

NOTE: This disposition is nonprecedential.

## United States Court of Appeals for the Federal Circuit

2008-1416

APPLIED MEDICAL RESOURCES CORPORATION,

Plaintiff-Appellant,

v.

UNITED STATES SURGICAL CORPORATION  
and TYCO HEALTHCARE GROUP, LP,

Defendants-Appellees.

Joseph R. Re, Knobbe, Martens, Olson & Bear, LLP, of Irvine, California, argued for plaintiff-appellant. With him on the brief were Joseph F. Jennings and Lauren K. Katzenellenbogen, of Irvine, California, and Karen Vogel Weil and Brian C. Horne, of Los Angeles, California.

Fred H. Bartlit, Jr., Bartlit Beck Herman Palenchar & Scott LLP, of Denver, Colorado, argued for defendants-appellees. With him on the brief were Glen E. Summers and Sean C. Grimsley. Of counsel on the brief was Donald L. Morrow, Paul Hastings Janofsky & Walker LLP, of Costa Mesa, California.

Appealed from: United States District Court for the Central District of California

Judge Cormac J. Carney

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Appeal from the United States District Court for the Central District of California in case no. 03-CV-01267, Judge Cormac J. Carney.

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DECIDED: February 24, 2009

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Before MAYER, GAJARSA, and PROST, Circuit Judges.

PROST, Circuit Judge.

Applied Medical Resources Corporation (“Applied”) appeals the April 29, 2008 decision of the United States District Court for the Central District of California denying its motion for a new trial. For the reasons set forth below, we affirm.

## I. BACKGROUND

### A. The Asserted Patent

In 2003, Applied brought suit against United States Surgical Corporation and Tyco Healthcare Group (collectively, “U.S. Surgical”) alleging infringement of claim 18 of United States Patent No. 5,385,553 (“the ’553 patent”).

The invention disclosed in the '553 patent was described in a prior appeal in this case:

The '553 patent is entitled "Trocar With Floating Septum Seal." As the patent explains, a trocar provides a channel through the abdominal cavity through which instruments can be inserted during laparoscopic surgery. During these procedures, the surgeon inflates the abdomen with an insufflation gas in order to maintain the abdomen in a distended state. To prevent the gas from leaking out when an instrument is inserted, trocars are equipped with a valve which forms a seal around the inserted instrument. The valves include an orifice through which the instrument is inserted that allows for a variable diameter seal to be made with the instrument. Two problems can arise with the valves which result in undesirable leaking of the insufflation gas. First, during insertion, the sharp point of the instrument may cause cupping or tearing of the seal. Second, after insertion, if the instrument is operated off-axis, it may pull the orifice into a "cat-eye" shape, such that the degraded seal around the instrument permits gas to escape. '553 patent, col. 1, ll. 15-52.

The '553 patent discloses a floating seal to provide for the orifice to move to an off-axis position without deforming. Id. at col. 2, ll. 6-13. The inner portions of the floating seal, which define the orifice, move substantially intact so that the orifice can maintain a circular configuration around the instrument. Id.

Applied Med. Res. Corp. v. U.S. Surgical Corp., 448 F.3d 1324, 1327 (Fed. Cir. 2006)

("Applied II").

Claim 18 of the '553 patent, the only claim at issue in this appeal, recites:

[a] An access device adapted to form an access channel across a body wall, and configured to receive a surgical instrument in the access channel, the access device comprising:

[b] a cannula having an axis extending between a proximal end and a distal end of the device;

