

The Patent Trial and Appeal Board

Imperative Care, Inc.,
Petitioner,

v.

Inari Medical Inc.,
Patent Owner.

Case Nos. IPR2025-00728 (US11,844,921), 2025-00989 (US11,865,291)

Patent Owner Demonstratives

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

US11,844,921 ('921 Patent): Grounds and Challenged claims

Claims 8, 11-12, 19, 25-26 not challenged in Petition.

Ground 5: Hartley + Eller - claims 4, 7, 11-14, 19, 20, 24 not challenged.
Claim 10 listed but not substantively argued in Petition.

Grounds 1 and 2: Schaffer (102, 103)

Ground 3: Schaffer + Hartley

Ground 4: Schaffer + Eller

US11,865,291 ('291 Patent): Grounds and Challenged claims

Claims 9-11 and 20 not challenged in Petition.

Grounds 1 and 2: Schaffer (102, 103)

Ground 3: Schaffer + Hartley

Ground 4: Schaffer + Eller

Ground 5: Garrison + Schaffer

Ground 6: Garrison + Schaffer + Hartley

Ground 7: Garrison + Schaffer + Eller

'921 Patent, Claim 10

10. The valve of claim 1 wherein the actuator is a first actuator, wherein the filament is a first filament, wherein the biasing member is a first biasing member, and wherein the active tensioning mechanism further comprises:

a second actuator coupled to the elongate member via a second filament extending at least partially around the elongate member, wherein the second actuator is moveable between (a) a first position wherein the lumen is constricted and sealed and (b) a second position wherein the lumen is at least partially open; and
a second biasing member configured to bias the second actuator to the first position.

EX1001 ('005 Patent).

'921 Patent, Claims 11-14

11. The valve of claim **10** wherein the first filament has a first end portion coupled to the first actuator and a second end portion coupled to the first actuator, and wherein the second filament has a first end portion coupled to the second actuator and a second end portion coupled to the second actuator.

12. The valve of claim **11** wherein the first filament and the second filament at least partially overlap to define a constricting region about the elongate member.

13. The valve of claim **12** wherein, when the second actuator is moved to the second position and/or the second actuator is moved to the second position, a size of the constricting region increases.

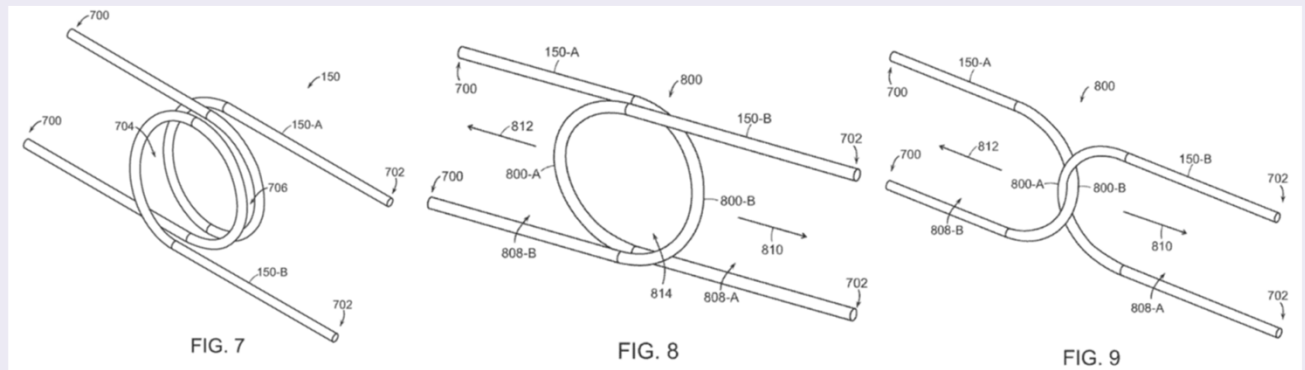
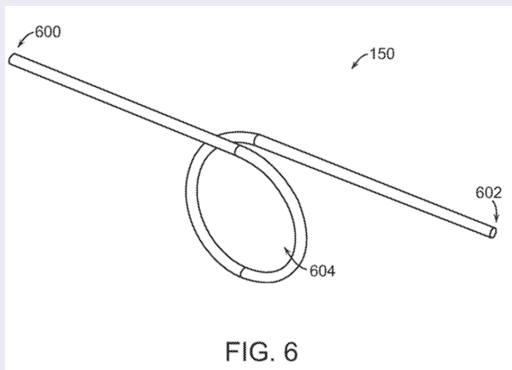
14. The valve of claim **10** wherein the first filament extends in a loop around the elongate member, and wherein the second filament extends through the loop of the first filament around the elongate member.

