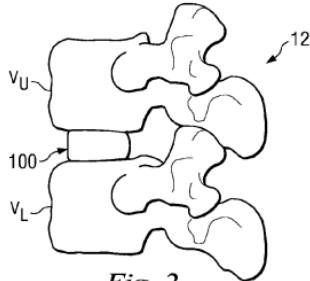


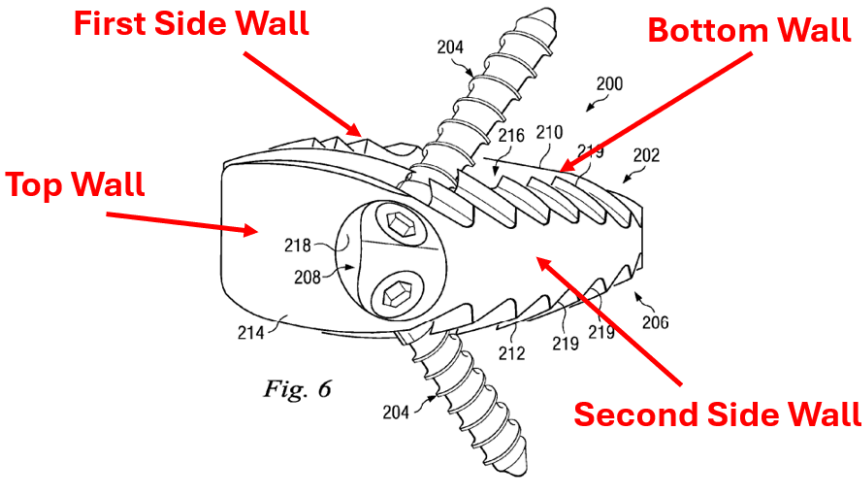
Exhibit E2 – Invalidity of U.S. Patent No. 10,238,505 in view of Waugh References and Coates and/or Bray

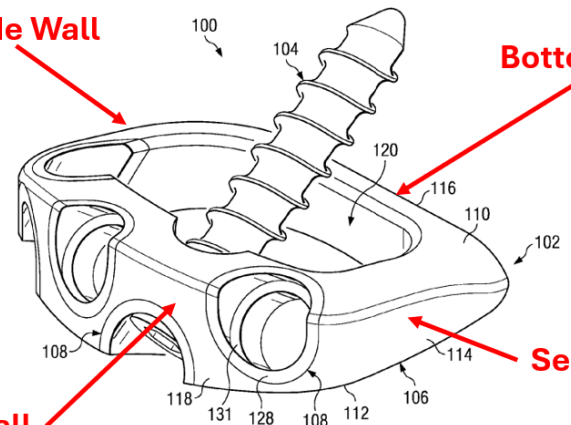
U.S. Patent No. 8,268,000 to Waugh (“Waugh ’000”), alone or in combination with U.S. Patent Application 2008/0249569 (“Waugh ’569”), alone or in combination with U.S. Patent No. 8,425,607 (“Waugh ’607”), alone or in combination with U.S. Patent No. 5,423,826 to Coates et al. (“Coates”), alone or in combination with U.S. Patent No. 8,100,976 to Bray (“Bray”), alone or in combination with other prior art identified in the cover pleading and/or discussed below, disclose(s) or render(s) claims 1, 2, 4, 5, 6, 7, 8, 9, 14, 15, 16, 17, 19 and 20 of U.S. Patent No. 10,238,505 (“’505 Patent”) obvious. Moskowitz has claimed a March 24, 2008 priority date for the ’505 Patent. *See* Moskowitz First Supplemental Response to Medtronic Interrogatory 1. Waugh ’000 issued on September 18, 2012 from an application filed April 3, 2007, and is therefore prior art under at least pre-AIA § 102(e). Waugh ’569 published on October 9, 2008 from an application filed April 3, 2007, and is therefore prior art under at least pre-AIA § 102(e). Waugh ’607 issued on April 23, 2013 from an application filed April 3, 2007, and is therefore prior art under at least pre-AIA § 102(e). Coates issued on June 13, 1995, and is therefore prior art under pre-AIA § 102(b). Bray issued on January 24, 2012 from an application filed January 5, 2007, and is therefore prior art under at least pre-AIA § 102(e). Nothing in this chart should be construed as an admission of infringement or the correctness of Moskowitz’s interpretation of the claims as reflected in the infringement contentions.

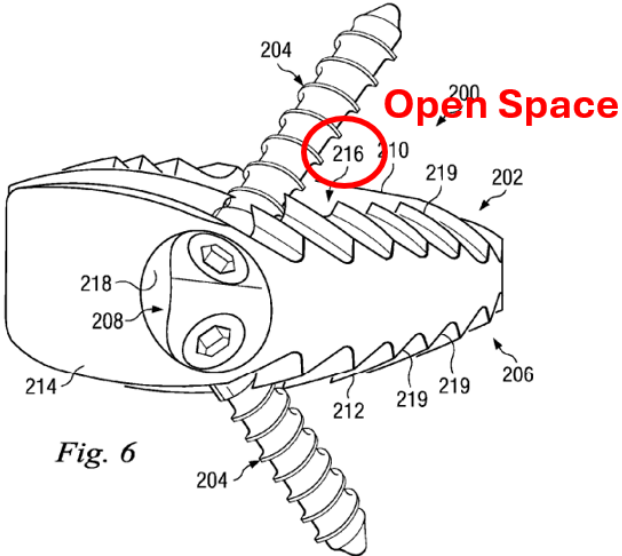
Claims	Exemplary Citations to Prior Art
Claim 1	
[1A] An intervertebral combination internal screw guide and fixation apparatus configured to be inserted into a disc space between a first vertebral body and a second vertebral body and to provide fusion of the first vertebral body to the second vertebral body via biological bone fusion and screw fusion, the apparatus comprising:	To the extent the preamble is limiting, Waugh ’000 discloses this limitation. Waugh ’000 is directed to a “composite interbody spacer,” which is another term for a device meant to be inserted “into a disc space between a first vertebral body and a second vertebral body.” Waugh ’000 at Title, Abstract; <i>see also id.</i> at 1:19-21 (“In order to preserve the intervertebral disc space for proper spinal-column function, and interbody spacer can be inserted between the adjacent vertebrae.”); <i>id.</i> at 3:44-47 (“Once the diseased or degenerated disc is removed, an implantable prosthetic device may be used to maintain the vertebral spacing and provide vertebral support.”). This placement is shown below.  <i>Fig. 2</i> <i>Id.</i> at Fig. 2.

Claims	Exemplary Citations to Prior Art
	The embodiments disclosed in Waugh '000 are further “combination internal screw guide[s] and fixation apparatus[es] configured to ... provide fusion of the first vertebral body to the second vertebral body via biological bone fusion and screw fusion.” For example, Figures 3 through 5 show one embodiment—“implantable device 100”—of Waugh '000. That embodiment includes a “hollow region 120 [that] may allow placement of bone growth materials, such as allograft to promote bonding and fusion of the implantable device 100 to the adjacent vertebrae.” <i>Id.</i> at 4:21-25. Figures 6 through 8, in turn, depict another embodiment, implantable device 200. Waugh '000 states that implantable device 200 “may include any of the features of any of the other embodiments disclosed herein, and to reduce repetition, many of the features and advantages of the different embodiments will not be reiterated. Implantable device 200, like implantable device 100, includes an “interbody spacer 202” having “hollow region 216.” <i>Id.</i> at 7:9-13. It is thus clear from the disclosure of Waugh '000 that the hollow region of implantable device 200, like that of implantable device 100, allows the “placement of bone growth materials, such as allograft to promote bonding and fusion of the implantable device [200] to the adjacent vertebrae.” <i>Id.</i> at 4:21-25. Indeed, Waugh '000 states with regard to all its embodiments: “Further, in some circumstances, it is advantageous to pack the hollow region of any of the interbody spacers with a suitable osteogenetic material or therapeutic composition. Osteogenic materials include, without limitation, autograft, allograft, xenograft, demineralized bone, synthetic and natural bone graft substitutes, such as bioceramics and polymers, and osteoinductive factors.” <i>Id.</i> at 11:55-64. Implantable device 200 also includes screws—referred to as “bone anchors 204”—configured to be guided through “[b]one anchor receiving bores 226, 228” of implantable device 200 and embedded into the vertebrae both above and below the implant 200, in order to affix the two vertebrae and the implant 100 together. <i>Id.</i> at 6:65, 7:27; <i>see also id.</i> at 7:44-53 (“[T]he bone anchors 204 ... extend into the bearing endplates of the vertebrae, thereby securely locating the interbody spacer [202] entirely within the disc space.”).

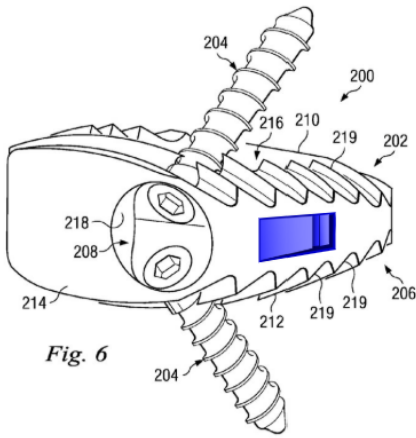
Claims	Exemplary Citations to Prior Art
	<i>Fig. 6</i> <i>Fig. 7</i> <i>Id.</i> at Figs. 6, 7. Waugh '000 thus discloses “[a]n intervertebral combination internal screw guide and fixation apparatus configured . . . to provide fusion of the first vertebral body to the second vertebral body via biological bone fusion and screw fusion,” as Waugh '000’s apparatus (<i>e.g.</i>, including interbody spacer 202, screws 204, and bone/fusion-promoting substances packed into the implant) fuses the adjacent vertebrae by allowing for bone growth through the hollow region of the implant and additionally by way of the bone anchors 204 anchoring the implant. For the foregoing reasons, and additionally for the reasons discussed below with respect to limitations [1B]-[1K], Waugh '000 discloses the preamble of claim 1, to the extent it is limiting. To the extent Moskowitz argues this limitation is not disclosed or rendered obvious by Waugh '000, it would have been obvious to a person having ordinary skill in the art to modify Waugh '000 or combine it with any of the other prior art references identified in Defendants’ Invalidity Contentions Cover Pleading that disclose this limitation.

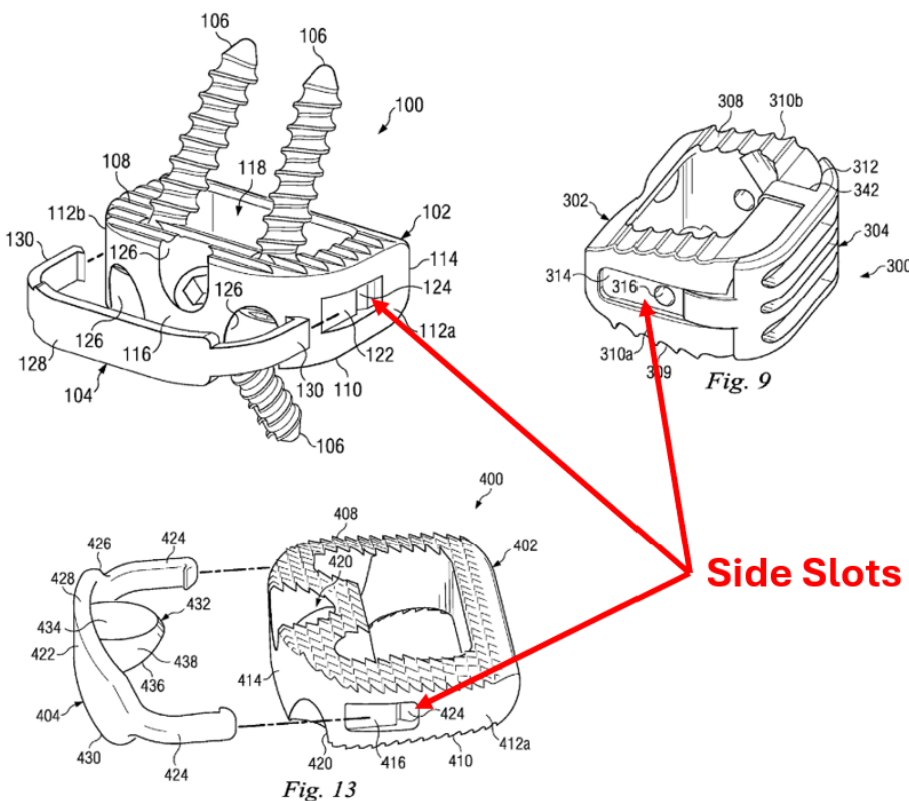
Claims	Exemplary Citations to Prior Art
[1B] an intervertebral spacer including a top wall, a bottom wall, and first and second sidewalls, wherein the intervertebral spacer defines: an open space between the top, bottom, first, and second sidewalls capable of receiving bone filling for biological bone fusion,	Waugh '000 discloses “an intervertebral spacer including a top wall, a bottom wall, and first and second sidewalls[.]” As discussed as to claim limitation [1A], Waugh '000 discloses “interbody spacer 202,” which is an “intervertebral spacer” because it is inserted in a disc space between adjacent vertebrae. Waugh '000 at 6:61-64, 7:48-50, Fig. 2. As shown in Figure 6 below, interbody spacer 202 includes “a top wall, a bottom wall, and first and second sidewalls[.]” While the angle of Figure 6 does not clearly show each wall, a POSITA would have understood from that image that the shape of interbody spacer 202 is similar to that of interbody spacer 102. For that reason, Figure 3, which depicts interbody spacer 102, is also depicted below, to more clearly show where the walls of interbody spacer 202 are located. 

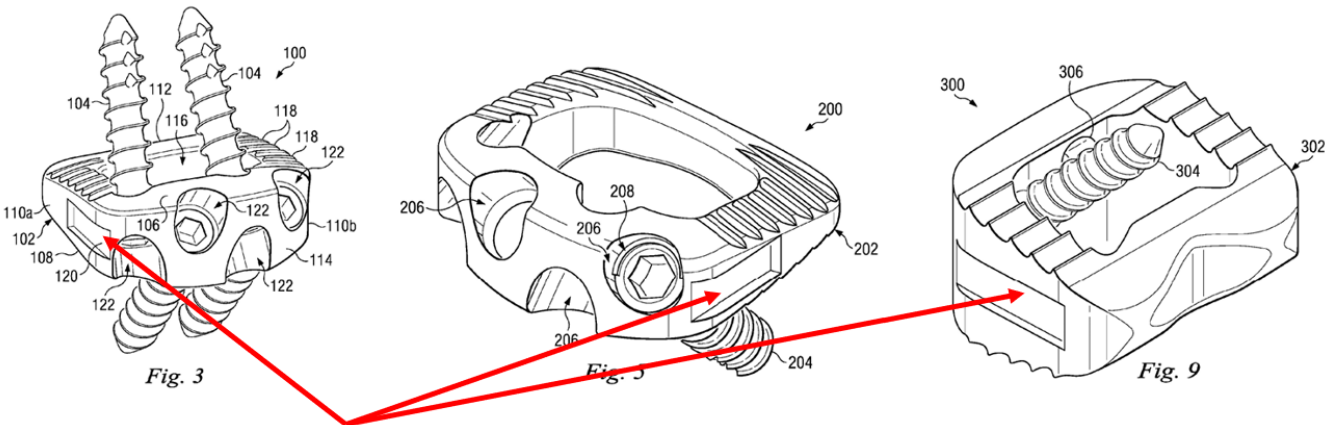
Claims	Exemplary Citations to Prior Art
	 <i>Fig. 3</i> <i>Id.</i> at Figs. 3, 6 (both annotated). Waugh further discloses “wherein the intervertebral spacer defines: an open space between the top, bottom, first, and second sidewalls capable of receiving bone filling for biological bone fusion[.]” For example, as discussed as to claim limitation [1A] and shown in figure 6 above, interbody spacer 202 defines a “hollow region 216” (“open space”) between “the top, bottom, first, and second sidewalls.” As also discussed as to claim limitation [1A], a POSITA reviewing Waugh ’000 would understand that the purpose of this “hollow region” is to be filled with “bone growth materials, such as allograft to promote bonding and fusion of the implantable device [200] to the adjacent vertebrae.” <i>Id.</i> at 4:21-25; <i>see also id.</i> at 11:55-64. It is thus “capable of receiving bone filling for biological bone fusion[.]”