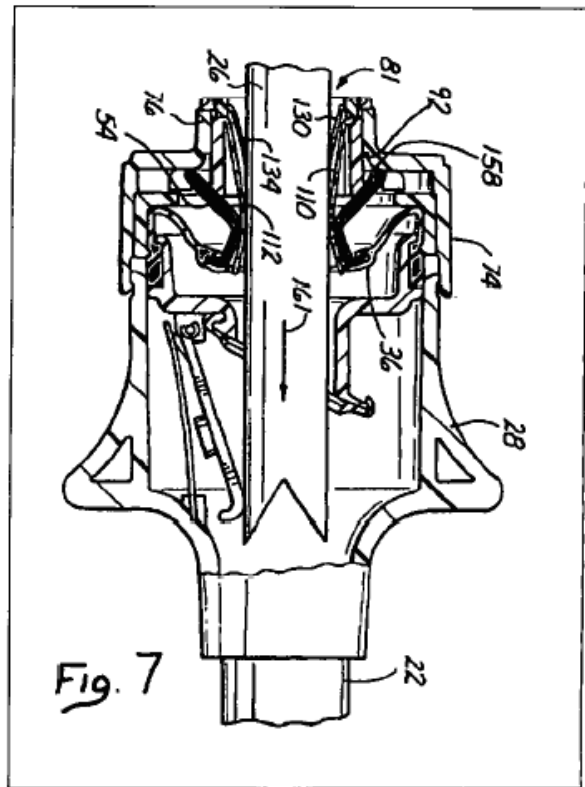
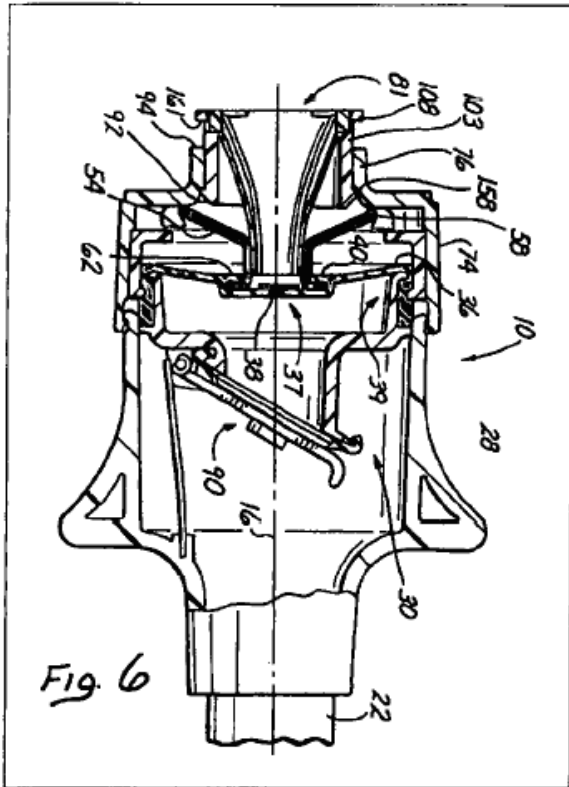
[c] a seal housing disposed at the proximal end of the cannula and forming with the cannula the access channel of the device;

[d] a flexible valve disposed relative to the housing and across the access channel, the valve having elastomeric properties for forming a seal with the instrument when the instrument is disposed in the access channel;

[e] portions of the valve defining the orifice which is sized and configured to receive the instrument and to form the seal with an outer surface of the instrument; and

[f] means disposed circumferentially outwardly of the valve portions for supporting the valve portions within the seal housing, the supporting means being movable relative to the housing to permit the valve portions to float relative to the axis of the cannula.

The parties agree that element [f] is a means-plus-function limitation that is governed by 35 U.S.C. § 112, ¶ 6. The parties also agree that, with respect to this appeal, the only relevant structure corresponding to element [f] is disclosed in Figures 6 and 7 of the '553 patent.



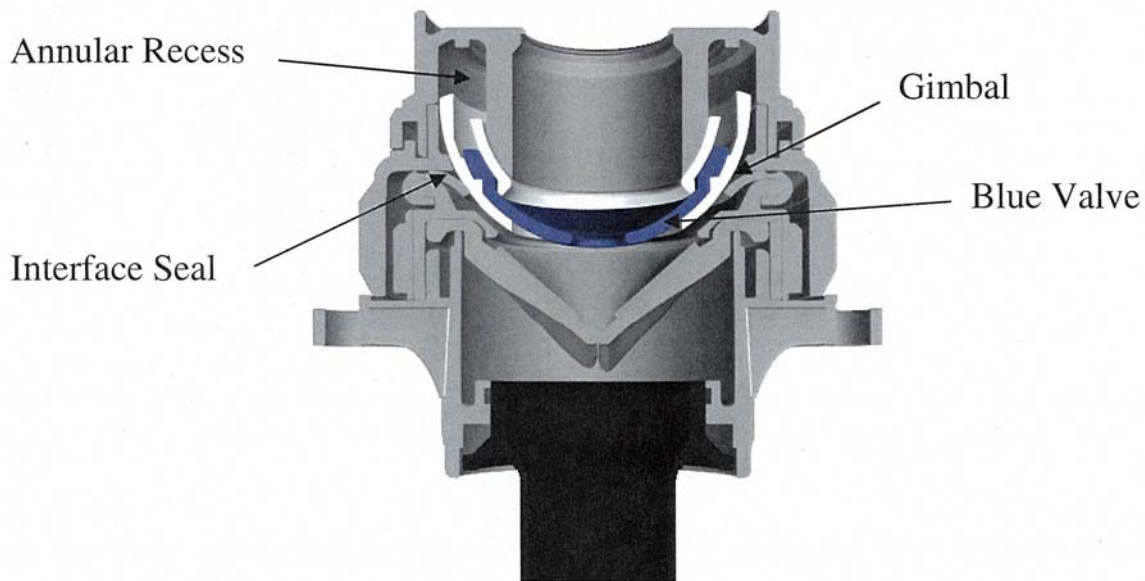
These figures disclose an embodiment of the claimed trocar both with (Figure 7) and without (Figure 6) an instrument 26 inserted through orifice 38. The parties refer to this structure as the “ring-levers-teeth” embodiment. In this embodiment, the septum

