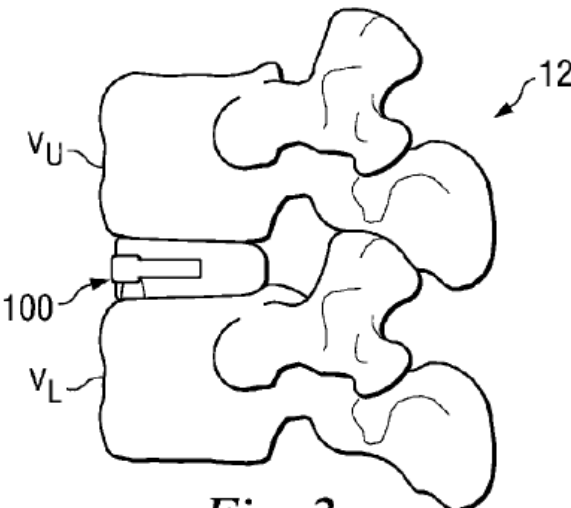
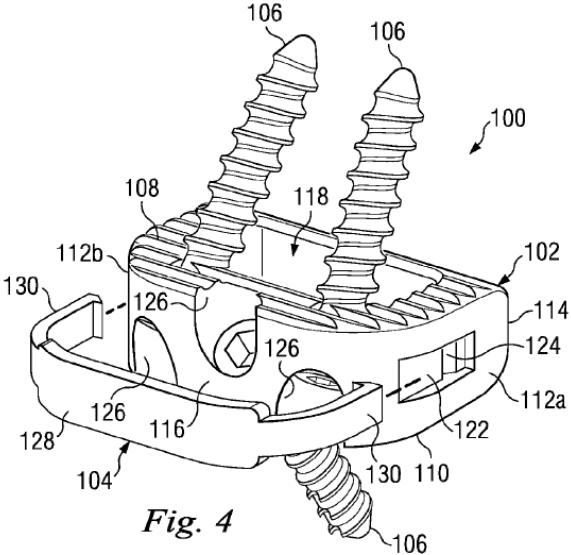


Exhibit D1 – Invalidity of U.S. Patent No. 10,064,738 in view of Waugh

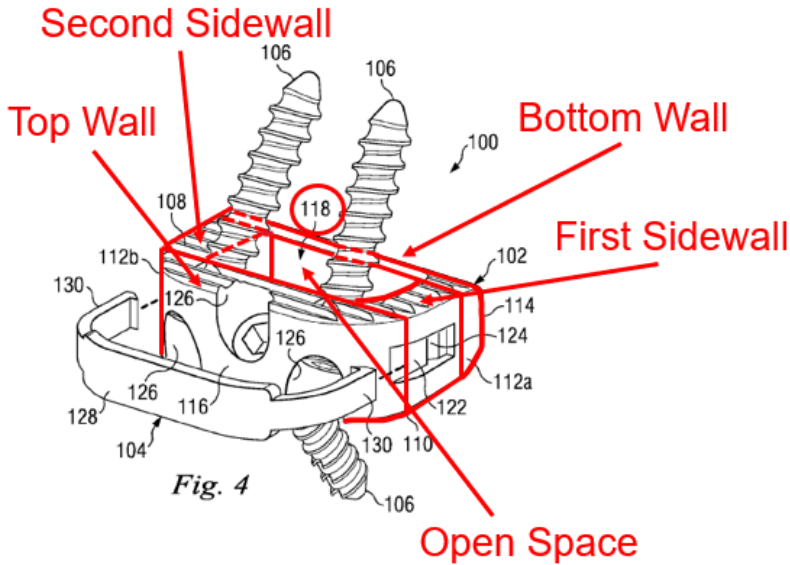
U.S. Patent Application Publication No. 2008/0249569 to Waugh *et al.* (“Waugh”), alone or in combination with other prior art identified in the cover pleading and/or discussed below, anticipates or renders claims 1-7, 9-12, 22, 24-25, 28 and 30-33 obvious. Moskowitz has claimed a March 6, 2009 priority date for the ’738 Patent. Waugh was filed on April 3, 2007, and published on October 9, 2008. Thus, Waugh is prior art under at least pre-AIA 35 U.S.C. § 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.