Claims	Exemplary Citations to Prior Art
	 <i>Fig. 6</i> <i>Id.</i> at Fig. 6 (annotated). For the foregoing reasons, Waugh '000 discloses this claim limitation. To the extent Moskowitz argues this limitation is not disclosed or rendered obvious by Waugh '000, it would have been obvious to a person having ordinary skill in the art to modify Waugh '000 or combine it with any of the other prior art references identified in Defendants' Invalidity Contentions Cover Pleading that disclose this limitation.
[1C] a first slot on a first outer side of the first sidewall	Waugh '000 discloses this limitation. Two embodiments of Waugh '000—both also directed to interbody spacers having the same general shape as interbody spacer 202—show slots on the side walls, as follows.

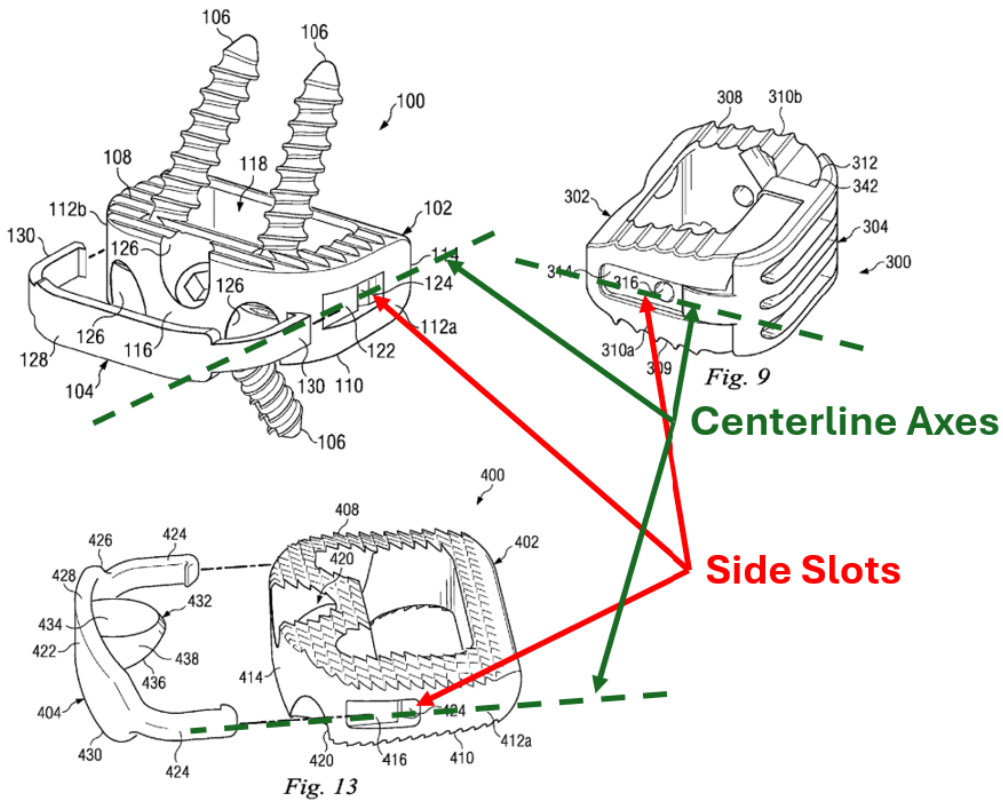
Claims	Exemplary Citations to Prior Art
	Waugh '000 at Figs. 12, 16 (both annotated). A POSITA viewing these images would have understood that the side slots shown on the visible sidewalls in these images would have been similarly included, in a symmetric fashion, on the surfaces of the other sidewalls that are hidden. Indeed, a portion of one such side slot is shown on the far side of Figure 16. Waugh '000 thus discloses both “a first slot on a first outer side of the first sidewall” and “a second slot on a second outer side of the second sidewall of the two sidewalls, wherein the second slot is positioned opposite of the first slot.” Given Waugh '000's disclosure that “the implantable device 200 may include any of the features of any of the other embodiments disclosed herein,” <i>id.</i> at 7:3-7, Waugh '000 also discloses these slide slots with respect to the embodiment depicted in Figures 6-8. This is particularly so because a POSITA would have understood that side slots such as those depicted in Figures 12 and 16 were useful for allowing a tool to hold the implant for insertion, and so would have been motivated to add these side slots to implantable device 200. Indeed, Waugh '000 discloses, with respect to all its embodiments, that “[m]inimally invasive techniques employing instruments and implants are also contemplated.” <i>Id.</i> at 12:29-30. Side slots applied to the embodiment in Figures 6 through 8 of Waugh '000 would look roughly like this, as a POSITA would understand.

Claims	Exemplary Citations to Prior Art
	 Fig. 6 Waugh '000 at Fig. 6 (with side slot added). For the foregoing reasons, Waugh '000 discloses this claim limitation. It is even more clear that Waugh '000 discloses this claim limitation when the teachings of Waugh '569 and/or Waugh '607 are incorporated. Waugh '000, Waugh '569, and Waugh '607 were filed on the same day, all directed to intervertebral spacers. The two inventors of Waugh '000 were two of the three inventors of each of Waugh '569 and Waugh '607. Waugh '000 specifically references the patent applications that became Waugh '569 and Waugh '607, and incorporates them by reference in their entirety. <i>See id.</i> at 6:47-57. Waugh '569, for its part, also includes several embodiments of intervertebral spacers with side slots, as shown below.

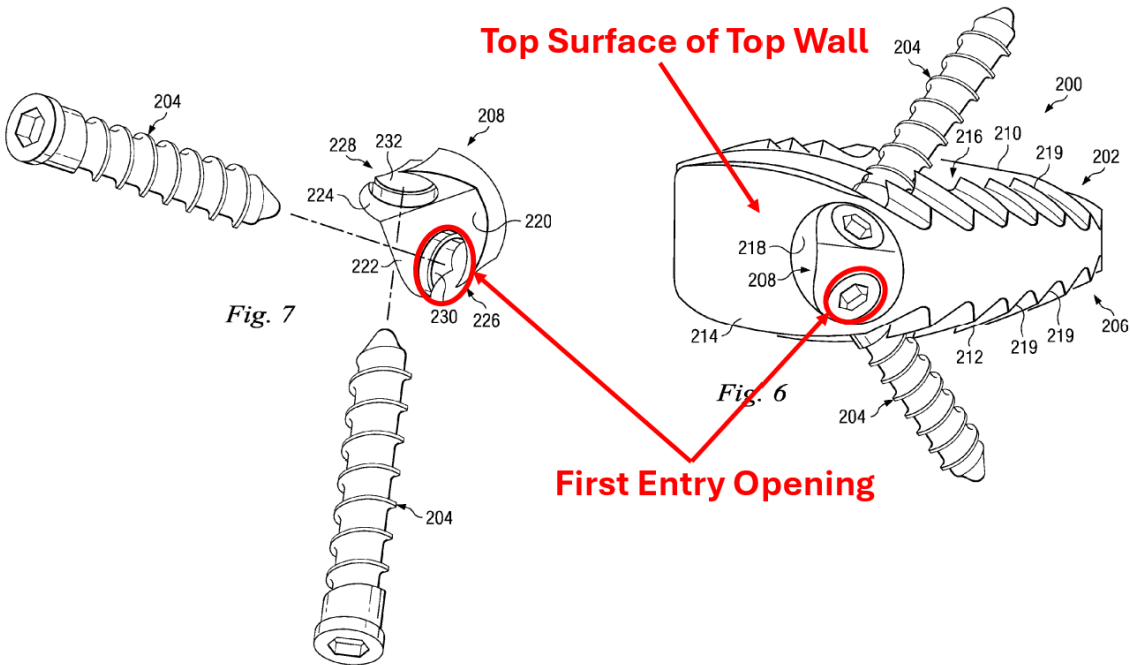
Claims	Exemplary Citations to Prior Art
	 Waugh '569 at Figs. 4, 9, 13 (all annotated). Waugh '569 further depicts an insertion tool, and explains that it “has two arms 156 configured to interface with the recessed slots 122 on the implant member side surfaces 112a-b.” Waugh '607 similarly depicts multiple embodiments of intervertebral spacers with side slots (shown as element 120 in Figure 3).

Claims	Exemplary Citations to Prior Art
	 Side Slots Waugh '607 at Figs. 3, 5, 9 (annotated). The varying perspectives of these figures in Waugh '569 and Waugh '607 further confirm that the side slots are symmetrical and on both sides of the implant devices. Waugh '607 describes the side slots disclosed in Figure 3 as follows: “The side surfaces 110a-b each include a recessed slot 120 configured to cooperate with an insertion tool (not shown) that selectively connects to the implant member 102. In some embodiments, within the slot 120, connecting impressions (not shown) may be configured to provide a secure connection with the insertion tool.” Waugh '607 at 3:59-64. Waugh '569 and Waugh '607 thus further confirm that a POSITA would have understood the benefit of adding slots to the intervertebral spacer to allow it to interact with a tool for insertion. It would thus have been obvious and easy for a POSITA to do so with respect to implantable device 200. For the foregoing reasons, Waugh '000 discloses this claim limitation, alone or in combination with Waugh '569 and/or Waugh '607. To the extent Moskowitz argues this limitation is not disclosed or rendered obvious by Waugh '000, alone or in combination with Waugh '569 and/or Waugh '607, it would have been obvious to a person having ordinary skill in the art to modify Waugh '000, Waugh '569, or Waugh '607 or combine it with any of the other prior art references identified in Defendants' Invalidity Contentions Cover Pleading that disclose this limitation.

Claims	Exemplary Citations to Prior Art
[1D] a second slot on a second outer side of the second sidewall of the two sidewalls, wherein the second slot is positioned opposite of the first slot, wherein the first slot is positioned along a first centerline axis that bisects the first side wall and wherein the second slot is positioned along a second centerline axis that bisects the second side wall,	As described above with respect to claim limitation [1C], Waugh '000, alone or in combination with Waugh '569 and/or Waugh '607, discloses “a second slot on a second outer side of the second sidewall of the two sidewalls, wherein the second slot is positioned opposite of the first slot[.]” Waugh '000, alone or in combination with Waugh '569 and/or Waugh '607, also discloses “wherein the first slot is positioned along a first centerline axis that bisects the first side wall,” as shown in the figures below. The image contains two technical drawings of mechanical components. Fig. 12 on the left shows a component with a top surface 400, side walls 406 and 408, and a bottom surface 420. It features a series of teeth 414 and 416. A dashed green line represents a centerline axis, and a red arrow points to a side slot. Fig. 16 on the right shows a similar component with a top surface 500, side walls 506 and 508, and a bottom surface 520. It also has teeth 514 and 516. A dashed green line represents a centerline axis, and a red arrow points to a side slot. The text 'Centerline Axes' is written in green above the dashed lines, and 'Side Slots' is written in red below the red arrows. Waugh '000 at Figs. 12, 16 (annotated).

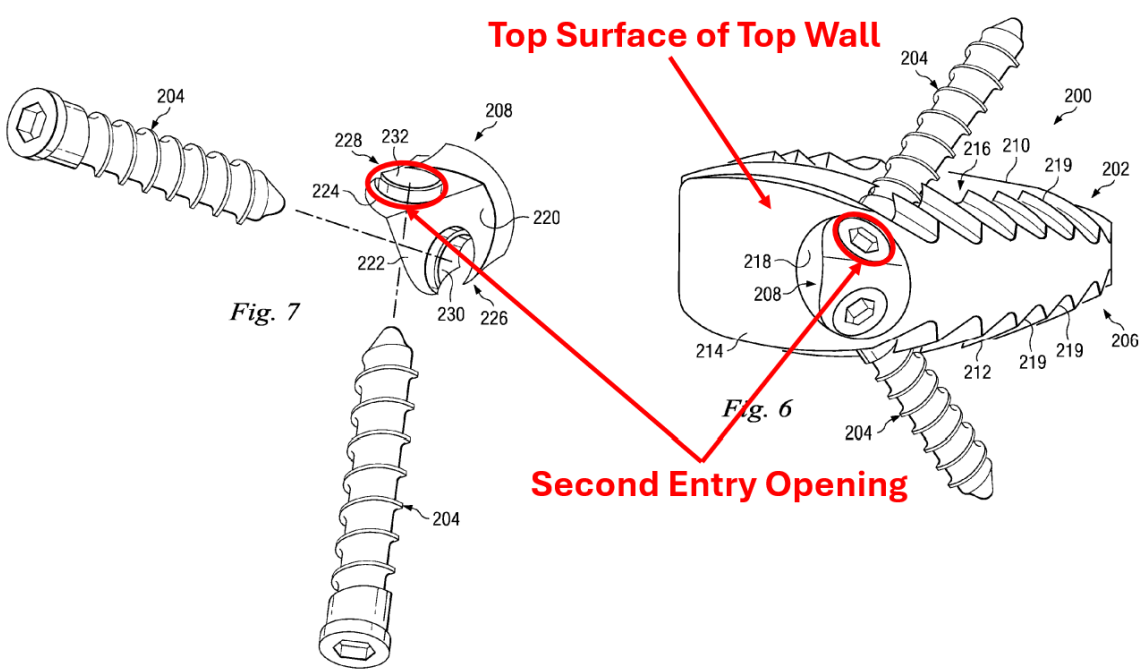
Claims	Exemplary Citations to Prior Art
	 The image contains three technical drawings of mechanical components, labeled Fig. 9, Fig. 13, and an unlabeled top-left view. The top-left view shows a component with two threaded fasteners (106) and various internal features (102, 104, 108, 110, 112a, 112b, 116, 118, 122, 124, 126, 128, 130). Fig. 9 shows a component with a central opening and side features (302, 304, 308, 310a, 310b, 312, 316, 318, 320, 322, 324, 326, 328, 330, 332, 334, 336, 338, 340, 342, 344, 346, 348, 350). Fig. 13 shows a component with a central opening and side features (402, 404, 406, 408, 410, 412a, 414, 416, 418, 420, 422, 424, 426, 428, 430, 432, 434, 436, 438, 440, 442, 444, 446, 448, 450). Red arrows point from the text 'Centerline Axes' and 'Side Slots' to specific features in the drawings. Dashed green lines indicate the centerline axes, and red arrows indicate the side slots. Centerline Axes Side Slots Fig. 9 Fig. 13 Waugh '569 at Figs. 4, 9, 13 (annotated).