valve 36 is connected to the levers 54 via the tooth members 62. '553 patent, col.10 ll.41-63. At the end opposite the tooth members 62, the levers 54 are connected to a floating ring (pictured but not numbered) that has a diameter less than that of the annular recess in which it sits (pictured but not numbered). Id. at col.10 ll.36-40. When an off-axis force is applied to the instrument, the ring can move freely within the annular recess, carrying with it the levers 54 and tooth members 62. Id. at col.10 ll.41-46. In this embodiment, the inner portions 37 of the septum valve 36, which are supported by the tooth members 62, are isolated from the off-axis forces and will not deform. Id. at col.10 ll.49-52. Because the inner portions 37 of the valve do not deform, the seal with the instrument 26 will be maintained and insufflation gas will not be able to escape. The outer portions 39 of the septum valve 36, however, will stretch and compress to accommodate the movement of the ring, levers, and teeth. Id. at col.10 ll.46-49.

#### B. The Accused Product

Applied alleges that U.S. Surgical's trocar, the VersaPort Plus, infringes claim 18 of the '553 patent. As shown below, the VersaPort Plus comprises a hemispherical plastic structure known as the "gimbal" and a valve (referred to as the "blue valve"). The blue valve is sandwiched inside part of the gimbal. When off-axis forces are applied to an instrument that is inserted through the trocar, the forces are transmitted through the valve to the gimbal. In response to those forces, the gimbal moves into the annular recess. The blue valve is made of a stiff material that will not deform when the off-axis forces from the instrument are applied to it. The VersaPort Plus thus solves the same problem as the ring-levers-teeth embodiment of the '553 patent—it prevents off-

axis forces from deforming the seal between the valve and the instrument and allowing insufflation gas to escape.



**VersaPort Plus**

### C. Procedural History

Applied first sued U.S. Surgical for infringement of the '553 patent in 1996. While that suit involved a different accused product and has long since been resolved, the district court in that case construed element [f], the means-plus-function limitation in claim 18, and the parties agree that they are bound by that construction. In that case, the district court identified the following structure in the rings-levers-teeth embodiment shown in Figures 6 and 7 as corresponding to the “supporting” and “permitting-to-float” functions of element [f]: “a ring that is capable of moving side to side because it has a diameter less than that of the recess that holds it, and that is connected to levers with teeth that are in turn attached to the septum valve.” Applied II, 448 F.3d at 1330.

Importantly, this construction does not specifically include the outer portions 39 of the septum valve 36.

The infringement suit that gave rise to this appeal began in 2003 when U.S. Surgical introduced the VersaPort Plus trocar. In March 2005, the district court granted U.S. Surgical's motion for summary judgment that the VersaPort Plus did not infringe claim 18. Because Applied conceded that the VersaPort Plus did not contain the exact ring-levers-teeth structure disclosed in the '553 patent, the only disputed issue was whether the VersaPort Plus contained an equivalent structure that satisfied element [f]. Applied Med. Res. Corp. v. U.S. Surgical Corp., No. SACV 03-1267CJC, 2005 WL 4122737, at \*7 (C.D. Cal. Mar. 7, 2005) ("Applied I"). The district court concluded that "U.S. Surgical's gimbal and Applied's ring-levers-teeth structure are two very different structures that perform their 'supporting' and 'float' functions for a trocar seal in very different ways." Id. at \*7. Specifically, the district court focused on the ring-levers-teeth embodiment's use of distinct inner and outer valve portions, as described by the specification and Applied's expert, Dr. Sheehan. Id. In the district court's view, U.S. Surgical's use of a rotating gimbal with a non-deforming valve that did not have distinct inner and outer portions was fundamentally different than the use of a valve separated into isolated inner portions and deformable outer portions. Id. at \*8. Accordingly, the district court held that no reasonable jury could find that the gimbal in the VersaPort Plus was an equivalent of the structure in the ring-levers-teeth embodiment. Id.