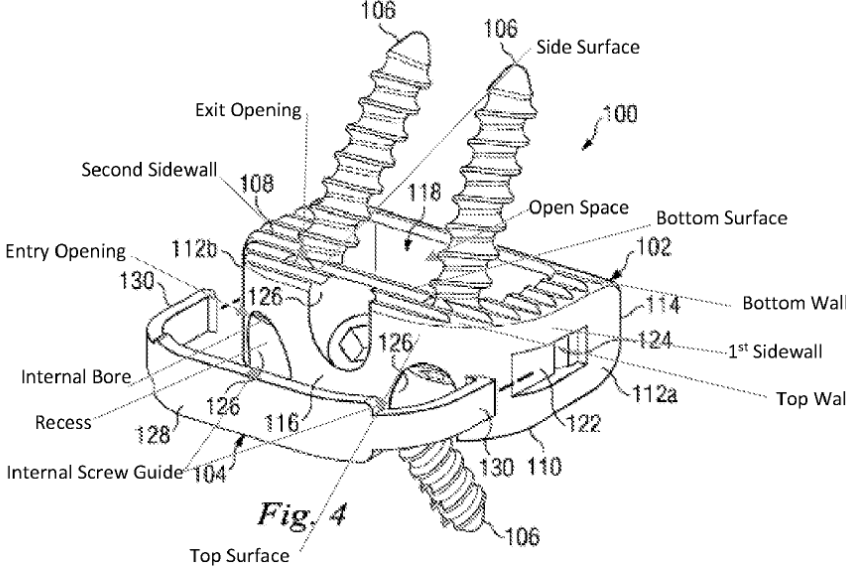
Asserted Claim	Prior Art
Claim 1	
[1A] A intervertebral combination internal screw guide and fixation apparatus configured to be inserted into a disc space between a first vertebral body and a second vertebral body and to provide fusion of the first vertebral body to the second vertebral body via biological bone fusion and screw fusion, the apparatus comprising:	Waugh discloses or renders obvious this limitation. Waugh’s discloses “implantable members” 102, 202, 302, 402 that are “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.”  <i>Fig. 2</i>

Asserted Claim	Prior Art
	<i>Id.</i> at Fig. 2. Waugh discloses the “implant member” or spacer designed for insertion between adjacent vertebrae following removal of a degenerative disc, to secure and maintain the proper relative positioning of the vertebrae. <i>See, e.g.</i>, Waugh ¶ [0002]-[0006], [0027]. Waugh teaches that “[t]he spacers may be implanted between the vertebrae 14, 16 using any common approach, including an anterior approach, a posterior approach, a posterior transforaminal approach, a far lateral approach, a direct lateral approach, among others.” <i>Id.</i> ¶ [0056]. As shown in figure 4 below, Waugh’s “implantable device 100” includes “an implant member 102, a face plate 104, and anchor members 106.” <i>Id.</i> ¶ [0028]. The “anchor members 106,” (i.e., screws), “extend through the anchor member apertures 126 in the front surface 116 and upper and lower surfaces 108, 110 and out the hollow center 118 and into the bearing endplates of the vertebrae 14, 16,” thereby securing the implant entirely within the disc space. <i>Id.</i> ¶ [0030].