Claims	Exemplary Citations to Prior Art
	Waugh '607 at Figs. 3, 5, 9 (annotated). Similarly, a POSITA would have understood based on the depictions of the embodiments in the above figures that “the second slot is positioned along a second centerline axis that bisects the second side wall,” because the positioning of the second slot on the second sidewall mirrors the position of the first slot on the first sidewall. For the foregoing reasons, Waugh '000, alone or in combination with Waugh '569 and/or Waugh '607, discloses this claim limitation. To the extent Moskowitz argues this limitation is not disclosed or rendered obvious by Waugh '000, alone or in combination with Waugh '569 and/or Waugh '607, it would have been obvious to a person having ordinary skill in the art to modify Waugh '000, Waugh '569, and/or Waugh '607 or combine it with any of the other prior art references identified in Defendants' Invalidity Contentions Cover Pleading that disclose this limitation.
[1E] a first internal screw guide having a first entry opening and a first exit opening, the first entry opening of the first internal screw guide formed at least partially in a	Waugh '000 discloses this limitation. Waugh '000 discloses that the combination of the first portion and second portion of interbody spacer 202 include “[b]one anchor receiving bores 226, 228 [that] extend through the second portion 208” Waugh '000 at 7:27-29. “As described above with reference to the implantable device 100, the bone anchors 204 extend through the front surface 214 and out the hollow region 216 or alternatively, through the front surface 214 and the upper or lower surfaces 210, 212.” <i>Id.</i> at 7:44-48. “As

Claims	Exemplary Citations to Prior Art
top surface of the top wall and the first exit opening formed at least partially in a bottom surface of the top wall and at least partially in a first side surface of the top wall,	shown in FIG. 6, when the second portion 208 is embedded within the first portion 206, each bone anchor 204 extends through one of the second portion bores 226, 228 and through the first portion bore 218.” <i>Id.</i> at 7:54-57. Each of bores 226 and 228 is an “internal screw guide,” as it constrains and directs the screw though the implant and into the vertebral body. As shown in Figures 6 and 7 below which depict implantable device 200 both assembled and not assembled, a first bore 226 is the “first internal screw guide having a first entry opening,” <i>i.e.</i>, the opening through which the bone anchor 204 enters the implantable device 200.  Waugh '000 at Figs. 6, 7 (annotated). As shown, when implantable device 200 is assembled, the first entry opening is “formed at least partially in a top surface of the top wall[.]”

Claims	Exemplary Citations to Prior Art
	First bore 226 also has “a first exit opening” (an opening where bone anchor 204 exits the interbody spacer 202) that is “formed at least partially in a bottom surface of the top wall and at least partially in a first side surface of the top wall,” as shown in Figure 6. While the exit opening of the upward-pointing screw (the second exit opening) is more clearly depicted in this Figure, a POSITA would understand that the exit openings of the upward-pointing screw and that of the downward-pointing screw are symmetrical. <i>Fig. 6</i> <i>Id.</i> at Fig. 6 (annotated). Similarly, Figure 3, which a POSITA would understand depicts an embodiment with a similar shape to that of implantable device 200, shows a different angle that better shows how the exit opening is formed at least partially in a bottom surface of the top wall and at least partially in a first side surface of the side wall.

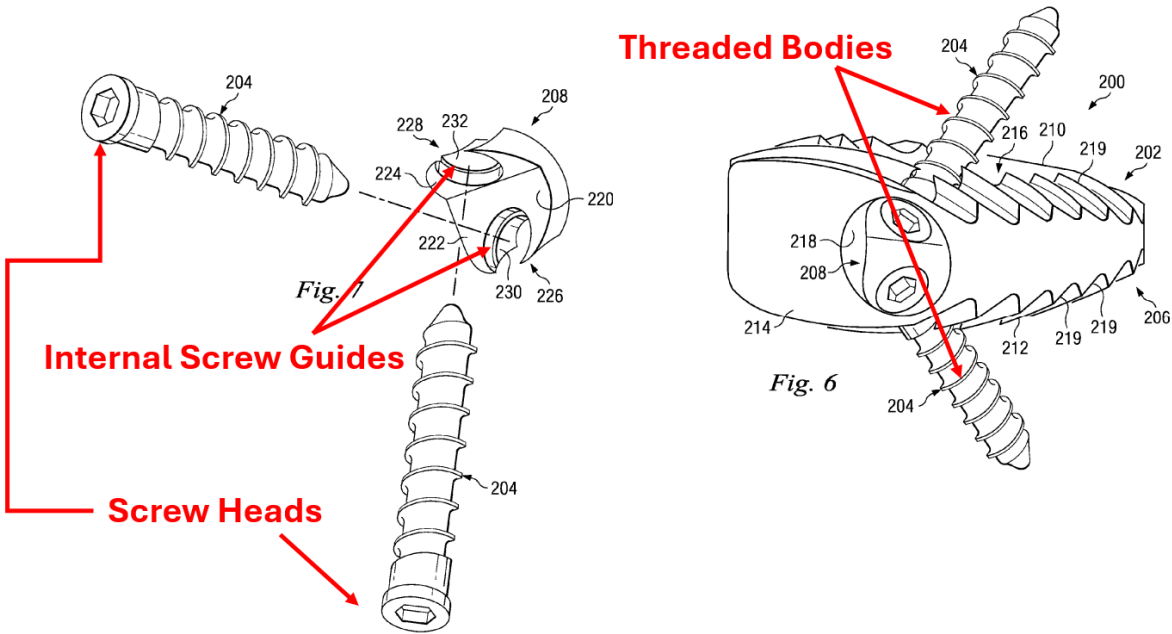
Claims	Exemplary Citations to Prior Art
	<i>Fig. 3</i> <i>Id.</i> at Fig. 3 (annotated). This limitation recites various surfaces of the top wall, namely “a top surface of the top wall,” “a bottom surface of the top wall,” and “a first side surface of the top wall” with reference to the locations where the first entry opening and first exit opening are formed. As shown above, Waugh '000 discloses these surfaces. For the foregoing reasons, Waugh '000 discloses this claim limitation. To the extent Moskowitz argues this limitation is not disclosed or rendered obvious by Waugh '000, it would have been obvious to a person having ordinary skill in the art to modify Michelson or combine it with any of the other prior art references identified in Defendants' Invalidity Contentions Cover Pleading that disclose this limitation.

Claims	Exemplary Citations to Prior Art
[1F] a second internal screw guide having a second entry opening and a second exit opening, the second entry opening of the second internal screw guide formed at least partially in the top surface of the top wall and the second exit opening formed at least partially in the bottom surface of the top wall and at least partially in a second side surface of the top wall so as to extend in a direction different than that of the first internal screw guide,	Waugh '000 discloses this limitation for at least reasons similar to those given above for limitation [1E]. <i>See also:</i>  Waugh '000 at Figs. 6, 7, (annotated). In addition, as shown in the above figures, bone anchor receiving bores 226 and 228 are angled such that the “second internal screw guide ... extends in a direction different than that of the first internal screw guide.” “In this exemplary embodiment, the surfaces 222, 224 angle to correspond to the desired angle of the bone anchors 204, extending from the interbody spacer 202. Thus, in this embodiment, the first and second bores 226, 228 are substantially perpendicular to the planes formed by the respective angled surfaces 222, 224.” <i>Id.</i> at 7:35-40. For the foregoing reasons, Waugh '000 discloses this claim limitation.

Claims	Exemplary Citations to Prior Art
	To the extent Moskowitz argues this limitation is not disclosed or rendered obvious by Waugh '000, it would have been obvious to a person having ordinary skill in the art to modify Michelson or combine it with any of the other prior art references identified in Defendants' Invalidity Contentions Cover Pleading that disclose this limitation.
[1G] an indentation in the top surface of the top wall extending between at least a portion of the first internal screw guide and the second internal screw guide, and	Waugh '000 discloses this limitation. Specifically, Waugh '000 discloses a valley between the entry opening for the first internal screw guide and that for the second internal screw guide. This valley constitutes an “indentation in the top surface of the top wall extending between at least a portion of the first internal screw guide and the second internal screw guide.” The image contains two technical drawings, Fig. 6 and Fig. 7, illustrating a medical device with internal screw guides. Fig. 6 is a perspective view showing a top wall (200) with a top surface (208) and an indentation (218) between two internal screw guides (204). The indentation is defined by a valley (214) between the entry openings (210, 212) of the screw guides. Other components labeled include 202, 206, 216, 219, and 220. Fig. 7 is a cross-sectional view showing the internal screw guides (204) and the top wall (200) with the indentation (218) clearly visible. Other components labeled include 222, 224, 226, 228, 230, 232, and 234. Red arrows from the text labels point to the corresponding features in the drawings. Waugh '000 at Figs. 6, 7 (annotated). For the foregoing reasons, Waugh '000 discloses and/or suggests this claim limitation.

Claims	Exemplary Citations to Prior Art
	To the extent Moskowitz argues this limitation is not disclosed or rendered obvious by Waugh '000, it would have been obvious to a person having ordinary skill in the art to modify Waugh '000 or combine it with any of the other prior art references identified in Defendants' Invalidity Contentions Cover Pleading that disclose this limitation.
[1H] a hole extending into the top wall at an angle that is perpendicular to the top surface of the top wall and at a position that is located in the indentation between the first internal screw guide and the second internal screw guide,	Waugh '000 discloses or suggests this limitation. While the hole in the indentation is not explicitly pictured, it is described. Specifically, the embodiment of Figures 6 through 8 of Waugh '000 includes a “locking mechanism 234 to inhibit screw back-out.” Waugh '000 at 7:65-66. “In this exemplary embodiment, the locking mechanism 234 is a plate having a threaded post (not shown) configured to be driven into a corresponding receiving hole on the second portion 208 or elsewhere in a manner known in the art. Although not shown in Fig. 7, the receiving hole may be formed in the base surface 220, although other locations are contemplated.” <i>Id.</i> at 7:66-8:5. Figure 8 depicts the locking mechanism inserted into the correct location, while Figure 6 depicts the device without the locking mechanism inserted. Based on this description, a POSITA would understand that the most reasonable and workable location for the hole described would be in the center of bore 218, as pictured in blue below, driving straight into surface 220 in a direction perpendicular to the top surface of the top wall. A straight-in hole in the center of bore 218 would be the best and easiest way to allow the circular plate “having a threaded post” to be driven into a corresponding receiving hole. A POSITA reading this description would understand the below figure to be the first and most optimal hole placement/configuration of that described. This is especially so given the location of the hexagonal indentation in locking mechanism 234, which suggests that locking mechanism 234 would be screwed along that axis.

Claims	Exemplary Citations to Prior Art
	<i>Fig. 8</i> <i>Fig. 6</i> Waugh at Figs. 6, 7 (annotated). For the foregoing reasons, Waugh '000 discloses and/or suggests this claim limitation. To the extent Moskowitz argues this limitation is not disclosed or rendered obvious by Waugh '000, it would have been obvious to a person having ordinary skill in the art to modify Waugh '000 or combine it with any of the other prior art references identified in Defendants' Invalidity Contentions Cover Pleading that disclose this limitation.
[1I] a first screw having a first screw head and a first threaded body that is sized and configured to be inserted through the first internal screw guide;	Waugh '000 discloses this limitation, as well as limitation [1J], below. As shown above with respect to limitation [1G], the first and second internal screw guides are bone anchor receiving bores 226 and 228. The figures depict how those screw guides are located within interbody spacer 202, and how bone anchors 204 (screws) are then inserted through them.

Claims	Exemplary Citations to Prior Art
	 Fig. 6 Fig. 7 Threaded Bodies Internal Screw Guides Screw Heads Waugh '000 at Figs. 6, 7 (annotated); <i>see also id.</i> at 7:54-57 (“As shown in FIG. 6, when the second portion 208 is embedded within the first portion 206, each bone anchor 204 extends through one of the second portion bores 226, 228 and through the first portion bore 218.”). For the foregoing reasons, Waugh '000 discloses and/or suggests this claim limitation. To the extent Moskowitz argues this limitation is not disclosed or rendered obvious by Waugh '000, it would have been obvious to a person having ordinary skill in the art to modify Waugh '000 or combine it with any of the other prior art references identified in Defendants' Invalidity Contentions Cover Pleading that disclose this limitation.
[1J] a second screw having a second screw head and a second threaded body that is sized and configured to be inserted	Waugh '000 discloses and/or suggests this claim limitation for the reasons stated above as to claim limitation [1I].

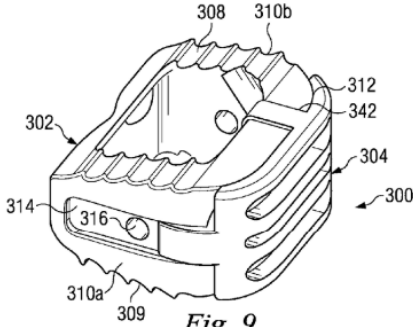
Claims	Exemplary Citations to Prior Art
through the second internal screw guide; and	To the extent Moskowitz argues this limitation is not disclosed or rendered obvious by Waugh '000, it would have been obvious to a person having ordinary skill in the art to modify Waugh '000 or combine it with any of the other prior art references identified in Defendants' Invalidity Contentions Cover Pleading that disclose this limitation.
[1K] a screw locking mechanism positioned in the indentation of the intervertebral spacer and extending at least partially into the hole.	Waugh '000 discloses this limitation for the reasons discussed above with respect to limitation [1H]. Waugh '000 at Figs. 6, 8 (annotated). Specifically, “locking mechanism 234,” which is described as a “plate having a threaded post,” <i>id.</i> at 7:65-8:3, is a “screw locking mechanism” because it is a “locking mechanism 234 to inhibit screw back-out.” <i>Id.</i> at 7:65-66. It is positioned in the indentation of the intervertebral spacer because, as described above, Waugh '000 describes a hole positioned in the valley (indentation) between the two internal screw guides. It extends at least partially into the hole because, as described above, its “threaded post” is “configured to be driven into a corresponding receiving hole on the second portion 208.” <i>Id.</i> at 7:65-8:3. For the foregoing reasons, Waugh '000 discloses and/or suggests this claim limitation.

Claims	Exemplary Citations to Prior Art
	To the extent Moskowitz argues this limitation is not disclosed or rendered obvious by Waugh '000, it would have been obvious to a person having ordinary skill in the art to modify Waugh '000 or combine it with any of the other prior art references identified in Defendants' Invalidity Contentions Cover Pleading that disclose this limitation.
Claim 2	
[2] The apparatus of claim 1, wherein the screw locking mechanism comprises means for preventing the first and second screw from pulling out of the first and second internal screw guides.	Waugh '000 discloses or renders obvious claim 1. <i>See</i> [1A]-[1K]. Waugh '000 discloses and/or suggests this limitation. As discussed with respect to claim limitations [1H] and [1K] above, Waugh discloses a screw locking mechanism, the purpose of which is to sit on top of the first and second screw to keep them from pulling out of their first and second internal screw guides. <i>See</i> Waugh '000 at 7:65-66 (“locking mechanism 234 to inhibit screw back-out”); <i>see also id.</i> at Figures 6, 8 (showing locking mechanism covering both screws); <i>id.</i> at 7:66-8:5 (“In this exemplary embodiment, the locking mechanism 234 is a plate having a threaded post (not shown) configured to be driven into a corresponding receiving hole on the second portion 208 or elsewhere in a manner known in the art. Although not shown in Fig. 7, the receiving hole may be formed in the base surface 220, although other locations are contemplated.”). It is further clear from Figures 6 and 8 that Waugh '000 includes curved portions (the outer edges of the plate) that, when the plate is in place, cover both the first and second screws and thereby prevent them from pulling out of the first and second internal screw guides. Those curved portions are “means for preventing the first and second screw from pulling out of the first and second internal screw guides.” For the foregoing reasons, Waugh '000 discloses and/or suggests this claim limitation. Waugh '569 and Waugh '607 also disclose and/or suggest “means for preventing the first and second screw from pulling out of the first and second internal screw guides,” including curved portions for doing so, as shown in the following figures.