On appeal to this court, the majority of the panel vacated the grant of summary judgment and remanded for further proceedings.<sup>1</sup> Applied II, 448 F.3d at 1337. The

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<sup>1</sup> Judge Dyk dissented.

majority of the panel found error in the district court's consideration of the deforming outer valve portions of the ring-levers-teeth embodiment in its equivalency analysis. However, as will be discussed in greater detail below, the parties vigorously disagree over whether the majority simply held that there was a genuine issue of material fact that precluded summary judgment, or whether the holding was that the outer portions of the ring-levers-teeth embodiment are entirely irrelevant to the equivalency analysis.

On remand, the case continued to a trial before a jury. Before trial, Applied filed a motion in limine requesting that the court preclude U.S. Surgical from presenting to the jury non-infringement theories that relied on the outer portions of the ring-levers-teeth embodiment. The district court denied the motion. At trial, U.S Surgical argued to the jury that the deformation of the outer portions of the ring-levers-teeth embodiment was the "9,000-pound gorilla that decides the case." J.A. 2785. The jury returned a verdict that U.S Surgical neither infringed claim 18 of the '553 patent nor proved that the claim was obvious. After trial, Applied moved for judgment as a matter of law of infringement, or, in the alternative, a new trial. The district court denied these motions, holding that the deforming outer portions of the ring-levers-teeth embodiment are relevant to the "way" prong of the § 112, ¶ 6 equivalency analysis. Applied Med. Res. Corp. v. U.S. Surgical Corp., 549 F. Supp. 2d 1208, 1209 (C.D. Cal. 2008) ("Applied III"). Applied timely appealed the district court's denial of a new trial. We have jurisdiction under 28 U.S.C. § 1295(a)(1).

## II. DISCUSSION

Under applicable Ninth Circuit law, this court reviews the district court's order denying a motion for a new trial for abuse of discretion. Molski v. M.J. Cable, Inc., 481



F.3d 724, 728 (9th Cir. 2007). An erroneous evidentiary ruling is grounds for a new trial “only if the error more likely than not affected the verdict.” In re First Alliance Mortgage Co., 471 F.3d 977, 999 (9th Cir. 2006). Whether the district court followed the mandate set forth by this court on the first appeal is a question of law that we review de novo. Laitram Corp. v. NEC Corp., 115 F.3d 947, 950 (Fed. Cir. 1997).

Means-plus-function claim limitations “shall be construed to cover the corresponding structure, material, or acts described in the specification and equivalents thereof.” 35 U.S.C. § 112, ¶ 6. During claim construction, the court must identify the claimed function and determine the corresponding structure disclosed in the specification.<sup>2</sup> IMS Tech., Inc. v. Haas Automation, Inc., 206 F.3d 1422, 1430 (Fed. Cir. 2000). In order to prove literal infringement, the patentee must show “that the relevant structure in the accused device perform[s] the identical function recited in the claim and [is] identical or equivalent to the corresponding structure in the specification.” Lockheed Martin Corp. v. Space Sys./Loral, Inc., 324 F.3d 1308, 1320 (Fed. Cir. 2003). If the relevant structure in the accused device is not identical to the corresponding structure in the specification, the test for § 112, ¶ 6 equivalence is whether the two structures “perform the identical function, in substantially the same way, with substantially the same result.” Kemco Sales, Inc. v. Control Papers Co., 208 F.3d 1352, 1364 (Fed. Cir. 2000). Whether the relevant structure in the accused device is an equivalent is a question of fact. IMS Tech., 206 F.3d at 1430. In this case, only the “way” portion of the function-way-result test is at issue. See Applied III, 549 F. Supp. 2d at 1209.

