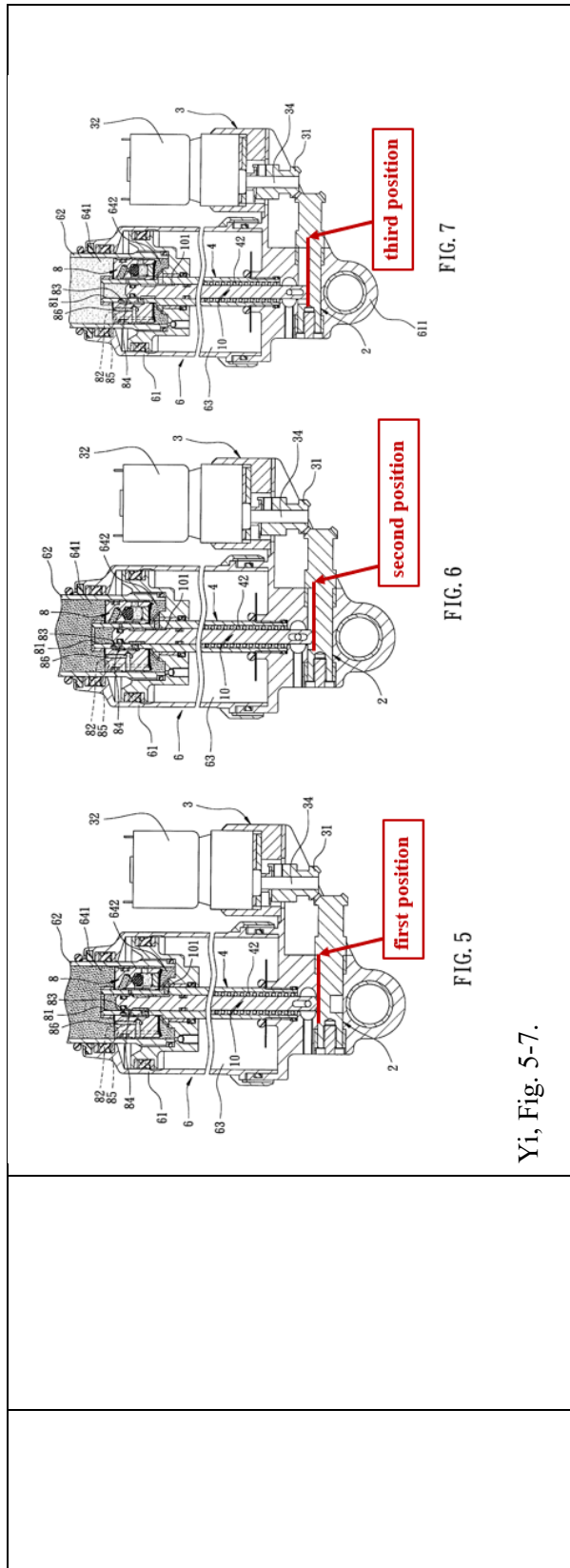


Yi, Fig. 12.

JP2516279Y2 discloses that its slider is moved radially through a rotating motor to move the driver rod. JP2516279Y2 at 3 (“Therefore, by rotating the motor 47, since the feed shaft 50 rotates via 48 and 49, the slider 43 is moved in the radial direction, and the rear end is in contact with the tapered surface 44 of the slider 43. The push rod end 33 and the tapered surface push rod 34 whose rear end is in contact with 45 moves back and forth.”); See also *id.* Fig. 1, 4.

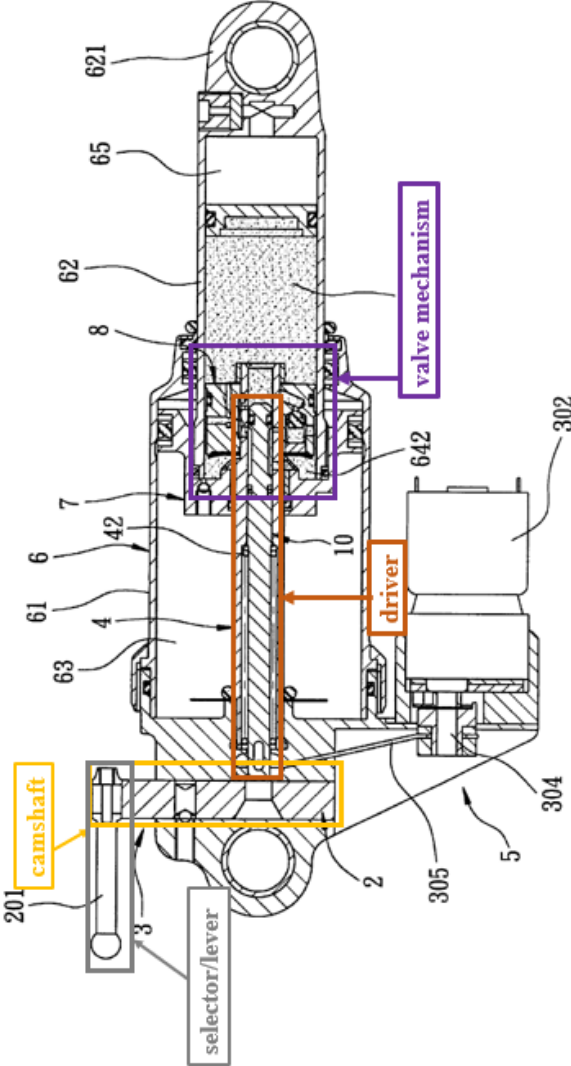
	A POSITA would have been motivated to combine JP2516279Y2's adjuster assembly, which is a slider with an incline surface, to Yi's actuating assembly to allow the damping characteristics corresponding to at least one of the positions of the valve actuating assembly to be adjusted independently of the damping characteristics corresponding to another position of the valve actuating assembly. Yi notes that "conventional shock absorbers normally provide a limited range of damping effects and cannot be adjusted to provide a wider range of damping effects for different road conditions." Yi, 1:13-16. Therefore, it would have been desirable to add the additional range of damping effects provide by JP2516279Y2's adjuster assembly, specifically the "fine adjustment" offered by the slider mechanism. <i>See</i> JP2516279Y2 at 3. A POSITA would have had an expectation of success when combining Yi and JP2516279Y2 because Yi already discloses multiple adjusting units, and one of them could be adapted to operate JP2516279Y2's slider because "it is apparent that various modifications and variations can be made without departing from the spirit of the present invention." Yi, 6:5-7. Additionally, both Yi and JP2516279Y2 are directed to damping adjustable shock absorbers. Yi, 1:7-8("This invention relates to a damping adjustable shock absorber"); JP2516279Y2 at 1 ("The present invention relates to a damping force adjusting mechanism for adjusting the damping force of a hydraulic shock absorber.") For example, JP2516279Y2's "feed shaft 50 rotates via 48 and 49, the slider 43 is moved in the radial direction" could be adapted to operate with Yi's driving unit 302 in place of JP2516279Y2's motor 47. <i>See</i> JP2516279Y2, Fig. 4; Yi, Fig. 12. A POSITA would have understood that the slider mechanism could be adapted to be driven by driving unit 302 and operated in any one of the three axial positions discloses in Yi to allow the desirable "fine adjustment," JP2516279Y2 at 3, and a "wider range of damping effects," Yi, 1:13-16. <i>See</i> Yi, Fig. 5-7; Yi, Fig. 12 (depicted below and annotated to demonstrate one possible way in which the adjuster assembly of JP2516279Y2 could be adapted to function with the driving unit of Yi).	
--	---	--