Claims	Exemplary Citations to Prior Art
	Fig. 4 Fig. 13 Waugh '569 at Figs. 4, 13; <i>see also</i> Fig. 7. The faceplates shown in these figures (104, 204, and 404) are configured “for at least partially covering a plurality of anchor member apertures in an implantable member” and “to overlap at least a portion of the anchor member aperture and inhibit back-out of the anchor member from the anchor member aperture.” <i>Id.</i> at [0006]-[0007]; <i>see also id.</i> at [0042] (“As with the other embodiments, the faceplate 204 overlaps the anchor member apertures 214 and inhibits anchor member back-out.”). Fig. 8 Fig. 7 Fig. 5

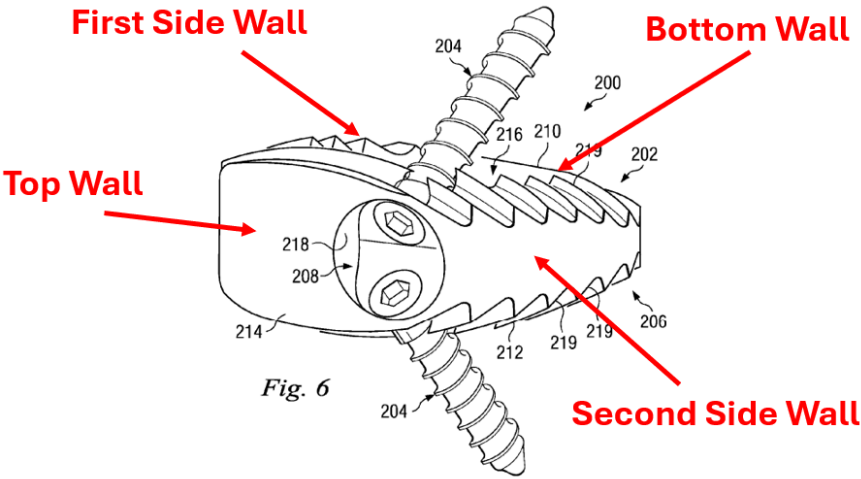
Claims	Exemplary Citations to Prior Art
	Waugh '607 at Figs. 5, 7, 8. The locking mechanism of Waugh '607 is a “locking ring” configured to prevent “anchor members” (screws) from backing out. <i>See, e.g.</i>, Waugh '607 at Title (“Anchor Member Locking Features”); <i>id.</i> at Abstract (“A locking ring may be supplied to inhibit back-out of the anchor member.”); <i>id.</i> at 1:38-49 (“The locking ring and the anchor member may be configured in a manner that allows the anchor member to pass in a first direction and restricts passage in an opposite direction.”); <i>id.</i> at 6:66-7:2 (“Once the anchor member head portion 232 passes, the locking ring 208 springs back into place behind the anchor member head portion 232, thereby physically inhibiting any undesired anchor member back-out.”). Waugh '000 specifically discusses that Waugh '569 and '607 address other locking mechanisms, thus encouraging a POSITA to combine the locking mechanisms disclosed therein with the implant of Waugh '000. <i>See</i> Waugh '000 at 6:47-60. To the extent Moskowitz argues this limitation is not disclosed or rendered obvious by Waugh '000, it would have been obvious to a person having ordinary skill in the art to modify Waugh '000 or combine it with Waugh '569 or Waugh '607, or any of the other prior art references identified in Defendants' Invalidity Contentions Cover Pleading that disclose this limitation.
Claim 4	
[4] The apparatus of claim 1, wherein the screw locking mechanism comprises a narrow portion that is positioned in the hole and a wider portion that is positioned in the indentation, wherein the narrow portion extends from the wider portion into the hole.	Waugh '000 discloses or renders obvious claim 1. <i>See</i> [1A]-[1K]. As explained above with respect to claim limitations [1H] and [1K], the screw locking mechanism of Waugh '000 takes the form of a plate with a threaded post. Waugh at 7:65-8:3. Put differently, the screw locking mechanism of Waugh '000 takes the general form of a screw with an oversized head portion. As such, it comprises “a narrow portion”—the threaded post—that, as discussed above, is positioned in the hole to hold the screw locking mechanism in place. The “wider portion,” in turn, is the plate, which is positioned in the indentation as described above. The threaded post “extends from the wider portion into the hole.” For the foregoing reasons, Waugh '000 discloses and/or suggests this claim limitation. To the extent Moskowitz argues this limitation is not disclosed or rendered obvious by Waugh '000, it would have been obvious to a person having ordinary skill in the art to modify Waugh '000 or combine it with any of the other prior art references identified in Defendants' Invalidity Contentions Cover Pleading that disclose this limitation.

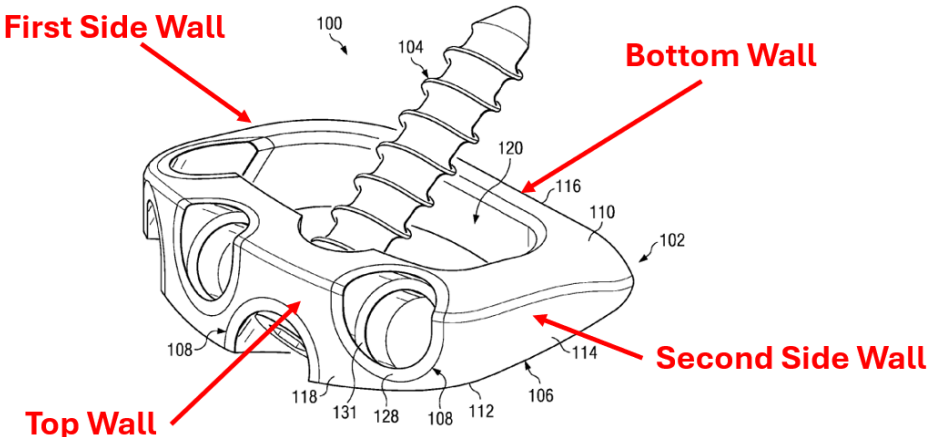
Claims	Exemplary Citations to Prior Art
Claim 5	
[5] The apparatus of claim 1, wherein the hole is a circular hole.	Waugh '000 discloses or renders obvious claim 1. <i>See</i> [1A]-[1K]. Waugh '000 discloses or suggests “wherein the hole is a circular hole.” While Waugh '000 does not picture the hole, it states that the purpose of the “receiving hole” is to receive a “threaded post.” Waugh '000 at 7:65-8:5. In light of this disclosure, a POSITA would have understood the receiving hole to be circular, or would have at least understood that a circular receiving hole would be the simplest, most straightforward, and best way to receive a threaded post. For the foregoing reasons, Waugh '000 discloses or suggests this claim limitation. To the extent Moskowitz argues this limitation is not disclosed or rendered obvious by Waugh '000, it would have been obvious to a person having ordinary skill in the art to modify Waugh '000 or combine it with any of the other prior art references identified in Defendants’ Invalidity Contentions Cover Pleading that disclose this limitation.
Claim 6	
[6A] The apparatus of claim 1, wherein the intervertebral spacer further defines: a first circular side hole extending into the first outer surface of the first sidewall; and	Waugh '000 discloses or renders obvious claim 1. <i>See</i> [1A]-[1K]. Waugh '000 further discloses “wherein the intervertebral spacer further defines: a first circular side hole extending into the first outer surface of the first sidewall.” Fig. 12 Fig. 13 Side Holes

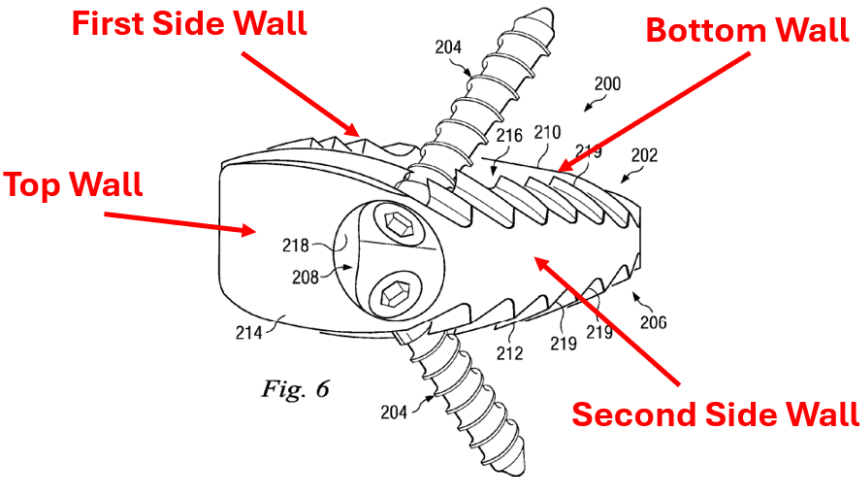
Claims	Exemplary Citations to Prior Art
	Waugh '000 at Figs. 12, 13 (annotated). While the side holes are not depicted with respect to the embodiment depicted in Figures 6-8, a POSITA would be motivated to apply them to that embodiment, in light of the disclosure in Waugh '000 with respect to that embodiment that “[t]he implantable device 200, as well as any embodiment disclosed herein, may include any of the features of any of the other embodiments disclosed herein” Waugh '000 at 6:61-7:8. A POSITA would have further understood their value and the likely benefit from adding side holes to the embodiment of Figures 6 through 8. In particular, while Waugh '000 does not describe the side holes, both Waugh '569 and Waugh '607—which Waugh '000 incorporates by reference—describe their benefits. For example, Waugh '569 also depicts these side holes, and describes them as “connecting impressions 316 [that] are configured to provide a secure connection with the insertion tool.” Waugh '569 at [0045]; <i>see also</i> Fig. 9.  Fig. 9 Waugh '569 at Fig. 9. Similarly, Waugh '607 references “connecting impressions” that may be located within the side slots to “provide a secure connection with the insertion tool.” Waugh '569 at 3:59-64. Given Waugh '000’s disclosure that “[m]inimally invasive techniques employing instruments and implants are also contemplated,” Waugh '000 at 12:29-30, a POSITA would have understood that the side holes of the other figures in Waugh '000, as well as the side holes of Waugh '569 and Waugh '607, would be beneficial to add to the embodiment depicted in Figures 6 through 8 of Waugh '000 for the purpose of better engagement between an insertion tool and the interbody device.

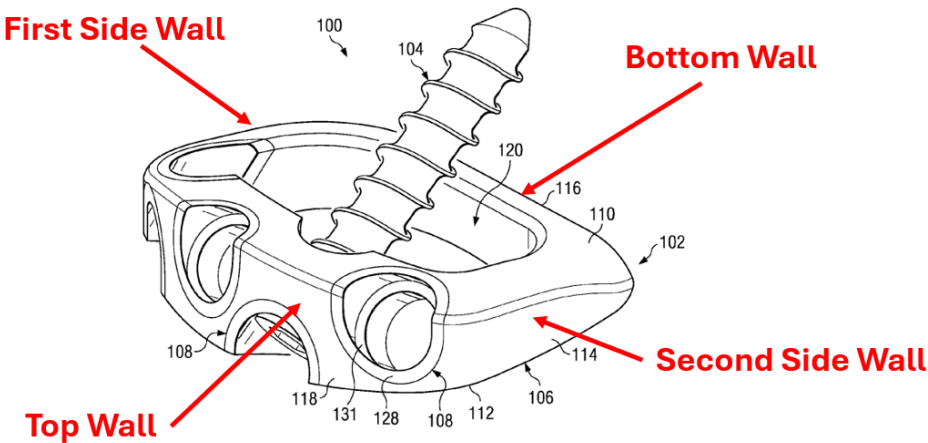
Claims	Exemplary Citations to Prior Art
	For the foregoing reasons, Waugh '000 discloses this claim limitation, alone or in combination with Waugh '569 and/or Waugh '607. To the extent Moskowitz argues this limitation is not disclosed or rendered obvious by Waugh '000, alone or in combination with Waugh '569 and/or Waugh '607 it would have been obvious to a person having ordinary skill in the art to modify Waugh '000, Waugh '569, and/or Waugh '607 or combine it with any of the other prior art references identified in Defendants' Invalidity Contentions Cover Pleading that disclose this limitation.
[6B] a second circular side hole extending into the second outer surface of the second sidewall, wherein the second circular side hole is positioned opposite of the first circular side hole,	Waugh '000, alone or in combination with Waugh '569 and/or Waugh '607, discloses “a second circular side hole extending into the second outer surface of the second sidewall, wherein the second circular side hole is positioned opposite of the first circular side hole.” This is shown in the discussion above with respect to claim limitation [6A]. In particular, Figure 13 of Waugh '000 and Figure 9 of Waugh '569 show perspectives that make visible the second side hole, positioned opposite of the first circular side hole. Further, a POSITA would have understood that the side holes should be symmetrical and opposite, to better facilitate engagement with a tool like the one depicted in Figure 6 of Waugh '569. For the foregoing reasons, Waugh '000, alone or in combination with Waugh '569 and/or Waugh '607, discloses or suggests this claim limitation. To the extent Moskowitz argues this limitation is not disclosed or rendered obvious by Waugh '000, alone or in combination with Waugh '569 and/or Waugh '607 it would have been obvious to a person having ordinary skill in the art to modify Waugh '000, Waugh '569, and/or Waugh '607 or combine it with any of the other prior art references identified in Defendants' Invalidity Contentions Cover Pleading that disclose this limitation.
[6C] wherein the first slot and the first circular side hole are both positioned along the first centerline axis that bisects the first side wall and wherein the second slot and the second circular side hole are both positioned along the second	Waugh '000, alone or in combination with Waugh '569 and/or Waugh '607, discloses this limitation. This is shown in the discussion above with respect to claim limitations [6A] and [6B], as well as claim limitation [1D]. It is further shown in the below figures.

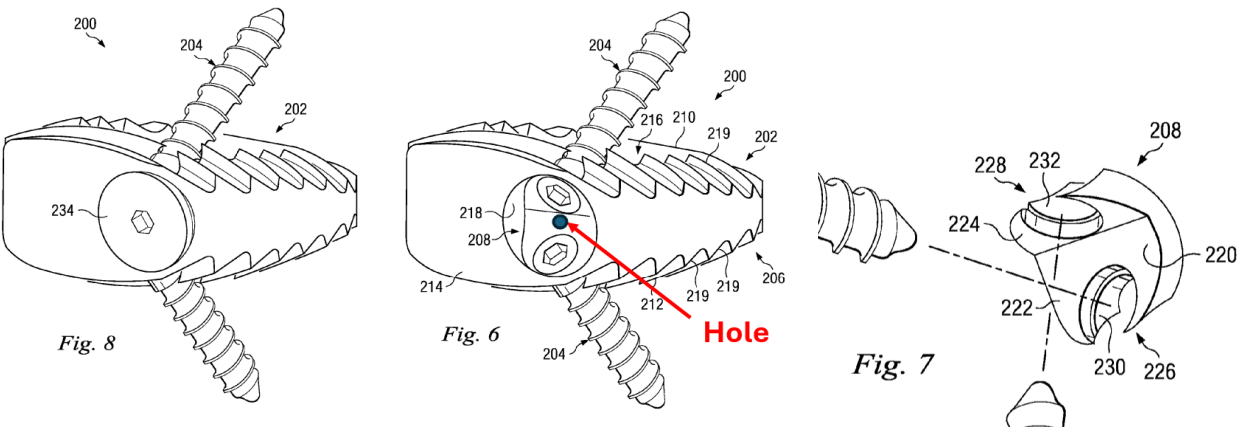
Claims	Exemplary Citations to Prior Art
centerline axis that bisects the second side wall.	Side Holes Centerline Axes <i>Fig. 13</i> Waugh '000 at Fig. 13 (annotated). Centerline Axes <i>Fig. 9</i> Waugh '569 at Fig. 9 (annotated). For the foregoing reasons, Waugh '000, alone or in combination with Waugh '569 and/or Waugh '607, discloses or suggests this claim limitation.

Claims	Exemplary Citations to Prior Art
	To the extent Moskowitz argues this limitation is not disclosed or rendered obvious by Waugh '000, alone or in combination with Waugh '569 and/or Waugh '607 it would have been obvious to a person having ordinary skill in the art to modify Waugh '000, Waugh '569, and/or Waugh '607 or combine it with any of the other prior art references identified in Defendants' Invalidity Contentions Cover Pleading that disclose this limitation.
Claim 7	
[7] The apparatus of claim 1, wherein the top wall is continuous with the first and second sidewalls.	Waugh '000 discloses or renders obvious claim 1. <i>See</i> [1A]-[1K]. Waugh '000 discloses “wherein the top wall is continuous with the first and second sidewalls.” For example, as shown below in figure 6, at least a portion of the top wall (having front surface 214, Waugh '000 at 7:9-14) is “continuous” with the first and second sidewalls because there are no breaks or corners between those components.  Fig. 6 Waugh '000 at Fig. 6 (annotated).