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<sup>2</sup> Adopting Applied’s terminology, we will refer to the corresponding structure identified during claim construction as “identified structure.” Parts the

Applied argues that the district court committed reversible error by allowing U.S. Surgical to repeatedly argue to the jury that the deformation of the outer valve portions was relevant to the “way” in which the ring-levers-teeth embodiment performed the “permitting to float” function. Applied maintains that because the outer valve portions are not part of the structure identified in the court’s construction of element [f], they are legally irrelevant to the “way” in which that structure performs the claimed functions. By allowing U.S. Surgical to argue that the deformation of the outer portions was the “9,000 pound gorilla that decides the case,” Applied contends, the district court violated both the mandate from the prior appeal and this court’s precedent. We disagree.

#### A. The Prior Appeal

Applied argues that this court’s previous decision held that the outer portions of the valve in the ring-levers-teeth embodiment are irrelevant to the “way” in which that embodiment performs the “permitting to float” function. In contrast, U.S. Surgical contends that the opinion did not broadly declare the outer valve portions legally irrelevant to the “way” analysis. Rather, U.S. Surgical argues, the opinion simply held that the district court ignored a genuine issue of material fact by treating element [f] as requiring that the accused device have distinct and deformable outer valve portions.

We agree with U.S. Surgical that the prior panel did not purport to go so far as to declare the outer portions legally irrelevant to the “way” analysis. The opinion made clear that the only issue before it was “whether, under the district court’s adopted claim construction, there exists a genuine issue of material fact that the two [structures]

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invention disclosed in the specification but not identified as corresponding structure during claim construction will be referred to as “unidentified structure.”

perform the claimed functions in substantially the same way.” Applied II, 448 F.3d at 1334.

Moreover, Applied incorrectly characterizes the panel’s statement that “the district court improperly imported unclaimed functions when analyzing the way in which the disclosed embodiment performed the claim function” as a mandate that the outer portions are legally irrelevant to the “way” analysis. Id. at 1335. Our precedent is clear that a court must not import unclaimed functions into means-plus-function limitations. See, e.g., JVW Enters., Inc. v. Interact Accessories, Inc., 424 F.3d 1324, 1331 (Fed. Cir. 2005). In other words, a court cannot require the structure in the accused device to perform functions that are not present in the claim. In Applied II, the majority mentioned two ways in which such an error could occur. First, a court can err during claim construction by “defining a claimed function to require more than is actually claimed.” Applied II, 448 F.3d at 1334. Second, a court can err during the infringement analysis by “improperly determin[ing] the way in which the disclosed structure performs the previously-defined function.” Id. Stated differently, a court cannot require as part of the “way” analysis functions that were not properly identified during claim construction. This does not mean, however, that aspects of the claimed invention beyond those stated in the means-plus-function limitation are necessarily irrelevant to the “way” in which the disclosed structure works. Indeed, such a rule would conflate the “way” and “function” prongs of the function-way-result test because under that rule any articulation of why the “way” in which the accused device operates is different than the “way” in which the

identified structure operates would be, by definition, a description of either an irrelevant extraneous function or an improper additional function.<sup>3</sup>

In the prior appeal, the panel held that the district court committed the above-described second type of error by requiring that the accused device contain mechanically separated non-deforming inner valve portions and deforming outer valve portions. Id. at 1334-37. Because the deformation of the outer valve portions was not a function that could properly be required as part of element [f], the panel concluded that the district court erred by requiring that functionality as part of its “way” analysis. Id. Next, the panel considered whether there was a genuine factual dispute concerning whether the VersaPort Plus’s gimbal performed both the “supporting” and “permitting to float” functions in substantially the same “way” as the ring-levers-teeth structure. Id. at 1335-37. After reviewing the declaration of Applied’s expert, Dr. Sheehan, the majority concluded that summary judgment was inappropriate. Id. Nowhere in its discussion did the majority set forth a legal rule that unidentified structure is legally irrelevant to the “way” analysis.

Properly identified, this court’s mandate in the prior appeal was that deformable outer valve portions cannot be required as part of element [f]. Because the district court properly instructed the jury on the claim construction without indicating that deforming outer valve portions were required by claim 18, our mandate was not violated. See

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<sup>3</sup> We recognize that the line between permissibly finding aspects of the claimed invention relevant to the “way” the identified structure functions and impermissibly requiring those “functions” as part of the means-plus-function limitation may not always be precisely defined. However, such a line is necessary if we are to give independent meaning to both the “function” and “way” prongs of the equivalency test.

Applied III, 549 F. Supp. 2d at 1212. Under the mandate, the district court was free to allow U.S. Surgical to argue that the outer valve portions are relevant to the “way” the ring-levers-teeth embodiment performs the claimed functions.