Exhibit 5 — Invalidity of U.S. Patent No. 7,147,207



Yi, Fig. 5-7.

		FIG. 12 Yi, Fig. 12.
2	The actuator apparatus of claim 1 wherein the valve actuating assembly comprises:	See claim 1. Yi's actuating assembly (down flow adjustment unit 3) comprises:

	positions.”); Yi, 5:50-55 (“FIGS. 11 and 12 illustrate a second preferred embodiment of a shock absorber of this invention. The shock absorber is similar to the previous embodiment of FIG. 1, except that the eccentric shaft 2 of the down-flow adjusting unit 3 is operated via a handle 201”)Fig. 12 (depicted below showing selector [handle 201] operatively connected to driver through the camshaft [eccentric shaft 2]).  FIG. 12 Yi, Fig. 12.
3	The actuator apparatus of claim 2 wherein the selector comprises: See claims 1 and 2. Yi’s “selector” comprises:

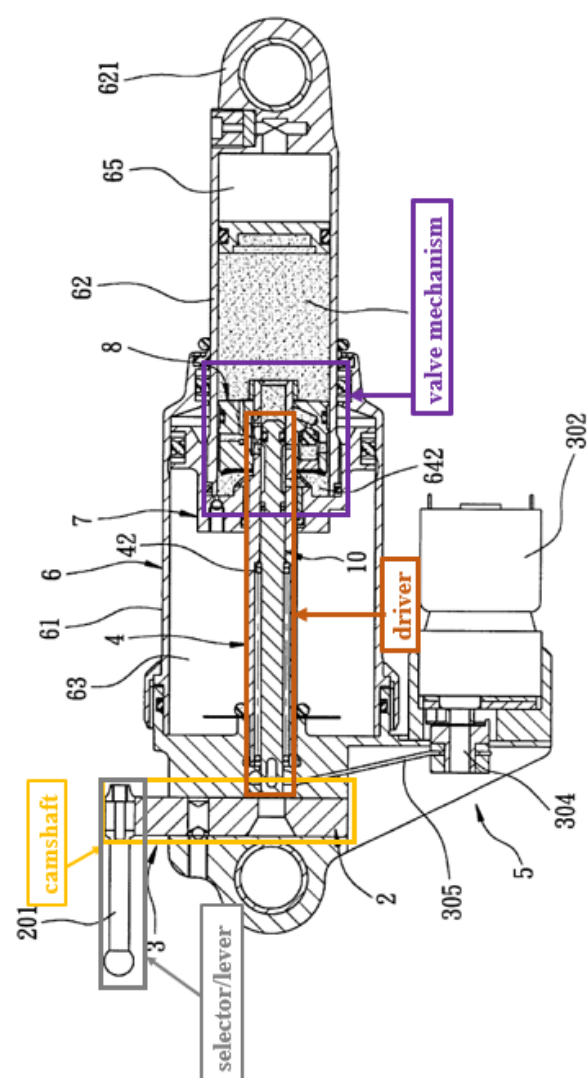
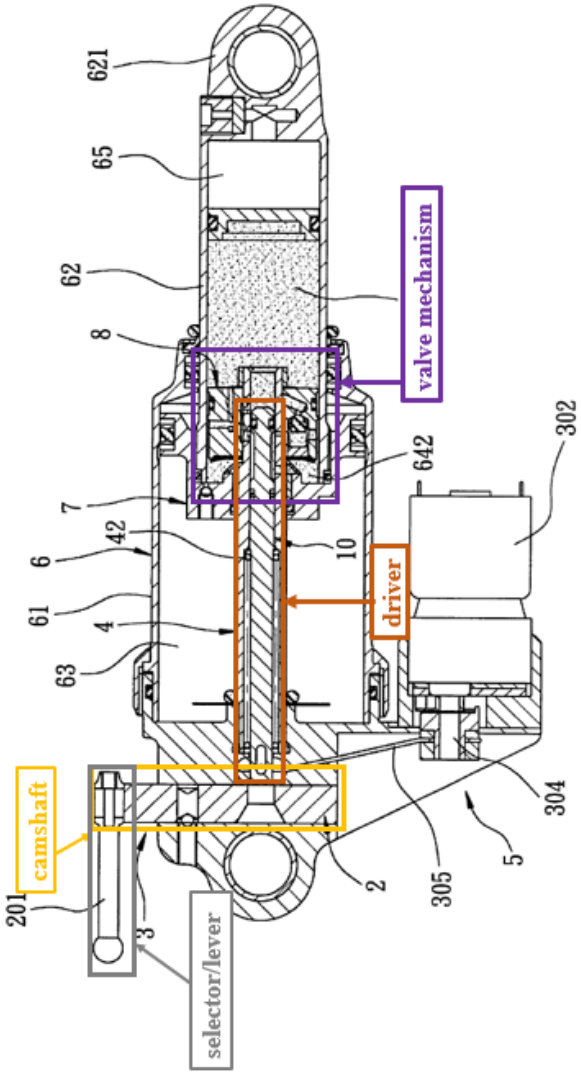
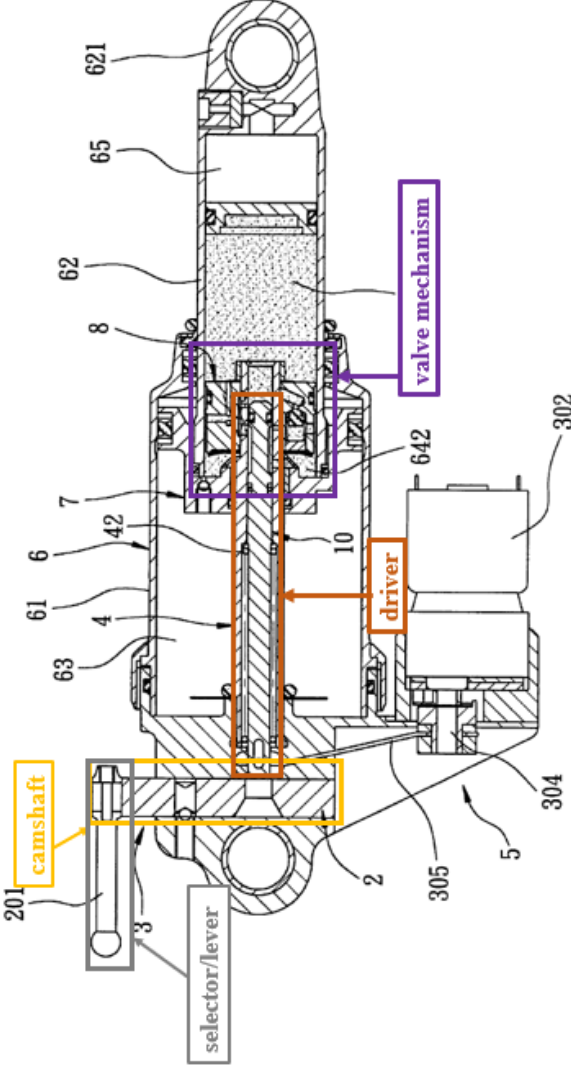
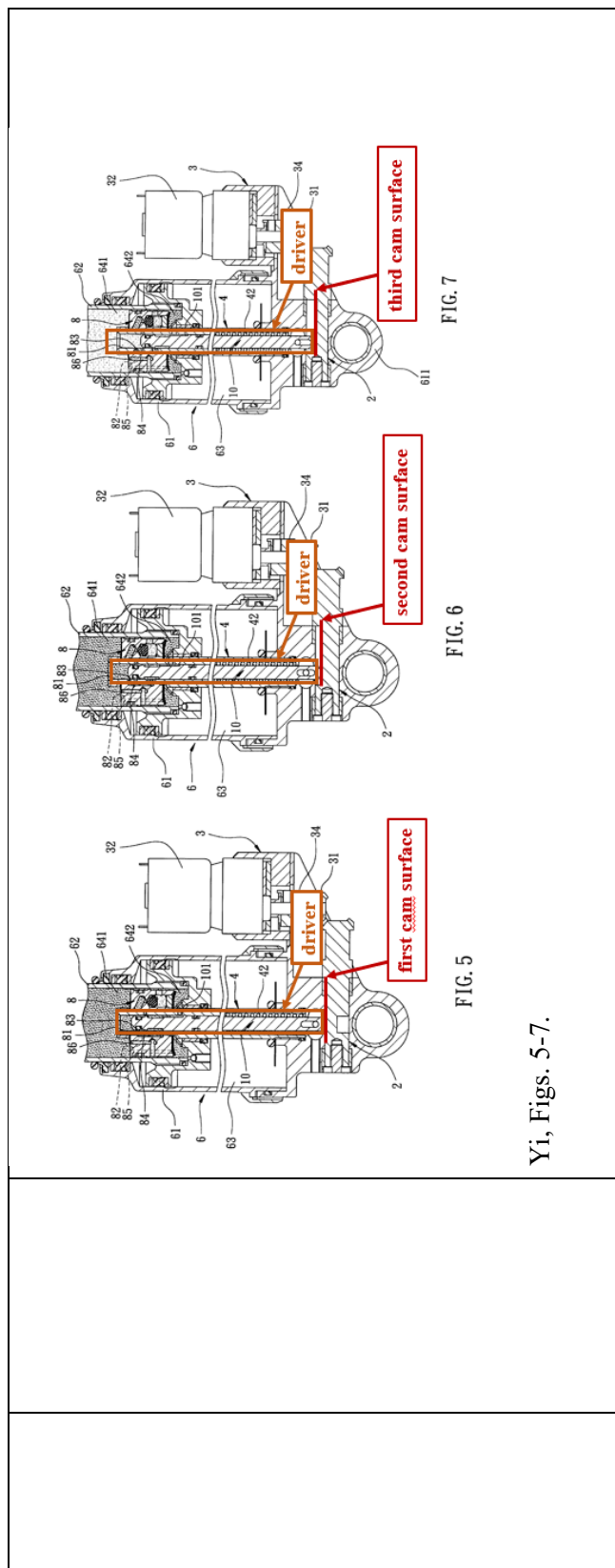
3b	the camshaft operatively connected to the lever, and at least two cam surfaces corresponding to the positions of the lever, the cam surfaces configured to be engageable with the driver.	Yi discloses a camshaft operatively connected to the lever. Yi, 5:50-55 (“FIGS. 11 and 12 illustrate a second preferred embodiment of a shock absorber of this invention. The shock absorber is similar to the previous embodiment of FIG. 1, except that the eccentric shaft 2 of the down-flow adjusting unit 3 is operated via a handle 201”); Yi, Fig. 12 (depicted below with a lever [handle 201]).  Yi, Fig. 12. Yi discloses at least two cam surfaces corresponding to the positions of the lever, the cam surfaces configured to be engageable with the driver. Yi 5:38-43 (“The down-flow adjusting unit 3 includes an eccentric shaft 2 which extends into the transverse channel 15 and which is connected to the connecting end 16 of the damping adjusting rod 10. The eccentric shaft 2 is turnable so as to move the damping adjusting rod 10 in the axial direction to the first, second, and third axial positions.”); Yi, Figs. 5-7 (depicted below showing three cam surfaces engaged with the driver).
----	--	---