'921 Patent, Filament

With reference now to FIGS. 6 through 9, different embodiments and/or configurations of the filament 150 are shown. The filament 150 can comprise a single filament 150 having a first end 600 and a second end 602 as shown in FIG. 6. The filament 150, and specifically which first and second

stainless steel, nitinol, silicone, or the like. In some embodiments, the filament can comprise a single strand such as, for example, a monofilament, and in some embodiments, the filament can comprise a plurality of strands that can be, for example, twisted, woven, grouped, and/or fused to form the filament. In some embodiments, the filament 150 can comprise one or several threads, lines, cords, rope, ribbon, flat wire, sheet, or tape.

In some embodiments, the filament 150 can comprise multiple filaments, and specifically, as shown in FIGS. 7 through 9, the filament 150 can comprise a first filament 150-A and a second filament 150-B. In embodiments in



EX1001 ('921Patent) 9:10-17, 12:37-41; 12:54-57.

PO Sur-Reply, 11-12.

Petitioner's purported motivation

are “rigid.” (Ex. 1003, ¶81; Ex. 1014, ¶34.) Gaps will form if the members are rigid, but they will also form if the members are flexible because each U-shaped actuating member is secured to the actuator buttons at two fixed, spaced-apart points:

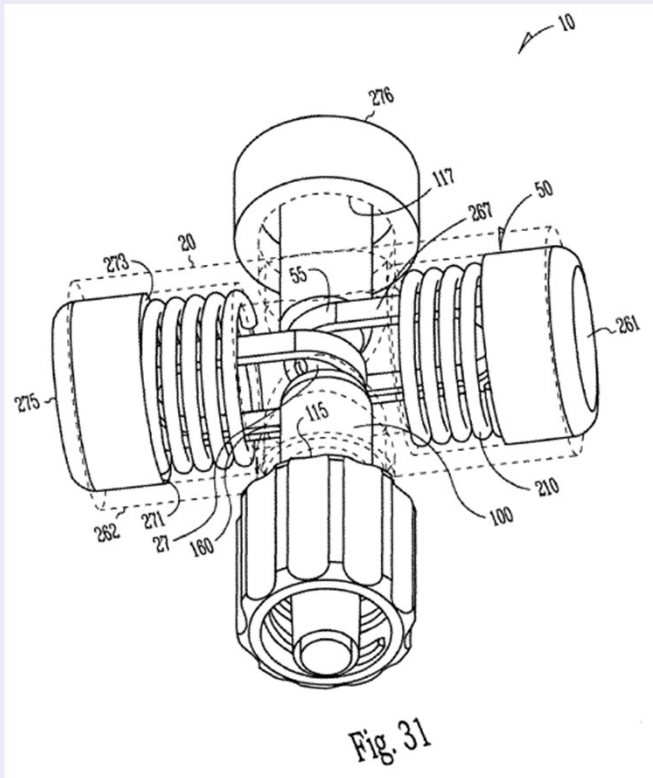
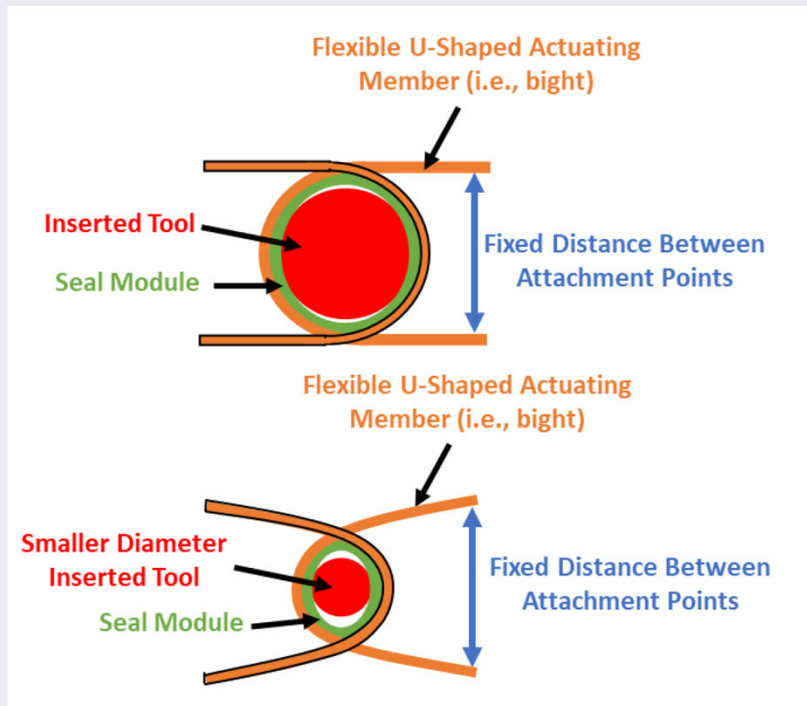