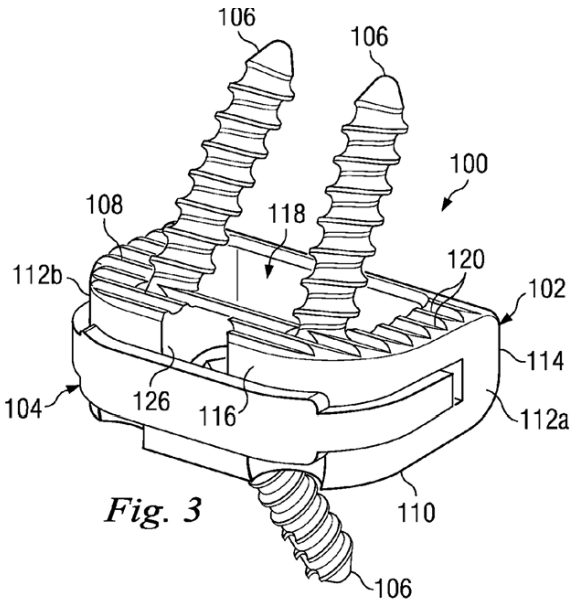
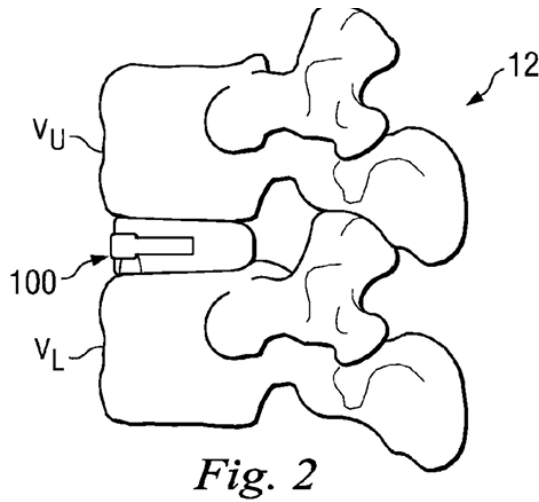
Claims	Exemplary Citations to Prior Art
	Figure 3 of Waugh '000, while being of a different embodiment, illustrates the same general shape as the embodiment of Figures 6 through 8, and thus shows the continuous nature of both embodiments from a different perspective.  <i>Fig. 3</i> <i>Id.</i> at Fig. 3 (annotated). A POSITA would understand that Figure 6 depicts the same thing from a different perspective. For the foregoing reasons, Waugh '000 discloses this claim limitation. To the extent Moskowitz argues this limitation is not disclosed or rendered obvious by Waugh '000, it would have been obvious to a person having ordinary skill in the art to modify Waugh '000 or combine it with any of the other prior art references identified in Defendants' Invalidity Contentions Cover Pleading that disclose this limitation.
Claim 8	
[8] The apparatus of claim 1, wherein the open space extends from an inner surface of the first	Waugh '000 discloses or renders obvious claim 1. <i>See</i> [1A]-[1K].

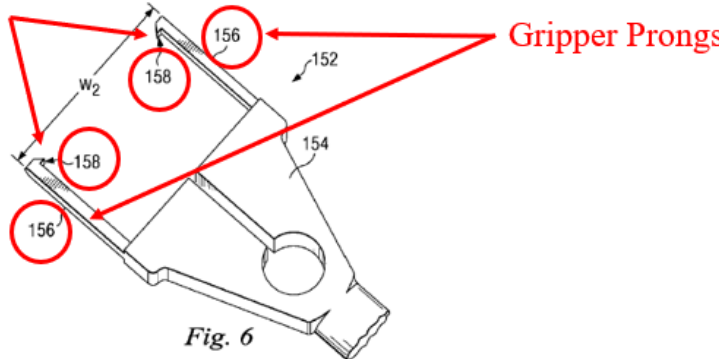
Claims	Exemplary Citations to Prior Art
sidewall to an inner surface of the second sidewall and extends from an inner surface of the top wall to an inner surface of the bottom wall.	Waugh '000 discloses “wherein the open space extends from an inner surface of the first sidewall to an inner surface of the second sidewall and extends from an inner surface of the top wall to an inner surface of the bottom wall[.]” For example, as discussed above with respect to claim limitation [1B] and shown in figure 6 below, the “hollow region 216” (“open space”) extends from “an inner surface of the first sidewall” to “an inner surface of the second sidewall” and extends from “an inner surface of the top wall” to “an inner surface of the bottom wall.”  Waugh '000 at Fig. 6 (annotated). Figure 3 of Waugh '000, while being of a different embodiment, illustrates the same general shape as the embodiment of Figures 6 through 8, and thus shows the way in which the “hollow region”—numbered 120 in Figure 3—extends between the sidewalls and top and bottom wall from a different perspective. A POSITA would understand that Figure 6 depicts the same thing from a different perspective.

Claims	Exemplary Citations to Prior Art
	 <i>Fig. 3</i> <i>Id.</i> at Fig. 3 (annotated). For the foregoing reasons, Waugh '000 discloses this claim limitation. To the extent Moskowitz argues this limitation is not disclosed or rendered obvious by Waugh '000, it would have been obvious to a person having ordinary skill in the art to modify Waugh '000 or combine it with any of the other prior art references identified in Defendants' Invalidity Contentions Cover Pleading that disclose this limitation.
Claim 9	
[9] The apparatus of claim 1, and further comprising means for facilitating integration and fusion with superior and inferior vertebral bodies.	Waugh '000 discloses or renders obvious claim 1. <i>See</i> [1A]-[1K]. Waugh '000 further discloses the apparatus of claim 1 “further comprising means for facilitating integration and fusion with superior and inferior vertebral bodies.” Waugh '000 also discloses this claim limitation under a claim interpretation under which the claimed “means” are ridges. For example, Waugh '000 discloses that the upper and lower surfaces 210, 212 of its implant 200 that engage with the upper and lower vertebral bodies, respectively, include bone-engaging projections for engaging the adjacent vertebral bodies. Waugh '000 at 7:14-20 (“In the embodiment shown, the upper and lower surfaces

Claims	Exemplary Citations to Prior Art
	To the extent Moskowitz argues this limitation is not disclosed or rendered obvious by Waugh '000, it would have been obvious to a person having ordinary skill in the art to modify Waugh '000 or combine it with any of the other prior art references identified in Defendants' Invalidity Contentions Cover Pleading that disclose this limitation.
Claim 14	
[14] The apparatus of claim 1, wherein a diameter of the hole is smaller than a diameter of the first and second internal screw guides.	Waugh '000 discloses or renders obvious claim 1. <i>See</i> [1A]-[1K]. The hole is discussed above with reference to claim limitation [1H] and [1K]. As set forth above, the hole is not depicted, but it is described. Waugh '000 at 7:65-8:5 ("FIG. 8 shows the implantable device 200 with a locking mechanism 234 to inhibit screw back-out. In this exemplary embodiment, the locking mechanism 234 is a plate having a threaded post (not shown) configured to be driven into a corresponding receiving hole on the second portion 208 or elsewhere in a manner known in the art. Although not shown in FIG. 7, the receiving hole may be formed in the base surface 220, although other location are contemplated.").  Waugh '000 at Figs. 6 (annotated), 7-8. Given the instruction that the hole should be located on surface 220, that hole should be located in the center of that surface, between the two screw guide holes (226 and 228), for reasons discussed above with reference to claim limitations [1H] and [1K]. As such, given the geometry depicted in Figures 6 and 7, and given the

Claims	Exemplary Citations to Prior Art
	fact that the hole needs to be complete enough to engage with the threaded post of the locking mechanism, a POSITA would understand that the hole would need to be significantly smaller than the holes depicted as the screw guide holes (226 and 228). For the foregoing reasons, Waugh '000 discloses or renders obvious this claim limitation. To the extent Moskowitz argues this limitation is not disclosed or rendered obvious by Waugh '000, it would have been obvious to a person having ordinary skill in the art to modify Waugh '000 or combine it with any of the other prior art references identified in Defendants' Invalidity Contentions Cover Pleading that disclose this limitation.
Claim 15	
[15] The apparatus of claim 1, wherein the open space extends continuously from the first sidewall to the second sidewall.	Waugh '000 discloses or renders obvious claim 1. <i>See</i> [1A]-[1K]. Waugh '000 further discloses “wherein the open space extends continuously from the first sidewall to the second sidewall” as described and depicted above with respect to claim [8]. For the foregoing reasons, Waugh '000 discloses this claim limitation. To the extent Moskowitz argues this limitation is not disclosed or rendered obvious by Waugh '000, it would have been obvious to a person having ordinary skill in the art to modify Waugh '000 or combine it with any of the other prior art references identified in Defendants' Invalidity Contentions Cover Pleading that disclose this limitation.
Claim 16	
[16A] A system comprising: The apparatus of claim 1; and a tool for manipulating and inserting the spacer into the disc space between the first vertebral	Waugh '000 in view of Waugh '569 and/or Coates discloses and/or suggests this limitation. Limitation [16A] relates to a system including the apparatus of claim 1 and a tool for manipulating and inserting the intervertebral spacer of the apparatus into the disc space between the vertebrae. Waugh '000 discloses or renders obvious the apparatus of claim 1. <i>See</i> [1A]-[1K]. Waugh '569 discloses a tool for manipulating and inserting the intervertebral cage into the space between two vertebral bodies to provide biological bone fusion and screw fusion. As discussed above in limitation [1A], the

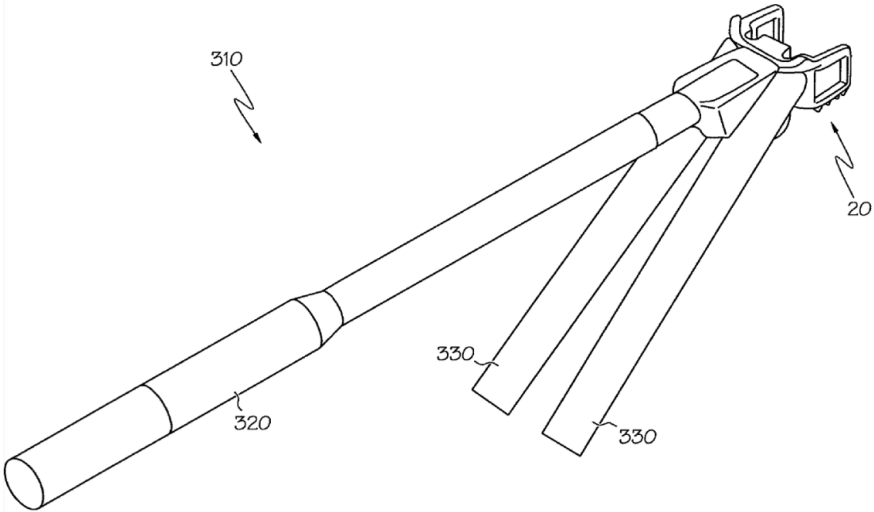
Claims	Exemplary Citations to Prior Art
body and the second vertebral body to provide fusion of the first vertebral body to the second vertebral body via biological bone fusion and screw fusion,	purpose of the Waugh '000 implant is to be inserted between the first vertebral body and the second vertebral body to provide fusion of the first vertebral body to the second vertebral body via biological bone fusion and screw fusion. The purpose of the Waugh '569 implant is the same. Waugh '569 discloses an “implantable medical device attachable to bone structure using an anchor member,” for “insert[ion] between adjacent vertebrae.” Waugh '569 at [0003]-[0006]; <i>see also id.</i> at Figs. 2-3. Waugh '569 discloses “a method including introducing an implant member to a vertebral segment comprising an upper and lower vertebra,” including “[a]nchor members [that] may be inserted through anchor member apertures in the implant member, the anchor members penetrating the upper and lower vertebrae.” <i>Id.</i> at [0008]. Waugh '569 further discloses a “hollow center 118” of the implantable device that “may allow placement of bone growth materials, such as allograft to promote bonding and fusion of the implantable device 100 to the adjacent vertebrae.” <i>Id.</i> at [0028].   Waugh '569 at Figs. 2, 3; <i>see also id.</i> at [0028] (describing hollow center 118 for “placement of bone growth materials, such as allograft to promote bonding and fusion of the implantable device 100 to the adjacent vertebrae”).

Claims	Exemplary Citations to Prior Art
	Waugh '569 further discloses a tool configured for manipulating and inserting its implant between the vertebral bodies. "FIG. 6 shows an end of an insertion tool 152 for implanting the implant member 102. The insertion tool 152 includes a body portion 154 and two arms 156 configured to interface with the recessed slots 122 on the implant member side surfaces 112a-b." Waugh '569 at [0038]. Locking Protrusions Gripper Prongs  <i>Fig. 6</i> Waugh '569 at Fig. 6 (annotated). A POSITA would be motivated to use the tool depicted in Waugh '569 with the implant of the embodiment depicted in Figures 6 through 8 of Waugh '000 for the reasons described herein, including that the two Waugh patent applications were filed on the same day by two of the same inventors, and Waugh '000 incorporates Waugh '569 by reference. <i>See</i> Waugh '000 at 6:47-50. Further, Waugh '000 discusses the use of "minimally invasive techniques employing instruments," thus suggesting that the POSITA should look elsewhere, such as to Waugh '569, for such known techniques and instruments. Waugh '000 at 12:29-30. This is particularly so because, as discussed above, embodiments in Waugh '000 and Waugh '569 similarly depict both side slots and holes in those side slots, suggesting that the tool in Waugh '569 will apply similarly to the implants in Waugh '000 and Waugh '569. This would give a POSITA a reasonable expectation of success in using the Waugh '569 tool with embodiments depicted in Waugh '000, including the embodiment of Figures 6-8, modified to include the side slots and side holes depicted in other embodiments of that patent. Accordingly, Waugh '000 in view of Waugh '569 discloses and/or suggests limitation [16A].

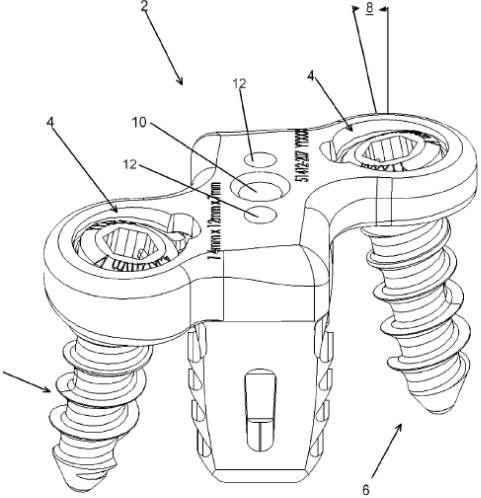
Claims	Exemplary Citations to Prior Art
	An additional tool that is relevant here, that could also be combined with Waugh '000 in light of Waugh '000's disclosure of "minimally invasive techniques employing instruments," Waugh '000 at 12:29-30, is disclosed by Coates in figures 14-19. Coates at 12:67-13:12. According to Coates, "[t]he present invention concerns spinal instrumentation systems." <i>Id.</i> at 1:10-11. As shown in figures 14 and 17 below, Coates discloses a holder-drill guide 150 ("tool") for manipulating and inserting a spinal implant in the spine. <i>Id.</i> at 12:67-13:12. Figure 14 shows the tool in a closed position (<i>e.g.</i>, when arms 151, 152 are closed) and figure 17 shows the tool in an open position (<i>e.g.</i>, when arms 151, 152 are open) where the tool is holding a spinal implant. <i>Id.</i> at 5:20-21, 26-27.