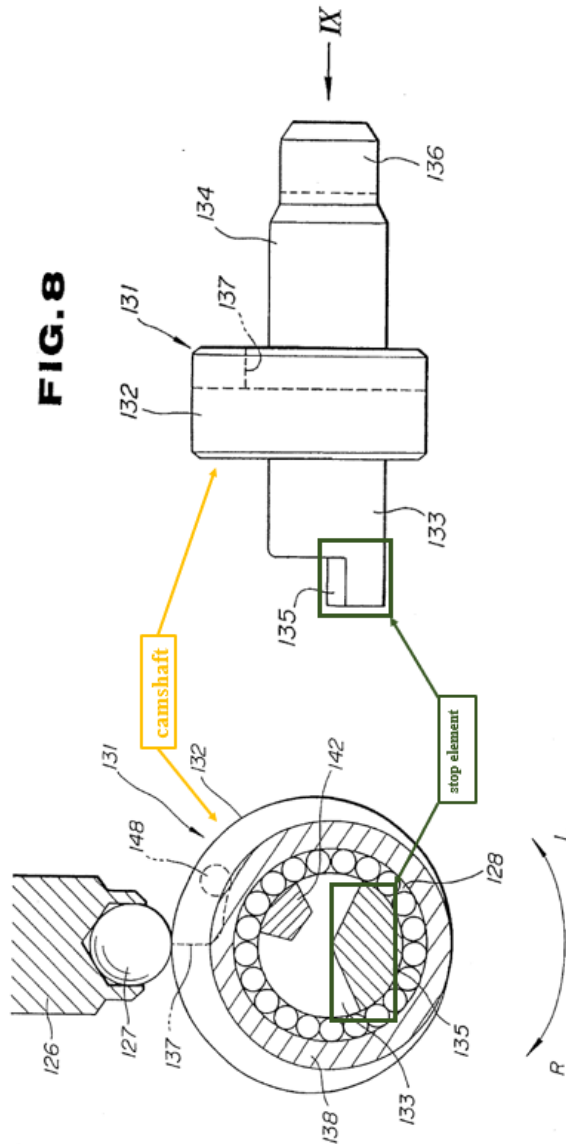
		FIG. 5
		FIG. 6
		FIG. 7
7	The actuator apparatus of claim 2 wherein the selector comprises:	Yi, Figs. 5-7. See claims 1 and 2.

7a	a lever operable between the positions;	Yi also discloses a lever operable between the positions. Yi, 5:50-55 (“FIGS. 11 and 12 illustrate a second preferred embodiment of a shock absorber of this invention. The shock absorber is similar to the previous embodiment of FIG. 1, except that the eccentric shaft 2 of the down-flow adjusting unit 3 is operated via a handle 201”); Yi, Fig. 12 (depicted below with a lever [handle 201]).  FIG. 12 Yi, Fig. 12.
----	---	---

7b	the camshaft having at least two cam surfaces corresponding to the positions of the lever, the camshaft operatively connected to the lever; and	Yi also discloses the camshaft operatively connected to the lever. Yi, 5:50-55 (“FIGS. 11 and 12 illustrate a second preferred embodiment of a shock absorber of this invention. The shock absorber is similar to the previous embodiment of FIG. 1, except that the eccentric shaft 2 of the down-flow adjusting unit 3 is operated via a handle 201”); Yi, Fig. 12 (depicted below with a lever [handle 201]).  FIG. 12 Yi, Fig. 12. Yi discloses the camshaft having at least two cam surfaces corresponding to the positions of the lever. Yi 5:38-43 (“The down-flow adjusting unit 3 includes an eccentric shaft 2 which extends into the transverse channel 15 and which is connected to the connecting end 16 of the damping adjusting rod 10. The eccentric shaft 2 is turnable so as to move the damping adjusting rod 10 in the axial direction to the first, second, and third axial positions.”); Yi, Figs. 5-7 (depicted below showing three cam surfaces engaged with the driver).
----	--	---



7c	a stop element rotatable with the selector and configured to abut against the adjuster assembly to prevent over rotation of the lever.	Nagai discloses a stop element (projection 135) rotatable with the selector (rotary actuator 146). Nagai, 6:55-61 (“As shown in FIGS. 6 and 7, a stopper bolt 141 is threaded in the housing 115 adjacent to the shaft 133, and has on its inner end an integral stopper 142 having engaged portions or surfaces 142a for engaging with an engaged surface 135a of the projection 135 of the eccentric cam 131 to limit an angular position of the eccentric cam 131 with respect to the ball 127.”); Nagai, 7:55-60 (“When the rotary actuator 146 is energized, the eccentric cam 131 is rotated to axially move the adjusting rod 126 for thereby varying the cross-sectional area of the bypass oil passage 125. Therefore, the damping forces generated by the piston 110 can be adjusted by the adjusting rod 126.”); Nagai, Figs. 6-8 (depicted below showing stop element [projection 135] rotatable with camshaft, which is operably connected to rotary actuator 146.). A POSITA would have understood that the stop element is rotatable with the selector because the selector (rotary actuator 146) is operably connected the camshaft, and therefore, rotation of the rotary actuator shaft rotates stop element (projection 135) on the camshaft. FIG. 6 Nagai, Fig. 6.
----	---	--



Nagai, Fig. 7-8.