Fig. 31
EX1008 (Schaffer).



IPR2024-01157, Paper 18, 23-24.

PO Sur-Reply, 17.

'921 Patent, Claim 10

10. The valve of claim 1 wherein the actuator is a first actuator, wherein the filament is a first filament, wherein the biasing member is a first biasing member, and wherein the active tensioning mechanism further comprises:

a second actuator coupled to the elongate member via a second filament extending at least partially around the elongate member, wherein the second actuator is moveable between (a) a first position wherein the lumen is constricted and sealed and (b) a second position wherein the lumen is at least partially open; and
a second biasing member configured to bias the second actuator to the first position.

EX1001 ('921 Patent).

'291 Patent, Claims 1, 18

1. A hemostasis valve, comprising:

a support;

an actuator having at least a first member movably coupled to the support;

a collapsible tubular sidewall defining a lumen carried by the support;

a filament formed in a loop around the tubular sidewall, the filament having at least a first end portion extending away from the loop to the first member; and

a spring configured to move the first member in a direction that pulls the first end portion away from the tubular sidewall, reducing a diameter of the lumen in response to reducing a diameter of the loop.

18. An aspiration catheter system, comprising:
an aspiration catheter defining a lumen and having a proximal end portion; and
a hemostasis valve comprising—

a support;

an actuator having at least a first member movably coupled to the support;

a collapsible tubular sidewall defining a lumen carried by the support, wherein the lumen of the tubular sidewall is selectively fluidly couplable to the lumen of the aspiration catheter;

a filament formed in a loop around the tubular sidewall, the filament having at least a first end portion extending away from the loop to the first member; and

a spring configured to move the first member in a direction that pulls the first end portion away from the tubular sidewall, reducing a diameter of the lumen in response to reducing a diameter of the loop to fluidly decouple the lumen of the tubular sidewall from the lumen of the aspiration catheter.

'291 Patent, Claim 1

1. A hemostasis valve, comprising:

a support;

an actuator having at least a first member movably coupled to the support;

a collapsible tubular sidewall defining a lumen carried by the support;

a filament formed in a loop around the tubular sidewall, the filament having at least a first end portion extending away from the loop to the first member; and