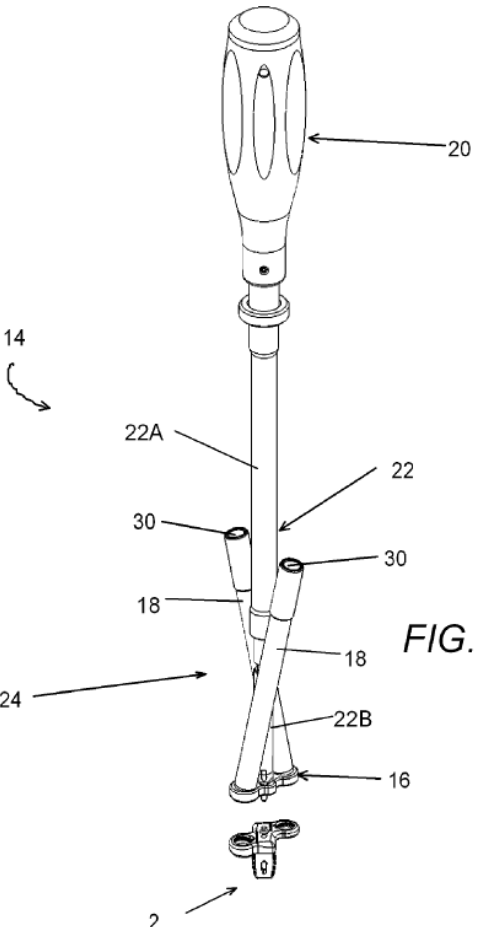
Claims	Exemplary Citations to Prior Art
	Fig. 14 Fig. 17 Coates at Figs. 14, 17. As discussed above with respect to claim limitation [1A], the implant 200 (“spacer”) which would have been inserted by Coates’ tool is inserted “into the disc space between the first vertebral body and the second vertebral body to provide fusion of the first vertebral body to the second vertebral body via biological bone fusion and screw fusion.”

Claims	Exemplary Citations to Prior Art
	A POSITA would have been motivated to use Coates' tool for manipulating and inserting Waugh '000's implant 200 in the disc space. For example, as noted above, while Waugh '000 suggests minimally invasive techniques involving instruments, it does not provide any additional details regarding such instruments. In addition, due to the nature of the surgical location, an elongated, slender tool would be preferred because it would allow for a smaller incision, which would have been better for the patient. Thus, a POSITA would have looked to previously described tools including the one disclosed in Coates. A POSITA would have had a reasonable expectation of success in utilizing Coates' tool with Waugh '000's implant. For example, as discussed further below with respect to the remaining limitations of claim 16 and as shown in figures 14 and 17 above, Coates' tool includes engagement prongs for securely holding the implant during insertion and delivery to the target site and a screw guide for guiding the screws to the implant's screw holes. A POSITA would have known to make any necessary modifications to these mechanisms in Coates' tool so they are compatible with Waugh '000's implant 200 to ensure Coates' tool would have safely and securely delivered the implant in the target disc space. A POSITA would have also been motivated to use Coates' tool as it features an elongate shaft (as discussed with respect to claim limitation [16B] below), which provides improved reach and maneuverability. Moreover, while Coates discloses using its tool to insert spinal implants such as bone plates, a POSITA would have understood that the same tool with minor modifications would have also been suitable to deliver a spinal disc implant in a disc space. Accordingly, Waugh '000 in view of Coates discloses and/or suggests limitation [16A]. Bray additionally teaches this limitation. <i>See, e.g.:</i>

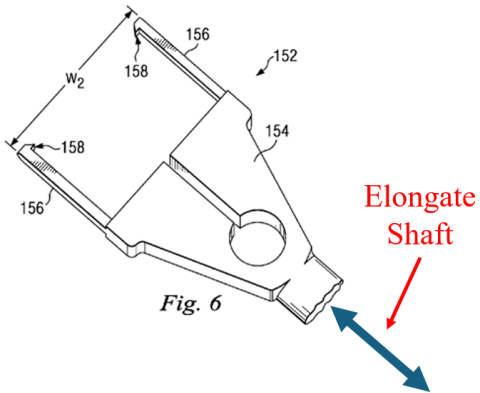
Claims	Exemplary Citations to Prior Art
	 FIG. 13 Bray at Fig. 13. The structure of Bray described and depicted herein is similar enough to that of the intervertebral cages disclosed in other prior art references discussed in these invalidity contentions (including STALIF, Waugh '000, Waugh '607, Waugh '569, Messerli, and Michelson) that it would be obvious to a POSITA to incorporate its teachings—including its teachings about the tool described in this claim limitation—into those other references and the Michelson system. Accordingly, in light of the disclosure of tools with Waugh '000, it would have been obvious to a POSITA to add the tool disclosed in Bray to Waugh '000 to insert and position the Waugh '000 device between two vertebrae “to provide fusion of the first vertebral body to the second vertebral body via biological bone fusion and screw fusion.” Adding the Bray tool to manipulate and insert the Waugh '000 device would thus have constituted: (1) combining prior art elements according to known methods to yield predictable results; (2) simple substitution of one known element for another to obtain predictable results; (3) use of known techniques to improve similar devices in the same way; and (4) applying a known technique to a known device ready for improvement to yield predictable results; and (5) choosing from a finite number of identified, predictable solutions, with a reasonable expectation of success.

Claims	Exemplary Citations to Prior Art
	As another example, U.S. Patent No. 8,172,854 to Blain <i>et al.</i> (“Blain”) discloses and/or suggests this limitation. Blain describes an instrument guide for, for example, an “interbody fusion implant 2.” <i>See</i> Blain at 4:26-28. The instrument guide “can facilitate access to the fastener apertures 4 of the implant 2, as well as provide a guide for a particular angle of access to the apertures.” <i>Id</i> at 4:28-31. “To facilitate attachment or engagement of an instrument guide to an implant 2, the implant may further comprise one or more attachment sites to facilitate the attachment and/or detachment of the instrument guide.” <i>Id.</i> at 4:39-43. Although the figures of Blain do not show engagement sites on the sides of the implant, such an arrangement is clearly contemplated (and would be known in the art, as evidenced by the discussion above). <i>See id.</i> at 4:26-55. Blain further teaches its instrument guide “can facilitate the correct drilling or insertion angle of the desired fixation angle 8 between the polyaxial fastener 6 and the screw apertures 4 of the implant 2.” <i>Id.</i> at 4:37-39; <i>see also</i>:

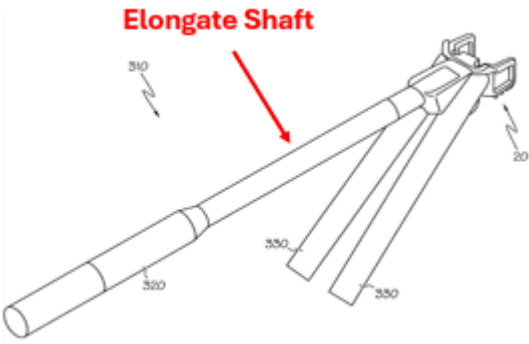
Claims	Exemplary Citations to Prior Art
	 FIG. 1 Blain at Fig. 1.

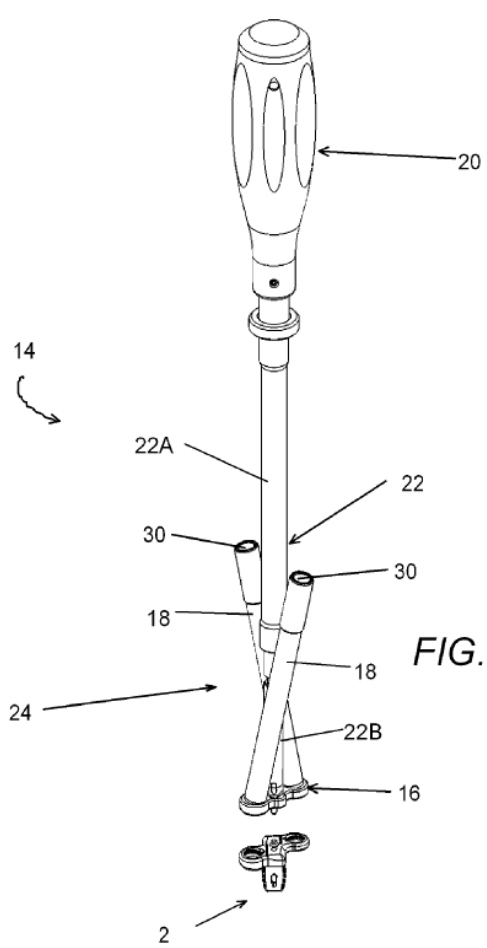
Claims	Exemplary Citations to Prior Art
	 FIG. 2A Blain at Fig. 2A. Although Blain's tool is shown inserting screws outside of the interbody device, a POSITA would readily appreciate that the tool, with minor modifications, could insert the screws in interbody device's like Waugh '000's with screws that go through them. Accordingly, Waugh '000 in view of Blain also discloses or suggests this limitation. Adding the Blain tool to manipulate and insert the Blain device would thus have constituted: (1) combining prior art elements according to known methods to yield predictable results; (2) simple substitution of one known element for

Claims	Exemplary Citations to Prior Art
	another to obtain predictable results; (3) use of known techniques to improve similar devices in the same way; and (4) applying a known technique to a known device ready for improvement to yield predictable results; and (5) choosing from a finite number of identified, predictable solutions, with a reasonable expectation of success. As another example, a POSITA would be motivated to combine any of the tools discussed above having engagement on the side of interbodies (for the avoidance of injury to the vertebral bodies) and Blain (for guiding the screws through the interbodies), and use the combined tool with Michelson. To the extent Moskowitz argues this limitation is not disclosed or rendered obvious by Waugh '000 in view of Waugh '569 and/or Coates and/or Bray and/or Blain, it would have been obvious to a person having ordinary skill in the art to modify Waugh '000, Waugh '569, Coates, Bray, and/or Blain or combine one or more of them with any of the other prior art references identified in Defendants' Invalidity Contentions Cover Pleading that disclose this limitation.
[16B] the tool comprising: an elongate shaft;	Waugh '000 in view of Waugh '569 and/or Coates discloses and/or suggests this limitation. While Waugh '569 does not explicitly state that its tool comprises an “elongate shaft,” a POSITA would readily understand that the tool’s shaft is preferably elongate to allow for better control and access to the surgical site. Indeed, Waugh describes Figure 6 as “an end of an insertion tool 152,” Waugh at [0038], suggesting that the image depicted is at the end of an elongate shaft designed to reach into the body through a small incision hole to allow for placement of the implant. The image of Figure 6 consistently shows that it appears to be cut off right where an elongate shaft would begin.

Claims	Exemplary Citations to Prior Art
	 Waugh at Fig. 6 (annotated). Similarly, Coates discloses the tool comprising multiple elongate shaft portions. As shown in figures 14 and 17 below, Coates' holder-drill guide 150 ("tool") engages the spinal implant. Coates at 5:27-28, 12:67-13:12. Coates' tool has two arms 151, 152. <i>Id.</i> at 13:4-6. The arms 151, 152 correspond to "an elongate shaft." <i>Id.</i> at 13:50-55.

Claims	Exemplary Citations to Prior Art
	Fig. 14 Elongate Shaft First and Second Gripper Prongs Fig. 17 Elongate Shaft First and Second Gripper Prongs Coates at Figs. 14, 17 (both annotated). Accordingly, Waugh '000 in view of Waugh '569 and/or Coates discloses and/or suggests limitation [16B]. Bray also discloses this limitation. <i>See, e.g.:</i>

Claims	Exemplary Citations to Prior Art
	 FIG. 13 Bray at Fig. 13 (annotated). Blain also discloses a tool with an elongate shaft. <i>See, e.g.:</i>

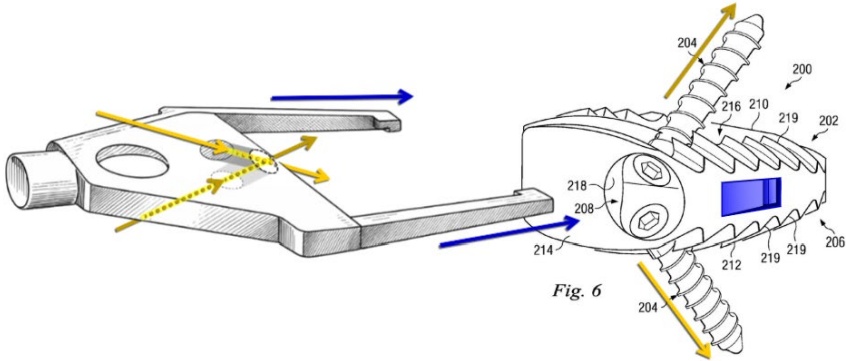
Claims	Exemplary Citations to Prior Art
	 FIG. 2A Blain at Fig. 2A. To the extent Moskowitz argues this limitation is not disclosed or rendered obvious by Waugh '000 in view of Waugh '569 and/or Coates and/or Bray and/or Blain, it would have been obvious to a person having ordinary skill in the art to modify Waugh '000, Waugh '569, Coates, Bray, and/or Blain or combine one or more of them with any of the other prior art references identified in Defendants' Invalidity Contentions Cover Pleading that disclose this limitation.

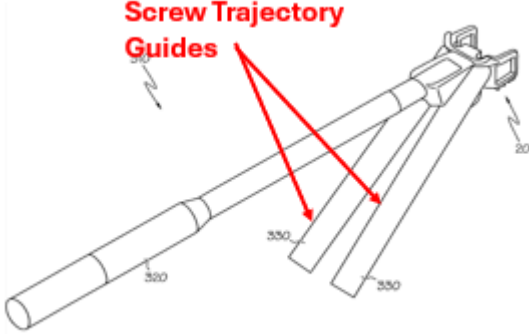
Claims	Exemplary Citations to Prior Art
[16C] first and second gripper prongs positioned such that the first gripper prong engages the first slot of the spacer and the second gripper prong engages the second slot of the spacer when the tool engages the spacer; and	Waugh '000 in view of Waugh '569 and/or Coates discloses and/or suggests this limitation. Waugh '569 discloses first and second gripper prongs positioned to engage with first and second slots of the spacer. “FIG. 6 shows an end of an insertion tool 152 for implanting the implant member 102. The insertion tool 152 includes a body portion 154 and two arms 156 configured to interface with the recessed slots 122 on the implant member side surfaces 112a-b. A locking protrusion 158 on each arm 156 is shaped and sized to cooperate with the connecting impressions 124 in the recessed slots 122.” Waugh at [0038]. Waugh '569 at Fig. 6 (annotated). Coates also discloses this limitation. For example, as shown in figures 14 and 17 below, Coate’s holder-drill guide 150 (“tool”) engages the spinal implant. Coates at 5:27-28, 12:67-13:12. Coates’ tool has two feet 157. <i>Id.</i> at 13:4-6. On each foot, there is a small hook 161 that attaches to a notch on the implant. <i>Id.</i> at 13:9-20. The small hooks 161 on either side of the feet 157 correspond to the “first and second gripper prongs,” as the hooks, with any needed modifications, would engage with the first and second slots of the implant 200, <i>i.e.</i>, the hooks 161 are “positioned such that the first gripper prong engages the first slot of the spacer and the second gripper prong engages the second slot of the spacer when the tool engages the spacer.” <i>Id.</i> at 13:50-55.