Nagai discloses that the stop element prevents over rotation. Nagai, 7:1-13 (“[O]ptimum-damping-force angular range are defined by the stopper 142 for stopping the angular displacement of the eccentric cam 131 in a direction L as shown in FIG. 1(b) and a stopper pin 148, as described later on, for stopping the angular displacement of the eccentric cam 131 in a direction R as shown in FIG. 1(b). The eccentric cam 131 is normally placed within this optimum-damping-force angular range to control the damper assembly 101 to produce optimum damping forces. **Thereupon, if the eccentric cam 131 is placed in the minimum-damping-force angular position by engagement between the stopper 142 and the projection 135, it controls the damper assembly 101 to produce minimum damping force, but yet optimum damping force.**”).

While Nagai does not explicitly disclose a lever, Yi does. Yi, 5:50-55 (“FIGS. 11 and 12 illustrate a second preferred embodiment of a shock absorber of this invention. The shock absorber is similar to

the previous embodiment of FIG. 1, except that **the eccentric shaft 2 of the down-flow adjusting unit 3 is operated via a handle 201**”); Yi, Fig. 12 (depicted below with a lever [handle 201]).

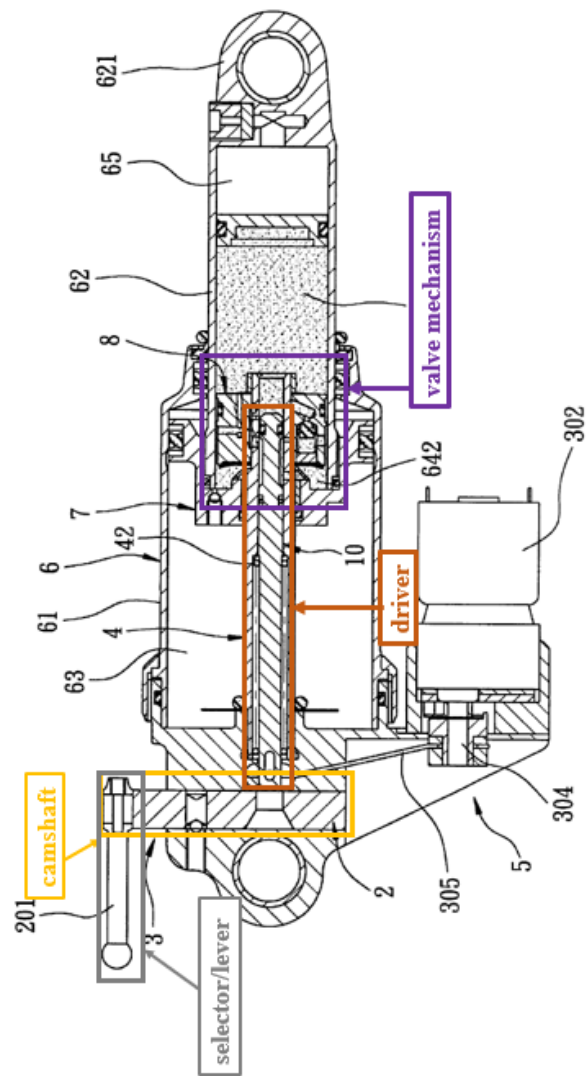


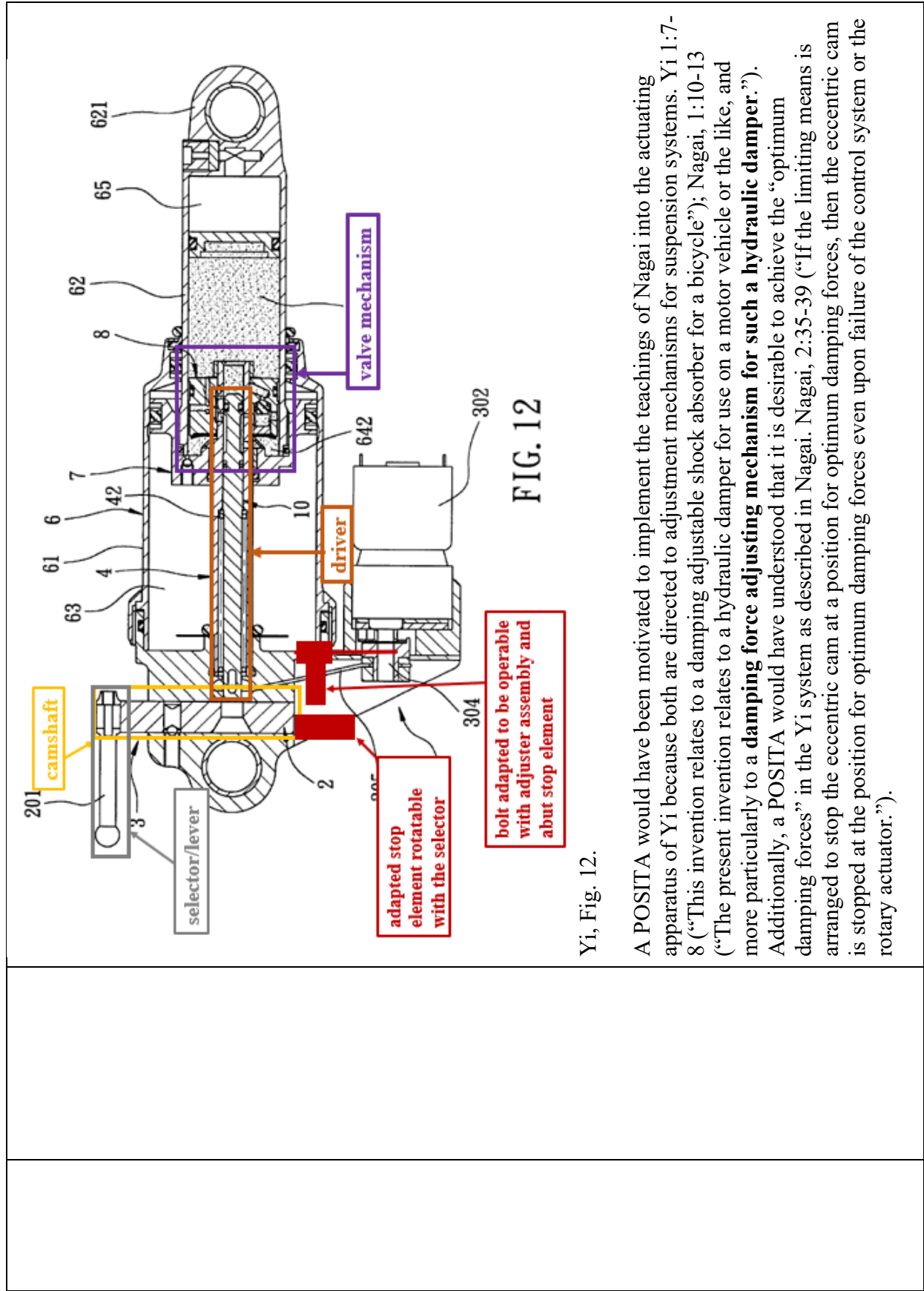
FIG. 12

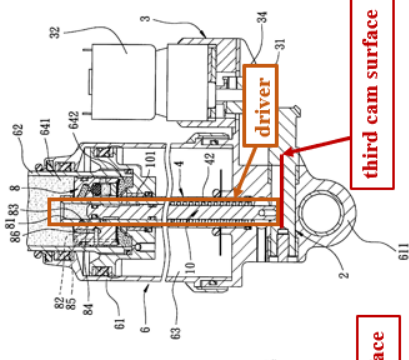
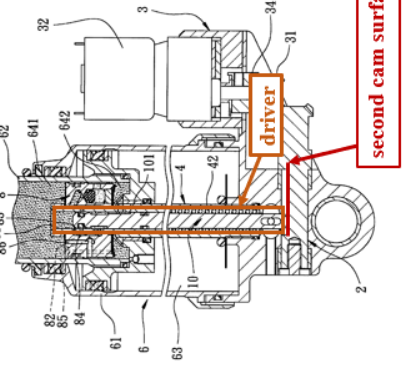
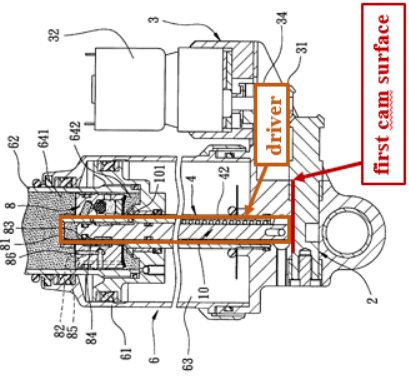
Yi, Fig. 12.

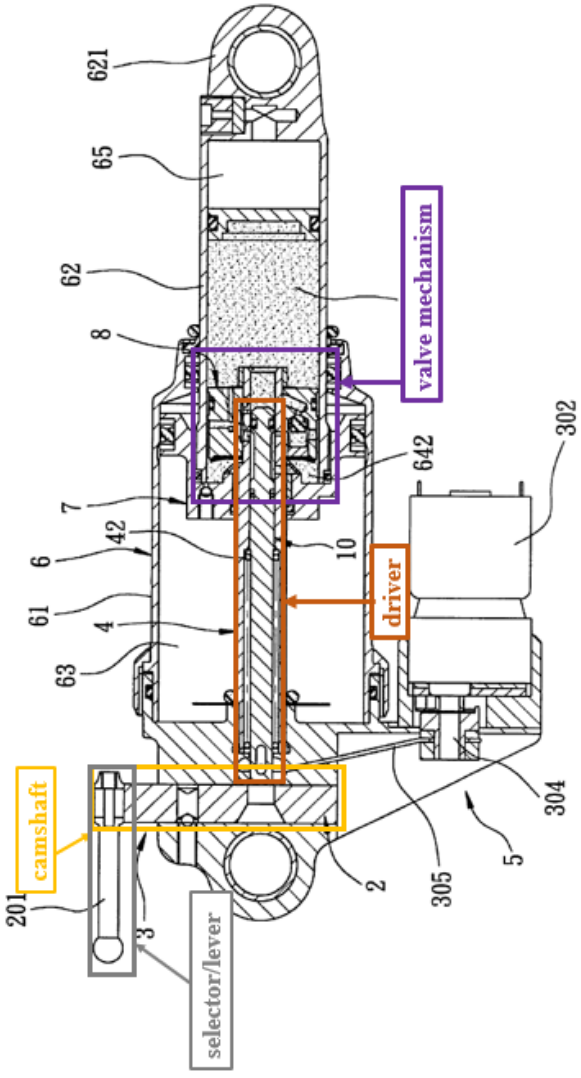
It would have been obvious to a POSITA to apply a stop element as taught by Nagai with the selector of Yi to prevent over rotation. Like Nagai’s rotary actuator, Yi’s lever is operably coupled to the camshaft, therefore the lever and camshaft rotate as a unit and stopping rotation of the camshaft would stop rotation of the lever. Thus, the stop element would prevent over rotation of the lever.