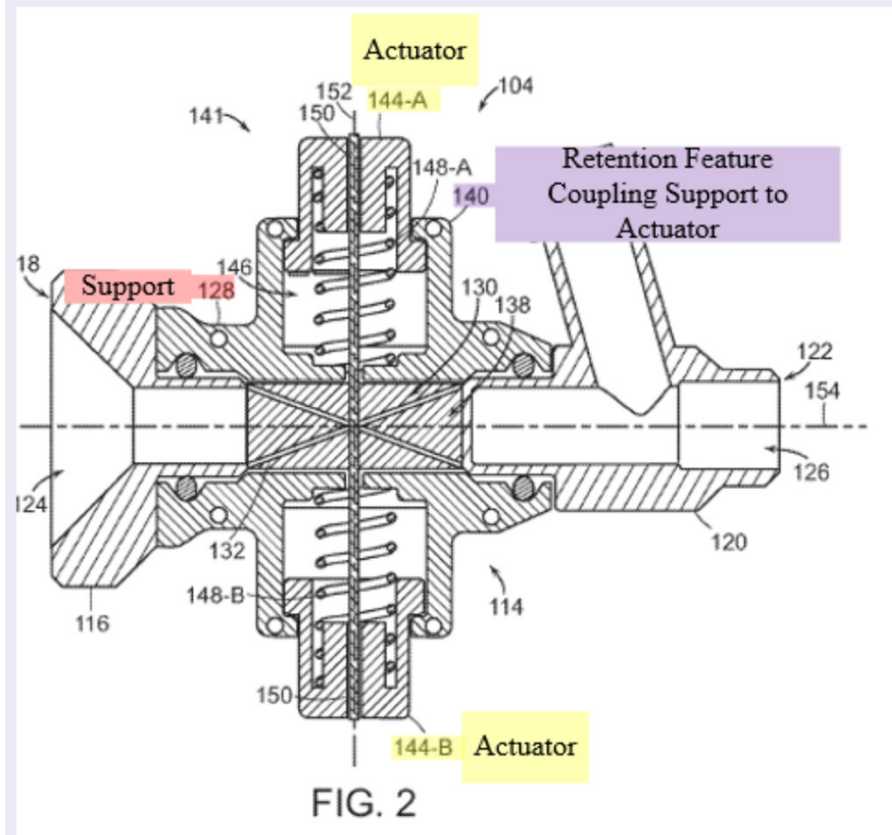
a spring configured to move the first member in a direction that pulls the first end portion away from the tubular sidewall, reducing a diameter of the lumen in response to reducing a diameter of the loop.

2. The hemostasis valve of claim 1, further comprising a second member movably coupled to the support.

9. The hemostasis valve of claim 1 wherein the spring is positioned between the first member and the support.

'291 Patent, Specification

The housing 128 can further include one or several retention features 140. The one or several retention features 140 of the housing can engage with and retain all or portions of the constricting mechanism 141 of the valve 104. In some embodiments, the one or several retention features 140 of the housing 128 can retain the actuator 142 and/or can couple the actuator 142 to the housing 128. The actuator 142 can comprise any desired type of actuator including, for example, a manual actuator and/or an automated actuator such as, for example, an electromechanical actuator including a solenoid-based actuator. In some embodiments, the actuator can comprise one or several buttons 144, and specifically, as depicted in FIG. 1, the actuator 142 can comprise a first button 144-A and a second button 144-B. Alternatively, and as depicted in FIG. 5, the actuator 142 can comprise a single button 144. In such an embodiment, the filament 150 can be coupled to the single button 144 and to a portion of the housing 128 such as, for example, to grip portion 500 of the housing 128 such that the movement of the single button 144 causes the sealing and/or opening of the elongate member 132 and of the valve 104.