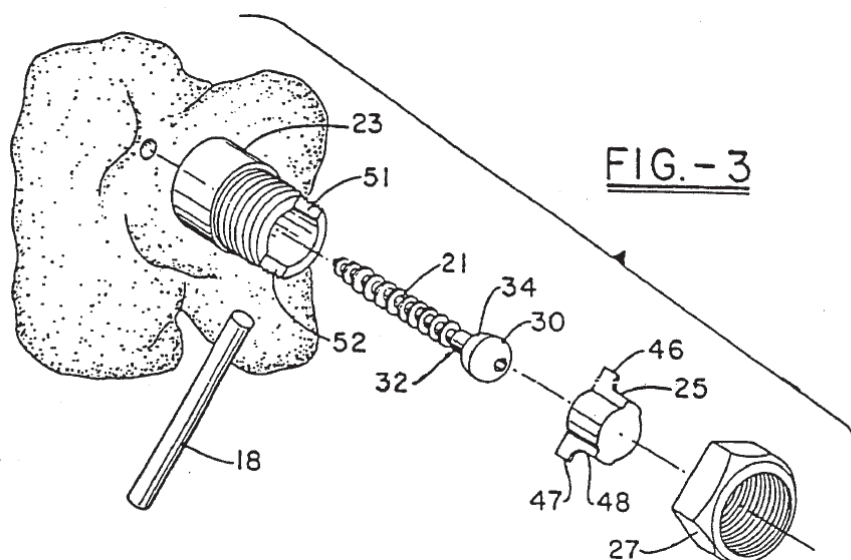
#### B. This Court’s Precedent

Regardless of the mandate in the prior appeal, Applied argues that this court’s precedent clearly establishes that parts of an embodiment that are not identified during claim construction as corresponding to the claimed functions cannot be relevant to the “way” analysis. U.S. Surgical responds that Applied’s alleged rule is in fact contrary to the precedent of this court. According to U.S. Surgical, this court has previously referred to unidentified structure during the “way” analysis and has stated that the equivalency analysis should involve looking outside the identified structure to “the context of the invention,” IMS Tech., 206 F.3d at 1436. While we appreciate Applied’s concerns about a roving “way” analysis that permits defendants to confuse or mislead the jury by seizing upon structural differences that are in no way related to the means-plus-function limitation, we conclude that U.S. Surgical’s references to the outer valve portions comport with our precedent.

Applied is correct that we said in Cardiac Pacemakers, Inc. v. St. Jude Medical, Inc. that the “corresponding structure must include all structure that actually performs the recited function.” 296 F.3d 1106, 1119 (Fed. Cir. 2002). Applied is also correct that under Asyst Technologies, Inc. v. Empak, Inc., parts of an invention that do not perform the recited function are not properly included in the identified structure. 268 F.3d 1364, 1371-72 (Fed. Cir. 2001). However, no one is disputing these rules of law in this case. The district court and U.S. Surgical agree with Applied that the outer valve portions of

the ring-levers-teeth embodiment are not part of the identified structure, and the jury instructions reflected this agreement. J.A. 3588. Cardiac Pacemakers and Asyst do not, however, answer the question of whether additional parts of the claimed invention can be relevant to the “way” in which the identified structure functions.

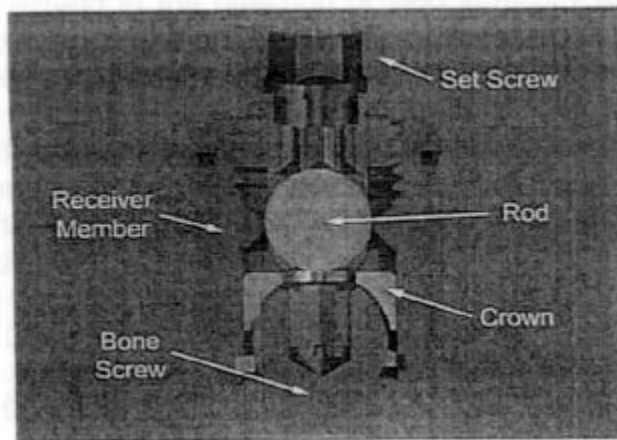
The most instructive case cited by either party is Cross Medical Products, Inc. v. Medtronic Sofamor Danek, Inc., 424 F.3d 1293 (Fed. Cir. 2005). In Cross Medical, this court considered a patent related to a fixation device used to stabilize and align the bones of a patient’s spine. 424 F.3d at 1297. The claim at issue included a “securing means” limitation, which the district court found was governed by § 112, ¶ 6. Id. at 1306. An embodiment of the invention, taken from Figure 3 of the patent, is shown below.