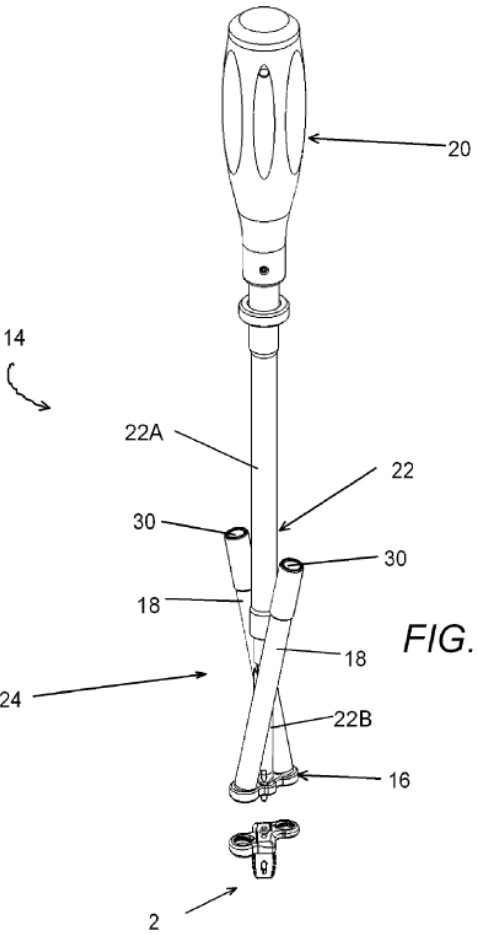
Claims	Exemplary Citations to Prior Art
	Fig. 14 Elongate Shaft First and Second Gripper Prongs Fig. 17 Elongate Shaft First and Second Gripper Prongs Coates at Figs. 14, 17 (both annotated). Accordingly, Waugh '000 in view of Waugh '569 and/or Coates discloses and/or suggests limitation [16C]. Bray also discloses and/or suggests this limitation. While the tool depicted in Figure 13 of Bray does not disclose “gripper prongs,” because it discloses one projection that interfaces with the interbody, Bray discloses another tool as well, which also acts as a screw guide. Bray at 11:48-67; <i>see also</i> Fig. 14. That second tool includes “two substantially round projections 350 that engage corresponding notches 360

Claims	Exemplary Citations to Prior Art
	provided between the secondary member 110 of the base 20 and an adjacent interface member 30 provided on each side of the secondary member 110 (see FIGS. 4 and 5) to hold the second guide tool 340 in position.” These two projections satisfy the “gripper prongs” requirement of this limitation. And it would have been obvious to a POSITA to include “gripper prongs” such as these in the tool shown in Figure 13 for additional stability when drilling the holes for and inserting the bone screws through holes 140. This is particularly so because the interbody already includes the notches 350 with which they would interface. Alternatively or additionally, in light of the references discussed herein having gripper prongs, it would have been obvious to add gripper prongs to the other tools discussed herein to ensure secure installation of the interbodies. To the extent Moskowitz argues this limitation is not disclosed or rendered obvious by Waugh ’000 in view of Waugh ’569 and/or Coates and/or Bray, it would have been obvious to a person having ordinary skill in the art to modify Waugh ’000, Waugh ’569, Coates, and/or Bray or combine one or more of them with any of the other prior art references identified in Defendants’ Invalidity Contentions Cover Pleading that disclose this limitation.
[16D] a screw guide for controlling a direction of the first screw and the second screw that are inserted into the first internal screw guide and the second internal screw guide of the spacer, wherein the screw guide is positioned between the plurality of prongs with distal ends of the prongs extending distally past the screw guide.	Waugh ’000 in view of Waugh ’569 and/or Coates discloses and/or suggests this limitation. For example, as shown in figures 14 and 17 below, Coate’s tool includes a pair of thru-holes 158 provided for alignment with internal screw guides in the spinal implant. Coates at 13:6-9. These thru-holes 158 constitute “a screw guide,” as holes 158 are aligned with the internal screw guides and thus are “for controlling a direction of the first screw and the second screw that are inserted into the first internal screw guide and the second internal screw guide of the spacer.” As shown in figures 14 and 17 below, the thru-holes 158 (“screw guide”) are positioned between the small hooks 161 (“plurality of prongs”) with distal ends of the small hooks 161 distally past the thru-holes 158, as claimed.

Claims	Exemplary Citations to Prior Art
	Fig. 14 Screw Guide (Between Prongs) First and Second Gripper Prongs (Distally Past Screw Guide) Fig. 17 Screw Guide (Between Prongs) First and Second Gripper Prongs (Distally Past Screw Guide) Coates at Figs. 14, 17 (both annotated). A POSITA working with a Waugh '000 implant would have been motivated either to modify Coates' tool to work with the Waugh '000 implant or, more preferably, to add the screw guides of Coates' tool to the Waugh '569 tool for use with the Waugh '000 implant. This is because Waugh '000 suggests, but does not describe a way to, use minimally invasive instruments to insert the implant. Once a POSITA had access to and/or knowledge of the tool of Waugh '569, he or she would know that using such a tool makes placement and insertion of the device far easier. This is particularly so for the anterior approach, which is contemplated by both Waugh '000 (Waugh '000 at 11:16-23, 12:21-30) and Waugh '569 (Waugh '569 at [0056]), and especially if the POSITA wanted to maintain a small incision site, which a POSITA would have been motivated to do. That said, Waugh '569 does not solve the problem of remote placement and guidance of screws. A POSITA would look to known relevant art, such as Coates and Bray (discussed in more detail in another chart and incorporated by reference herein), to know that screw guides for that purpose are known and possible, and would thus have been motivated to apply a screw guide to the tool of Waugh '569. Given

Claims	Exemplary Citations to Prior Art
	the central location of both screws in the Waugh '000 implant, the square structure of the tool of Waugh '569 would be well suited to also include screw guides, centrally located and in opposing directions, as shown below. (An alternate version, as motivated by Bray, would include longer tubes for those guides.) A POSITA, especially one familiar with known art such as Coates and Bray, would be motivated to include such screw guides in the Waugh '569 tool and would have a reasonable expectation of success in doing so. As shown below, in the proposed combination, the screw guide would be “positioned between the plurality of prongs with distal ends of the prongs extending distally past the screw guide.”  Waugh '000 at Fig. 6 (with elements added, including a depiction of Waugh '569 at Fig. 6). These modifications would have constituted: (1) combining prior art elements according to known methods to yield predictable results; (2) simple substitution of one known element for another to obtain predictable results; (3) use of known techniques to improve similar devices in the same way; and (4) applying a known technique to a known device ready for improvement to yield predictable results; and (5) choosing from a finite number of identified, predictable solutions, with a reasonable expectation of success. Bray also discloses this limitation. <i>See, e.g.:</i>

Claims	Exemplary Citations to Prior Art
	 FIG. 13 Bray at Fig. 13 (annotated). “When the handle 320 is properly engaged with the base member 20, a pair of guide tubes 330 is properly lined up with corresponding bone screw holes 140. The surgeon then inserts a drill or center punch (not shown) through one of the guide tubes 330 to drill a hole in the bone, through the screw hole 140. Then, after removing the drill, the surgeon inserts a bone screw 50 held at the end of a suitable driver (not shown) through the guide tube 330, and screws it into the bone. The process is repeated until the desired number of screws are placed, leaving the base member secured to the bone via the first bone screw holes 140. Or since the first guide tool 310 includes two guide tubes 330, the bone screws 50 can be inserted at substantially the same time.” <i>Id</i> at 11:27-47. As discussed above, Blain also teaches screw trajectory guides, and it would have been obvious to use a Blain-like tool (or a Blain combo tool) with the Waugh '000 implant. These modifications would have constituted: (1) combining prior art elements according to known methods to yield predictable results; (2) simple substitution of one known element for another to obtain predictable results; (3) use of known techniques to improve similar devices in the same way; and (4) applying a known technique to a known device ready for improvement to yield predictable results; and (5) choosing from a finite number of identified, predictable solutions, with a reasonable expectation of success.

Claims	Exemplary Citations to Prior Art
	 Blain at Fig. 2A. Accordingly, Waugh '000 in view of Waugh '569 and/or Coates and/or Bray and/or Blain discloses and/or suggests limitation [16D]. To the extent Moskowitz argues this limitation is not disclosed or rendered obvious by Waugh '000 in view of Waugh '569 and/or Coates and/or Bray and/or Blain, it would have been obvious to a person having

Claims	Exemplary Citations to Prior Art
	ordinary skill in the art to modify Waugh '000, Waugh '569, Coates, Bray, and/or Blain or combine one or more of them with any of the other prior art references identified in Defendants' Invalidity Contentions Cover Pleading that disclose this limitation.
Claim 17	
[17] The apparatus of claim 1, and wherein the screw locking mechanism comprises titanium.	Waugh '000 discloses or renders obvious claim 1. <i>See</i> [1A]-[1K]. Waugh '000 further discloses, suggests, or renders obvious “wherein the screw locking mechanism comprises titanium,” alone or in combination with Waugh '569 and/or Waugh '607, the applications for which were filed on the same day as Waugh '000 and which Waugh '000 incorporates by reference. Waugh '000, including the embodiment depicted in Figures 6 through 8, is directed to an interbody spacer device having two different portions. Waugh '000 acknowledges that “[c]onventional interbody spacers are formed of a biocompatible metal, such as titanium.” Waugh '000 at 1:23-29. However, Waugh '000 acknowledges that “titanium interbody spacers are rigid and provide little cushioning,” which can “[i]n extreme situations ... cause [] subsidence.” <i>Id.</i> To address this problem, Waugh proposes a “composite interbody spacer” of two materials. <i>Id.</i> at 1:36-44. The goal of that “composite interbody spacer” is to provide the rigidity of traditional spacers where such rigidity is beneficial, while providing a less rigid material for the areas where that spacer makes direct contact with the bearing endplates of the vertebrae: The implantable device 100 is configured to interface with the bearing endplates of the vertebrae 14, 16. To maximize compatibility, it may be formed of a material having properties not unlike those of natural bone or the natural intervertebral discs. This provides some level of compressibility and formability during impact loads, thereby decreasing the chance of subsidence and other undesired consequences. However, an implantable device formed entirely of materials having properties like those of natural bone or natural intervertebral discs may have some drawbacks. For example, portions of the implantable device may yield when bone anchors are driven into bores formed in the implantable device. This may lead to loosening of the implantable device over time. One approach to address loosening around the bone anchors is to form the implantable device of a rigid material, such as a metal material. However, metal materials may not have properties that favorably interface with the bearing endplates of the vertebrae. The implantable device disclosed herein includes a weight bearing spacer that supports a patient, but also includes anchor bores that are resistant to yielding and deformation.

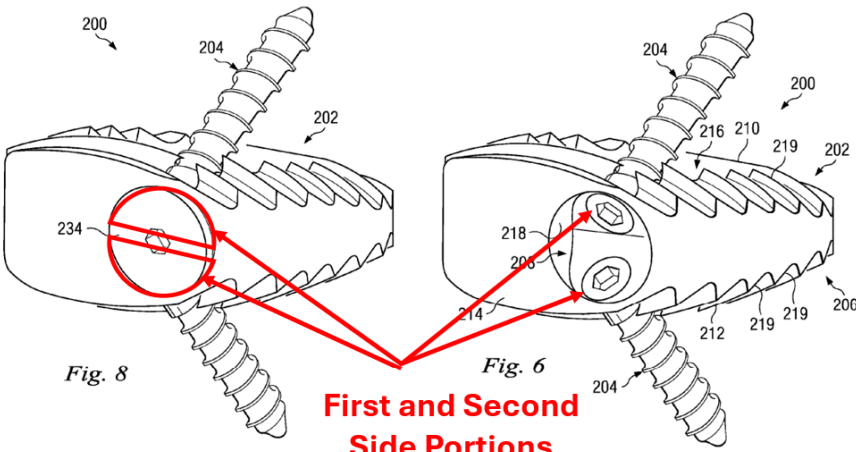
Claims	Exemplary Citations to Prior Art
	<i>Id.</i> at 3:53-4:6. The embodiment in Figures 6 through 8 includes “a first portion 206 formed of a relatively less rigid material and a second portion 208 formed of a relatively more rigid material.” <i>Id.</i> at 6:61-7:3. “The first and second portions 206, 208 may be formed of the same or similar materials to the first and second portions described above with reference to FIGS. 3-5.” <i>Id.</i> Titanium is specifically described as a candidate for both the first and second portions with reference to FIGS 3-5, <i>see id.</i> at 4:39-5:4, and a POSITA would have understood it as a good option for the “relatively more rigid material” of the second portion 208. With respect to Figures 6 through 8, Waugh '000 describes that the second portion is designed to have bores that interface with the bone anchors 204. <i>Id.</i> at 7:21-34, 7:54-64. The locking mechanism, in turn, interacts with both the bone anchors and the second portion. <i>Id.</i> at 7:65-8:9. In light of this disclosure, a POSITA would have understood that the locking mechanism is titanium like the second portion and the bone anchors, because those are the aspects of the device that are desired to be rigid and avoid loosening of the implantable device (as opposed to the other portions that are desired to be less rigid because they interface with the bearing endplates of the vertebrae). Similarly, a POSITA would understand that all three of these rigid aspects of the device—the second portion containing the screw bore holes, the screws, and the locking mechanism—should be the same material. For example, a POSITA would have known that mixing materials, especially metals, would have been disadvantageous and discouraged in implant design because it can cause galvanic corrosion. Galvanic corrosion is undesirable in implant design as it can lead to implant failure, tissue reactions, or loosening. Thus, a POSITA would have understood that in Waugh '000, if the implant is made of titanium, then locking mechanism should also be made from titanium. This is particularly so in light of the disclosures of Waugh '569 and Waugh '607, both of which have locking mechanisms that are specifically incorporated by reference into Waugh '000, and both of which describe a locking mechanism made of titanium. <i>See</i> Waugh '569 at [0037] (disclosing face plate made of titanium), Waugh '607 at 4:38-52. For the foregoing reasons, Waugh '000, alone or in combination with Waugh '569 and/or Waugh '607, discloses and/or suggests this claim limitation.

Claims	Exemplary Citations to Prior Art
	To the extent Moskowitz argues this limitation is not disclosed or rendered obvious by Waugh '000, alone or in combination with Waugh '569 and/or Waugh '607, it would have been obvious to a person having ordinary skill in the art to modify Waugh '000, Waugh '569, and/or Waugh '607 or combine it with any of the other prior art references identified in Defendants' Invalidity Contentions Cover Pleading that disclose this limitation.
Claim 19	
[19A] An intervertebral combination internal screw guide and fixation apparatus configured to be inserted into a disc space between a first vertebral body and a second vertebral body and to provide fusion of the first vertebral body to the second vertebral body via biological bone fusion and screw fusion, the apparatus comprising:	One or more of the three Waugh references discussed herein discloses this limitation for at least the same reasons as those given above as to claim limitation [1A]. To the extent Moskowitz argues this limitation is not disclosed or rendered obvious by the references discussed herein, it would have been obvious to a person having ordinary skill in the art to modify or combine them with any of the other prior art references identified in Defendants' Invalidity Contentions Cover Pleading that disclose this limitation.
[19B] an intervertebral spacer including a top wall, a bottom wall, and first and second sidewalls, wherein the intervertebral spacer defines: an open space between the top, bottom, first, and second sidewalls capable of receiving bone filling for biological bone fusion,	One or more of the three Waugh references discussed herein discloses this limitation for at least the same reasons as those given above as to claim limitation [1B]. To the extent Moskowitz argues this limitation is not disclosed or rendered obvious by the references discussed herein, it would have been obvious to a person having ordinary skill in the art to modify or combine them with any of the other prior art references identified in Defendants' Invalidity Contentions Cover Pleading that disclose this limitation.
[19C] a first slot on a first outer side of the first sidewall,	One or more of the three Waugh references discussed herein discloses this limitation for at least the same reasons as those given above as to claim limitation [1C].