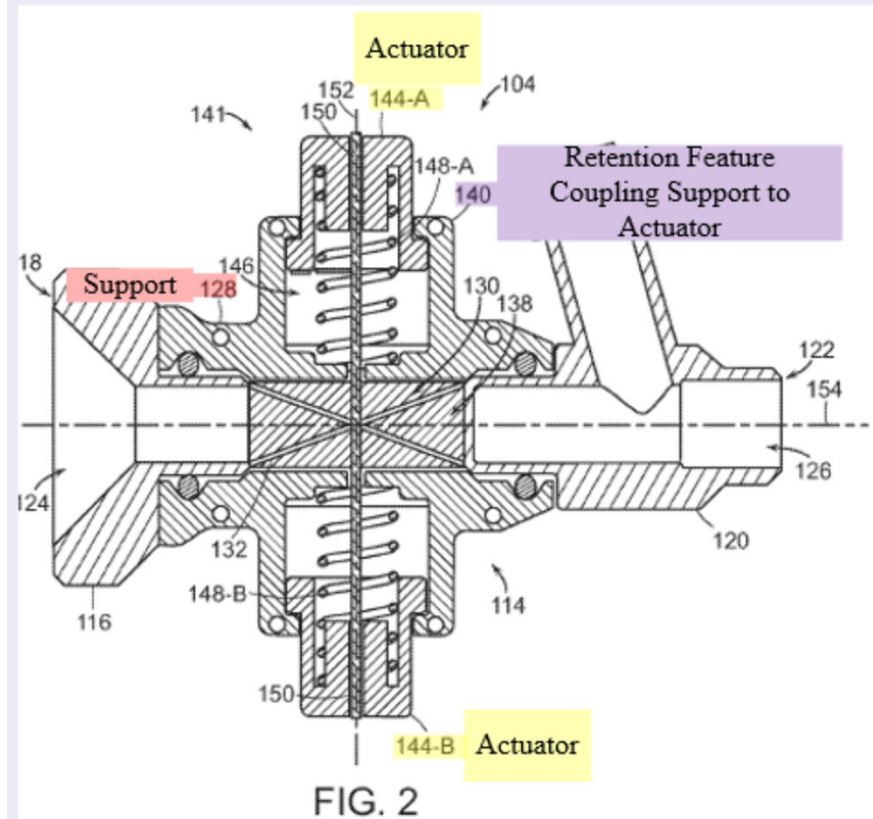
EX1001 ('291Patent), 8:17-37, Fig. 2.

POR at 36-38.

'291 Patent, Specification

The housing 128 can further include one or several retention features 140. The one or several retention features 140 of the housing can engage with and retain all or portions of the constricting mechanism 141 of the valve 104. In some embodiments, the one or several retention features 140 of the housing 128 can retain the actuator 142 and/or can couple the actuator 142 to the housing 128. The actuator 142 can comprise any desired type of actuator including, for example, a manual actuator and/or an automated actuator such as, for example, an electromechanical actuator including a solenoid-based actuator. In some embodiments, the actuator can comprise one or several buttons 144, and specifically, as depicted in FIG. 1, the actuator 142 can comprise a first button 144-A and a second button 144-B. Alternatively, and as depicted in FIG. 5, the actuator 142 can comprise a single button 144. In such an embodiment, the filament 150 can be coupled to the single button 144 and to a portion of the housing 128 such as, for example, to grip portion 500 of the housing 128 such that the movement of the single button 144 causes the sealing and/or opening of the elongate member 132 and of the valve 104.

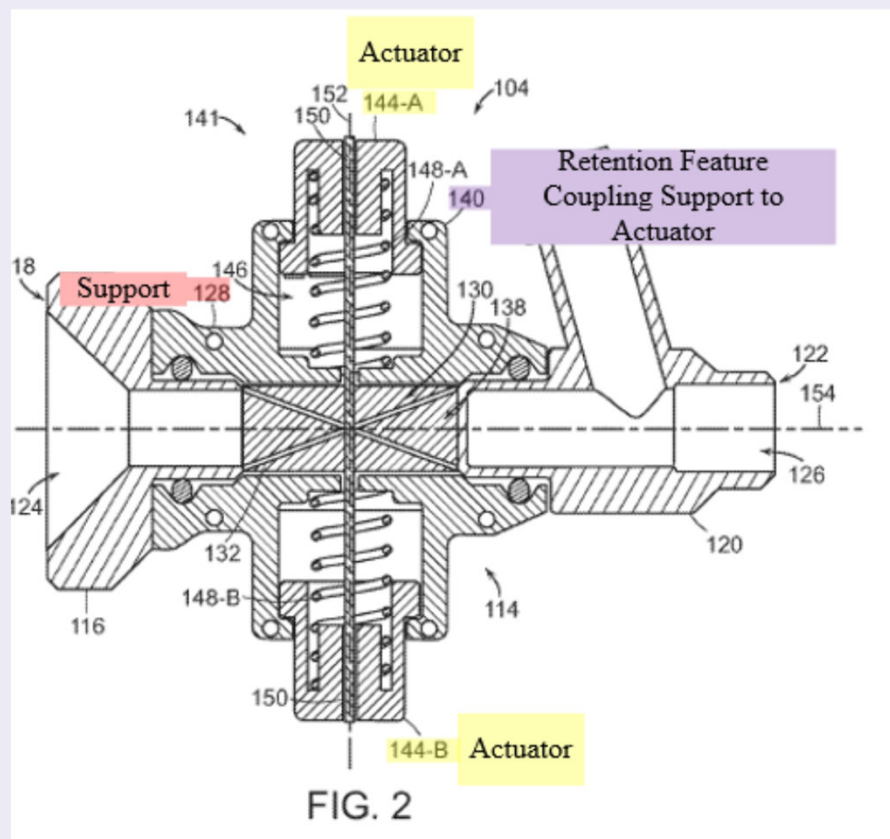
striction with at least one filament 150. The constricting mechanism 141 can comprise: an actuator 142 which can be a manual actuator such as one or several buttons 144; and the at least one filament 150 that can extend at least partially around the elongate member 132. In some embodiments, the