On appeal, this court identified the function of the securing means as “caus[ing] the rod [18] to bear against the rod-receiving channel [51-52] by applying a compressive force in the direction of the vertical axis while ensuring that substantially equal forces are applied along the longitudinal axis of the rod [18] on opposite sides—either inside or

outside—of the rod-receiving channel [51-52].” Id. at 1307. This court identified the structure corresponding to the function as “a nut [27] with internal threads cooperating with the external threads of the anchor seat [23] (an ‘external nut’).” Id. at 1308.

The accused product in Cross Medical used a “set screw” to hold a rod in a receiver member, as shown below:



Id. at 1298. In contrast to the nut shown in Figure 3, which had internal threads that mated with threads on the outside of the anchor seat, the set screw had external threads that mated with threads on the inside of the receiving member. Id. An important effect of this difference, the defendant argued, was that set screws “apply a splaying force to the side walls of the anchor seat while external nuts do not.” Id. at 1315. Relying in part on the alleged splaying force, this court held that there was “a genuine issue of material fact as to whether the set screw accomplishes the claimed function in substantially the same way as the external nut.” Id. at 1316. Thus, the court considered the side walls of the anchor seat, which were not mentioned in its identification of the corresponding structure, as part of its “way” analysis.

Applied’s attempt to distinguish the side walls in Cross Medical from the outer valve portions at issue in this case is unpersuasive. Applied maintains that, contrary to

U.S. Surgical's assertions, the side walls were in fact identified structure. Specifically, Applied argues that because the identified structure included the "external threads of the anchor seat," the anchor seat is part of the identified structure. Appellant's Reply Br. 18. Further, Applied asserts that because the side walls are an "integral part" of the anchor seat, and because the threads are "part" of the side walls of the anchor seat, the side walls are also part of the identified structure. Id. Setting aside our concern that Applied's approach to defining the identified structure appears inconsistent with our precedent,<sup>4</sup> we conclude that U.S. Surgical's reliance on the outer valve portions was permissible even under this approach. The identified structure in the present case is "a ring that is capable of moving side to side because it has a diameter less than that of the recess that holds it, and that is connected to levers with teeth that are in turn attached to the septum valve." Applied II, 448 F.3d at 1330 (emphasis added). Thus, under Applied's interpretation of Cross Medical, the septum valve and all "integral parts" thereof can be considered during the "way" analysis. According to Figure 6 and the specification's description of the ring-levers-teeth embodiment, "[t]he septum valve 36

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<sup>4</sup> Under Asyst, the identified structure cannot include that which does not perform the recited function. 268 F.3d at 1370. In Cross Medical, the identified structure was "a nut with internal threads cooperating with the external threads of the anchor seat (an 'external nut')." 424 F.3d at 1308. While the external threads on the anchor seat were involved in the recited function, there was no suggestion that any other part of the anchor seat, including the side walls, participated. See Asyst, 268 F.3d at 1371 ("The corresponding structure to a function set forth in a means-plus-function limitation must actually perform the recited function, not merely enable the pertinent structure to operate as intended . . ."). Thus, it seems inconsistent with Asyst to expand the identified structure to include either the side walls or the rest of the anchor seat. We are also concerned about the potential scope of Applied's logic. For example, if the corresponding structure was identified as "wheels cooperating with the axle of the car," would the car itself, as well as everything that could reasonably be deemed an "integral part" of the car, such as the steering wheel, also be considered identified structure? This would almost certainly conflict with Asyst.



also includes outer portions 39 which extend radially outwardly from inner portions 37.”  
'553 patent, col.4 ll.44-46. Thus, even using Applied's approach, we conclude that the outer portions are an “integral part” of the septum valve and can be considered as part of the “way” analysis.

Finally, we emphasize that we do not purport to create a new standard of relevance for evidence pertaining to the “way” prong of the function-way-result test. Instead, our holding is limited to the conclusion that Applied's argument for excluding the outer valve portions from consideration cannot be squared with Cross Medical, and thus Applied has not persuaded us that the district court erred.

### III. CONCLUSION

For the foregoing reasons, the district court's denial of Applied's motion for a new trial on infringement is affirmed.