Nagai discloses that the angular displacement of the stop element can be fixed by a bolt. Nagai, 7:61-64. (“The stopper bolt 141 is fixed by the lock nut 143 after the stopper 142 is set to an angular position in which it engages the projection 135 of the eccentric cam 131 and which is defined within a frequently used angular range.”).

	Yi discloses driving unit 302 for the angular displacement of the driver (adjusting rod 10). Yi, 5:50-56 (“FIGS. 11 and 12 illustrate a second preferred embodiment of a shock absorber of this invention. The shock absorber is similar to the previous embodiment of FIG. 1, except that the eccentric shaft 2 of the down-flow adjusting unit 3 is operated via a handle 201 and that the up-flow adjusting unit 5 includes a link 305 that is associated with the damping adjusting rod 10 and that is driven by a driving unit 302). <i>See also</i> claim 1b (discussing adapting driving unit 302 to function as a component of the adjuster assembly). A POSITA would have understood that a bolt displaces axially in response to angular rotation as a function of its threading. The bolt for setting the angular position of stop element from Nagai could be adapted to function with the driving unit 302 of Yi as a matter of design choice. This would create a system where the driving unit 302 can angularly displace the bolt, and therefore causes axial movement of the bolt, adjusting the location where the stop element contacts the bolt. The bolt would thus be operably connected to and a component of the driving unit 302 and therefore a component of adjuster assembly, thus creating a stop element rotatable with the selector and configured to abut against the adjuster assembly to prevent over rotation of the lever. <i>See</i> Yi, Fig. 12 (depicted below and annotated to demonstrate one possible way in which the bolt of Nagai could be adapted to function with the adjuster assembly).
--	--



8	The actuator apparatus of claim 7 wherein the cam surfaces are disposed substantially parallel to the camshaft axis.	Yi discloses the cam surfaces are disposed substantially parallel to the camshaft axis. Yi 5:38-43 (“The down-flow adjusting unit 3 includes an eccentric shaft 2 which extends into the transverse channel 15 and which is connected to the connecting end 16 of the damping adjusting rod 10. The eccentric shaft 2 is turnable so as to move the damping adjusting rod 10 in the axial direction to the first, second, and third axial positions.”); Yi, Figs. 5-7 (depicted below showing three cam surfaces substantially parallel to the cam axis).  FIG. 5 FIG. 6 FIG. 7
10	The actuator apparatus of claim 2 wherein the selector comprises:	See claims 1 and 2.

10a	a lever operable between the positions;	Yi also discloses a lever operable between the positions. Yi, 5:50-55 (“FIGS. 11 and 12 illustrate a second preferred embodiment of a shock absorber of this invention. The shock absorber is similar to the previous embodiment of FIG. 1, except that the eccentric shaft 2 of the down-flow adjusting unit 3 is operated via a handle 201”); Yi, Fig. 12 (depicted below with a lever [handle 201]).  Yi, Fig. 12.
-----	---	--

to the first, second, and third axial positions.”); Yi, Figs. 5-7 (depicted below showing three cam surfaces engaged with the driver and substantially parallel to the camshaft axis of rotation).

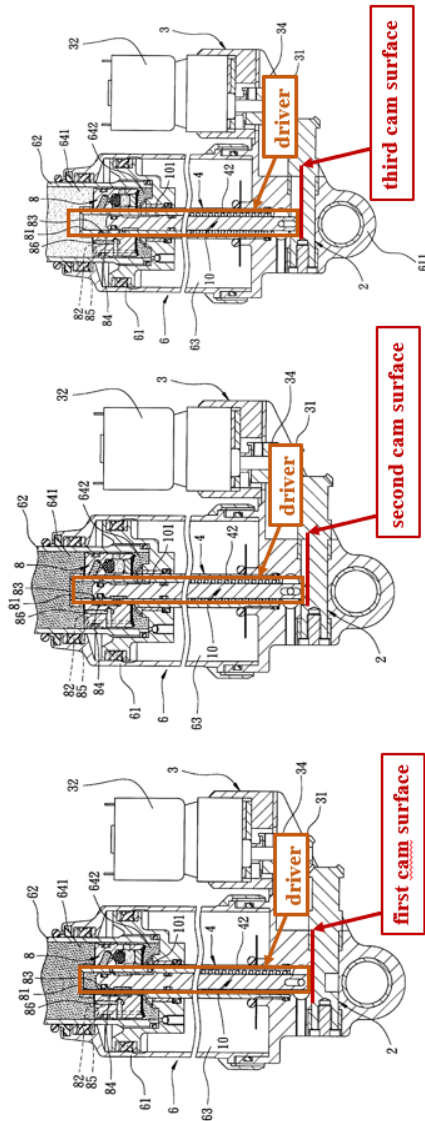


FIG. 7

FIG. 6

FIG. 5

Yi, Figs. 5-7.