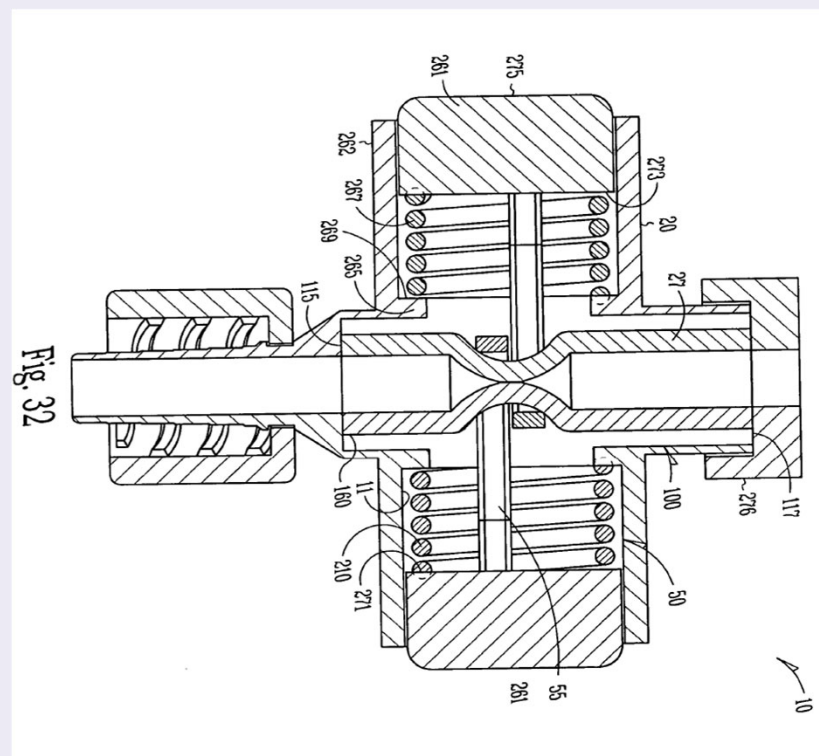
EX1001 ('291Patent), 8:8-12; 8:17-37, Fig. 2.

POR at 36-38.

Schaffer does not disclose “member movable coupled to the support”



EX1001 ('291Patent).



EX1008 (Schaffer FH), 82.

Petitioner's expert's assertion regarding "member movable coupled to the support"

89. As shown in the figure above and described in Schaffer, the "actuators 50 are configured cylindrically to slide along the cylindrical interior wall 11 of the housing 20 from a first position to a second position." *Id.* at [0076], Figs. 32 and 34; *see also id.* at [0083] (the actuator button 261 is inserted into the housing during assembly). Therefore, the actuator buttons are movably coupled to the Schaffer's housing (the "support").

EX1003.