Claims	Exemplary Citations to Prior Art
	To the extent Moskowitz argues this limitation is not disclosed or rendered obvious by the references discussed herein, it would have been obvious to a person having ordinary skill in the art to modify or combine them with any of the other prior art references identified in Defendants' Invalidity Contentions Cover Pleading that disclose this limitation.
[19D] a second slot on a second outer side of the second sidewall of the two sidewalls, wherein the second slot is positioned opposite of the first slot, wherein the first slot is positioned along a first centerline axis that bisects the first side wall and wherein the second slot is positioned along a second centerline axis that bisects the second side wall,	One or more of the three Waugh references discussed herein discloses this limitation for at least the same reasons as those given above as to claim limitation [1D]. To the extent Moskowitz argues this limitation is not disclosed or rendered obvious by the references discussed herein, it would have been obvious to a person having ordinary skill in the art to modify or combine them with any of the other prior art references identified in Defendants' Invalidity Contentions Cover Pleading that disclose this limitation.
[19E] a first internal screw guide having a first entry opening and a first exit opening, the first entry opening of the first internal screw guide formed at least partially in a top surface of the top wall and the first exit opening formed at least partially in a bottom surface of the top wall and at least partially in a first side surface of the top wall,	One or more of the three Waugh references discussed herein discloses this limitation for at least the same reasons as those given above as to claim limitation [1E]. To the extent Moskowitz argues this limitation is not disclosed or rendered obvious by the references discussed herein, it would have been obvious to a person having ordinary skill in the art to modify or combine them with any of the other prior art references identified in Defendants' Invalidity Contentions Cover Pleading that disclose this limitation.
[19F] a second internal screw guide having a second entry opening and a second exit opening, the second entry opening of the	One or more of the three Waugh references discussed herein discloses this limitation for at least the same reasons as those given above as to claim limitation [1F].

Claims	Exemplary Citations to Prior Art
second internal screw guide formed at least partially in the top surface of the top wall and the second exit opening formed at least partially in the bottom surface of the top wall and at least partially in a second side surface of the top wall so as to extend in a direction different than that of the first internal screw guide,	To the extent Moskowitz argues this limitation is not disclosed or rendered obvious by the references discussed herein, it would have been obvious to a person having ordinary skill in the art to modify or combine them with any of the other prior art references identified in Defendants' Invalidity Contentions Cover Pleading that disclose this limitation.
[19G] an indentation in the top surface of the top wall extending between at least a portion of the first internal screw guide and the second internal screw guide, and	One or more of the three Waugh references discussed herein discloses this limitation for at least the same reasons as those given above as to claim limitation [1G]. To the extent Moskowitz argues this limitation is not disclosed or rendered obvious by the references discussed herein, it would have been obvious to a person having ordinary skill in the art to modify or combine them with any of the other prior art references identified in Defendants' Invalidity Contentions Cover Pleading that disclose this limitation.
[19H] a hole extending into the top wall at an angle that is perpendicular to the top surface of the top wall and at a position that is located in the indentation between the first internal screw guide and the second internal screw guide,	One or more of the three Waugh references discussed herein discloses this limitation for at least the same reasons as those given above as to claim limitation [1H]. To the extent Moskowitz argues this limitation is not disclosed or rendered obvious by the references discussed herein, it would have been obvious to a person having ordinary skill in the art to modify or combine them with any of the other prior art references identified in Defendants' Invalidity Contentions Cover Pleading that disclose this limitation.
[19I] a first screw having a first screw head and a first threaded body that is sized and configured to be inserted through the first internal screw guide;	One or more of the three Waugh references discussed herein discloses this limitation for at least the same reasons as those given above as to claim limitation [1I]. To the extent Moskowitz argues this limitation is not disclosed or rendered obvious by the references discussed herein, it would have been obvious to a person having ordinary skill in the art to modify or combine

Claims	Exemplary Citations to Prior Art
	them with any of the other prior art references identified in Defendants’ Invalidity Contentions Cover Pleading that disclose this limitation.
[19J] a second screw having a second screw head and a second threaded body that is sized and configured to be inserted through the second internal screw guide; and	One or more of the three Waugh references discussed herein discloses this limitation for at least the same reasons as those given above as to claim limitation [1J]. To the extent Moskowitz argues this limitation is not disclosed or rendered obvious by the references discussed herein, it would have been obvious to a person having ordinary skill in the art to modify or combine them with any of the other prior art references identified in Defendants’ Invalidity Contentions Cover Pleading that disclose this limitation.
[19K] a screw locking mechanism positioned in the indentation of the intervertebral spacer and extending at least partially into the hole,	One or more of the three Waugh references discussed herein discloses this limitation for at least the same reasons as those given above as to claim limitation [1K]. To the extent Moskowitz argues this limitation is not disclosed or rendered obvious by the references discussed herein, it would have been obvious to a person having ordinary skill in the art to modify or combine them with any of the other prior art references identified in Defendants’ Invalidity Contentions Cover Pleading that disclose this limitation.
[19L] wherein the screw locking mechanism has a central portion sized and configured to be inserted in the hole and has first and second side portions extending perpendicular to the hole so as to engage the first and second screws and secure the first and second screws in position when the first and second screws are inserted into the first and second internal screw guides.	Waugh ’000 discloses and/or suggests this limitation. For example, as discussed above, the locking mechanism disclosed for the embodiment pictured in Figures 6 through 8 “is a plate having a threaded post (not shown) configured to be driven into a corresponding receiving hole ...” Waugh ’000 at 7:67-8:3; <i>see also id.</i> at Figs. 6, 8. The “threaded post” is a “central portion sized and configured to be inserted in the hole.” As discussed above with respect to claim limitation [1H], while the threaded post is not pictured, a POSITA would understand that the best and most logical place to put a threaded post on the plate of locking mechanism would be in the center of that plate, sticking out of that plate in a manner similar to that of a brass thumb tack, to allow that circular plate to be screwed symmetrically along the axis of the threaded post (which is also the axis of the hexagonal hole pictured in the plate, <i>see id.</i> at Fig. 8, which a POSITA would have understood was for screwing the plate in). In this configuration of the threaded post and plate, the plate has “first and second side portions extending perpendicular to the hole so as to engage the first and second screws and secure the first and second screws in position when the first and second screws are inserted into the first and second internal screw guides.” This can be seen in a comparison between Figures 6 and 8.

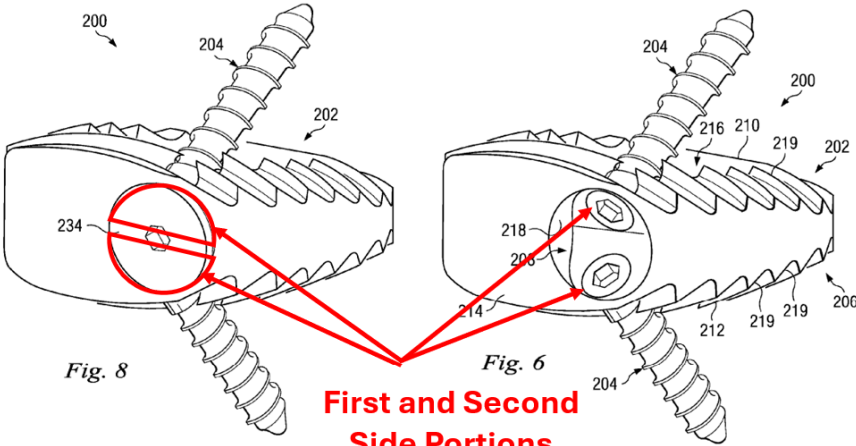
Claims	Exemplary Citations to Prior Art
	 First and Second Side Portions Covering First and Second Screws Waugh '000 at Figs. 6, 8 (annotated). As pictured, these side portions sit on top of, and thus engage, the screws to secure them into position when those screws are inserted in the screw guides. Indeed, Waugh '000 discloses that the locking mechanism is “to inhibit screw back-out.” <i>Id.</i> at 7:65-8:3. The only way a locking mechanism of the form described and pictured for the embodiment of Figures 6 through 8 could “inhibit screw back-out” is by physically touching the tops of the screws (i.e., “engag[ing]” those screws) to stop backward movement. Thus, Waugh '000 discloses or suggests this claim limitation. To the extent Moskowitz argues this limitation is not disclosed or rendered obvious by Waugh '000, it would have been obvious to a person having ordinary skill in the art to modify Waugh '000 or combine it with any of the other prior art references identified in Defendants’ Invalidity Contentions Cover Pleading that disclose this limitation.
Claim 20	

Claims	Exemplary Citations to Prior Art
[20A] An intervertebral combination internal screw guide and fixation apparatus configured to be inserted into a disc space between a first vertebral body and a second vertebral body and to provide fusion of the first vertebral body to the second vertebral body via biological bone fusion and screw fusion, the apparatus comprising:	One or more of the three Waugh references discussed herein discloses this limitation for at least the same reasons as those given above as to claim limitation [1A]. To the extent Moskowitz argues this limitation is not disclosed or rendered obvious by the references discussed herein, it would have been obvious to a person having ordinary skill in the art to modify or combine them with any of the other prior art references identified in Defendants' Invalidity Contentions Cover Pleading that disclose this limitation.
[20B] an intervertebral spacer including a top wall, a bottom wall, and first and second sidewalls, wherein the intervertebral spacer defines: an open space between the top, bottom, first, and second sidewalls capable of receiving bone filling for biological bone fusion,	One or more of the three Waugh references discussed herein discloses this limitation for at least the same reasons as those given above as to claim limitation [1B]. To the extent Moskowitz argues this limitation is not disclosed or rendered obvious by the references discussed herein, it would have been obvious to a person having ordinary skill in the art to modify or combine them with any of the other prior art references identified in Defendants' Invalidity Contentions Cover Pleading that disclose this limitation.
[20C] a first slot on a first outer side of the first sidewall,	One or more of the three Waugh references discussed herein discloses this limitation for at least the same reasons as those given above as to claim limitation [1C]. To the extent Moskowitz argues this limitation is not disclosed or rendered obvious by the references discussed herein, it would have been obvious to a person having ordinary skill in the art to modify or combine them with any of the other prior art references identified in Defendants' Invalidity Contentions Cover Pleading that disclose this limitation.
[20D] a second slot on a second outer side of the second sidewall of the two sidewalls, wherein the	One or more of the three Waugh references discussed herein discloses this limitation for at least the same reasons as those given above as to claim limitation [1D].

Claims	Exemplary Citations to Prior Art
second slot is positioned opposite of the first slot, wherein the first slot is positioned along a first centerline axis that bisects the first side wall and wherein the second slot is positioned along a second centerline axis that bisects the second side wall,	To the extent Moskowitz argues this limitation is not disclosed or rendered obvious by the references discussed herein, it would have been obvious to a person having ordinary skill in the art to modify or combine them with any of the other prior art references identified in Defendants' Invalidity Contentions Cover Pleading that disclose this limitation.
[20E] a first internal screw guide having a first entry opening and a first exit opening, the first entry opening of the first internal screw guide formed at least partially in a top surface of the top wall and the first exit opening formed at least partially in a bottom surface of the top wall and at least partially in a first side surface of the top wall,	One or more of the three Waugh references discussed herein discloses this limitation for at least the same reasons as those given above as to claim limitation [1E]. To the extent Moskowitz argues this limitation is not disclosed or rendered obvious by the references discussed herein, it would have been obvious to a person having ordinary skill in the art to modify or combine them with any of the other prior art references identified in Defendants' Invalidity Contentions Cover Pleading that disclose this limitation.
[20F] a second internal screw guide having a second entry opening and a second exit opening, the second entry opening of the second internal screw guide formed at least partially in the top surface of the top wall and the second exit opening formed at least partially in the bottom surface of the top wall and at least partially in a second side surface of the top wall so as to	One or more of the three Waugh references discussed herein discloses this limitation for at least the same reasons as those given above as to claim limitation [1F]. To the extent Moskowitz argues this limitation is not disclosed or rendered obvious by the references discussed herein, it would have been obvious to a person having ordinary skill in the art to modify or combine them with any of the other prior art references identified in Defendants' Invalidity Contentions Cover Pleading that disclose this limitation.

Claims	Exemplary Citations to Prior Art
extend in a direction different than that of the first internal screw guide,	
[20G] an indentation in the top surface of the top wall extending between at least a portion of the first internal screw guide and the second internal screw guide, and	One or more of the three Waugh references discussed herein discloses this limitation for at least the same reasons as those given above as to claim limitation [1G]. To the extent Moskowitz argues this limitation is not disclosed or rendered obvious by the references discussed herein, it would have been obvious to a person having ordinary skill in the art to modify or combine them with any of the other prior art references identified in Defendants' Invalidity Contentions Cover Pleading that disclose this limitation.
[20H] a hole extending into the top wall at an angle that is perpendicular to the top surface of the top wall and at a position that is located in the indentation between the first internal screw guide and the second internal screw guide,	One or more of the three Waugh references discussed herein discloses this limitation for at least the same reasons as those given above as to claim limitation [1H]. To the extent Moskowitz argues this limitation is not disclosed or rendered obvious by the references discussed herein, it would have been obvious to a person having ordinary skill in the art to modify or combine them with any of the other prior art references identified in Defendants' Invalidity Contentions Cover Pleading that disclose this limitation.
[20I] a first screw having a first screw head and a first threaded body that is sized and configured to be inserted through the first internal screw guide;	One or more of the three Waugh references discussed herein discloses this limitation for at least the same reasons as those given above as to claim limitation [1I]. To the extent Moskowitz argues this limitation is not disclosed or rendered obvious by the references discussed herein, it would have been obvious to a person having ordinary skill in the art to modify or combine them with any of the other prior art references identified in Defendants' Invalidity Contentions Cover Pleading that disclose this limitation.
[20J] a second screw having a second screw head and a second threaded body that is sized and configured to be inserted through the second internal	One or more of the three Waugh references discussed herein discloses this limitation for at least the same reasons as those given above as to claim limitation [1J]. To the extent Moskowitz argues this limitation is not disclosed or rendered obvious by the references discussed herein, it would have been obvious to a person having ordinary skill in the art to modify or combine

Claims	Exemplary Citations to Prior Art
screw guide; and	them with any of the other prior art references identified in Defendants’ Invalidity Contentions Cover Pleading that disclose this limitation.
[20K] a screw locking mechanism positioned in the indentation of the intervertebral spacer and extending at least partially into the hole,	One or more of the three Waugh references discussed herein discloses this limitation for at least the same reasons as those given above as to claim limitation [1K]. To the extent Moskowitz argues this limitation is not disclosed or rendered obvious by the references discussed herein, it would have been obvious to a person having ordinary skill in the art to modify or combine them with any of the other prior art references identified in Defendants’ Invalidity Contentions Cover Pleading that disclose this limitation.
[20L] wherein the screw locking mechanism comprises a first curved portion extending toward the first internal screw guide in engaging contact with the first screw when the first screw is inserted in the first internal screw guide and a second curved portion extending toward the second internal screw guide in engaging contact with the second screw when the second screw is inserted in the second internal screw guide.	Waugh ’000 discloses this limitation for reasons similar to those given above for claim 2 and limitation [19L]. In Figure 8, the locking mechanism is depicted as having first and second curved portions that extend over the first and second screws. In so doing, those curved portions extend toward the first and second screw guides, in which those screws are located (and which are also pictured in Figure 7 as 226 and 228). As further set forth above with respect to claim limitation [19L], a POSITA would understand that the plate-shaped screw locking mechanism is “in engaging contact” with the screws, because it could not otherwise serve its stated purpose of inhibiting screw back-out. <i>See</i> Waugh ’000 at 7:65-8:5.

Claims	Exemplary Citations to Prior Art
	 First and Second Side Portions Covering First and Second Screws Waugh '000 at Figs. 6, 8 (annotated). For the foregoing reasons, Waugh '000 discloses and/or suggests this claim limitation. To the extent Moskowitz argues this limitation is not disclosed or rendered obvious by Waugh '000, it would have been obvious to a person having ordinary skill in the art to modify Waugh '000 or combine it with any of the other prior art references identified in Defendants' Invalidity Contentions Cover Pleading that disclose this limitation.