11	The actuator apparatus of claim 10 wherein the adjuster assembly is operatively connected to the driver to position the driver relative to camshaft of the selector.	In JP2516279Y2, the adjuster assembly is operatively connected to the driver to position the driver. JP2516279Y2 at 1 (“The present invention relates to a damping force adjusting mechanism for adjusting the damping force of a hydraulic shock absorber.”); <i>Id.</i> at 1-2 (“A slider is provided, and two inclined surfaces with different angles are formed in the same direction on the slider. One of the inclined surfaces abuts the rear end of one adjusting rod, and the other inclined surface has the other. The rear ends of the adjusting rods were brought into contact with each other, and the displacement amounts of the two adjusting rods were made different by the rotation of the motor.”); <i>Id.</i> at 2 (By moving the slider, the compression-side damping force and the extension-side damping force can be made simultaneously, and the adjustment width of the extension-side damping force can be made smaller than the adjustment width of the compression-side damping force.). <i>Id.</i>, Fig. 1; Fig. 4. Figures 1 and 4 depict an inclined surface attached to a feed shaft 50 that pushes surface 44 forward and backwards drive adjusting rod up and down to actuate valves in the valve mechanism.
----	--	---

		The figure consists of two technical drawings. The main drawing on the left is a cross-sectional view of a mechanical assembly, labeled with various numbers (1, 2, 3, 4, 5, 6, 7, 10, 13, 14, 16, 31, 32, 33, 34, 36, 37, 38, 39, 42, 43, 44, 45, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 63, 64). It shows a complex internal mechanism with a central shaft and various components. A green box highlights a section of the assembly, and a red box highlights another section. Labels 'adjuster assembly', 'driver', and 'valve mechanism' are placed near their respective components. The drawing is labeled '【第1図】' (Figure 1) in the top right corner. The smaller drawing on the right is a detailed view of the adjuster assembly, labeled with numbers (42, 43, 44, 45, 49, 50, 51, 52, 53, 54, 55). It shows a close-up of the internal components of the adjuster assembly. A green box highlights a section of the assembly. The drawing is labeled '【第4図】' (Figure 4) in the top right corner. JP2516279Y2, Figs. 1 and 4. The Yi and JP279 combination discussed in 1b discloses that the adjuster assembly is operatively connected to the driver to position the driver relative to camshaft of the selector. See <i>supra</i> 1b. For example, a POSITA would have understood that the slider mechanism adapted to be driven by driving unit 302 and operated in any one of the three axial positions disclosed in Yi would operate to move the driver along sloped surface 44 of the adjuster assembly without moving the camshaft of
--	--	--

Yi, thus moving the driver relative to the position of the camshaft. See JP2516279Y2, Fig. 1; Fig. 4; Yi, Fig. 5-7.

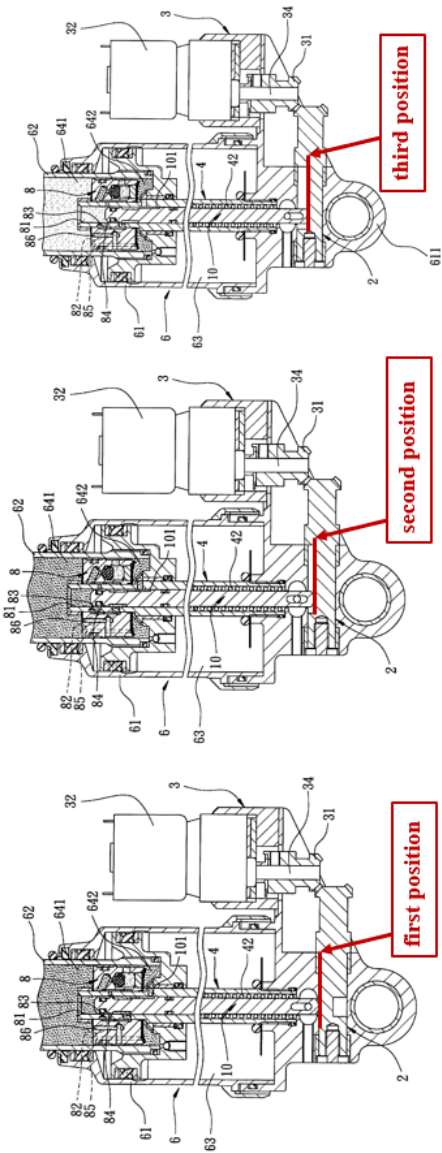
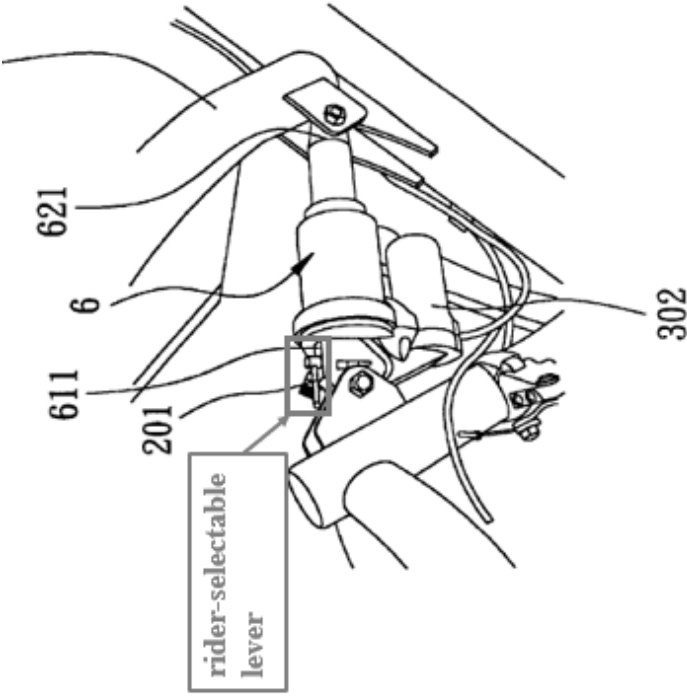


FIG. 5

FIG. 6

FIG. 7

Yi, Fig. 5-7.

12	The actuator apparatus of claim 1 wherein the positions of the valve actuating assembly are rider-selectable positions.	Yi discloses that the positions of the valve actuating assembly are rider-selectable positions. Yi, 5:52-55 (“The shock absorber is similar to the previous embodiment of FIG. 1, except that the eccentric shaft 2 of the down-flow adjusting unit 3 is operated via a handle 201.”); Yi, Fig. 11 (cropped below showing rider-selectable positions with handle 201).  Yi, Fig. 11.
----	--	--