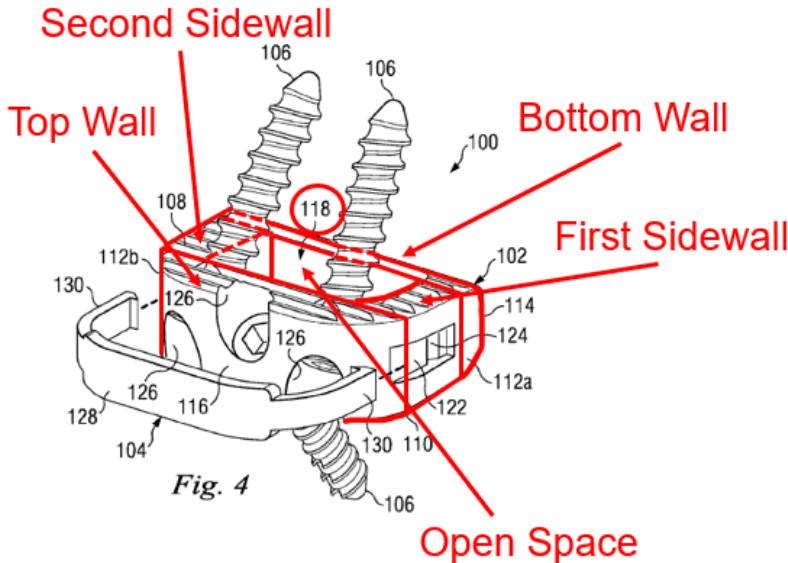
Asserted Claim	Prior Art
	 <i>Fig. 4</i> <i>Id.</i> at Fig. 4; <i>see also id.</i> at Figs. 2-3, 7, 9, 12-14. Waugh's "hollow center 118 may allow placement of bone growth materials, such as allograft to promote bonding and fusion of the implantable device 100 to the adjacent vertebrae." <i>Id.</i> ¶ [0028]; <i>see also id.</i> ¶ [0062] ("In some circumstances, it is advantageous to pack all or a portion of the hollow center of the implant member with a suitable osteogenetic material or therapeutic composition."). Waugh's implant is thus "[a] 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[.]" To the extent Moskowitz contends the preamble is not limiting, Waugh does not need to teach it.

Asserted Claim	Prior Art
	To the extent Moskowitz argues this limitation is not disclosed or rendered obvious by Waugh, it would have been obvious to a person having ordinary skill in the art to modify Waugh or combine it with any of the other prior art references identified in Defendants’ Invalidity Contentions Cover Pleading that disclose this limitation.
[1B] an intervertebral cage including: a top wall, a bottom wall, and two sidewalls defining an open space capable of receiving bone filling for the biological bone fusion;	Waugh discloses or renders obvious this limitation. As discussed above for [1A], Waugh discloses an “implant member” 102 or spacer designed for insertion between adjacent vertebrae following removal of a degenerative disc, to secure and maintain the proper relative positioning of the vertebrae. <i>See, e.g.</i>, Waugh ¶ [0002]-[0006], [0027]. Waugh thus discloses “an intervertebral cage[.]” Waugh’s implant member 102 has “an upper surface 108, a lower surface 110, side surfaces, 112a-b, a rear surface 114 and a front surface 116.” <i>Id.</i> ¶ [0028], Fig. 4 (reproduced below). Moreover, Waugh’s implant has a hollow center 118. <i>See id.</i> The portion of Waugh’s implant member 102 located above the hollow center 118 corresponds to “top wall” whereas the portion located below corresponds to the “bottom wall.” <i>See id.</i> The portions of the implant to the left and right of the hollow center 118 and between the top wall and the bottom wall correspond to the “two sidewalls[.]” <i>See id.</i>

Asserted Claim	Prior Art
	 <i>Id.</i> at Fig. 4 (annotated). A POSITA would have understood that the bottom wall is bound by the rear surface 114, as well as portions of the upper surface 108, the lower surface 110, and the side surfaces 112a-b. A POSITA would have also understood that the first and second sidewalls are bound by portions of the upper surface 108, the lower surface 110, and the side surfaces 112a-b. The Office’s characterization of Waugh during prosecution of U.S. Patent No. 11,903,849 (“the ’849 Patent”), which is a continuation of the ’293 Patent, further confirms that Waugh discloses “a top wall, a bottom wall, and two sidewalls[.]” According to the Office, Waugh discloses “an intervertebral implant . . . comprising: a top wall . . . a bottom wall opposite the top wall; a first sidewall; a second sidewall opposite the first sidewall . . .” ’849 Patent Prosecution, September 21,

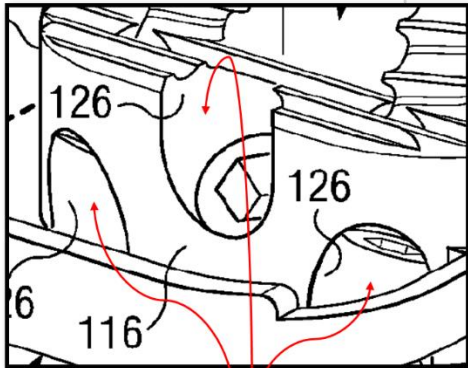
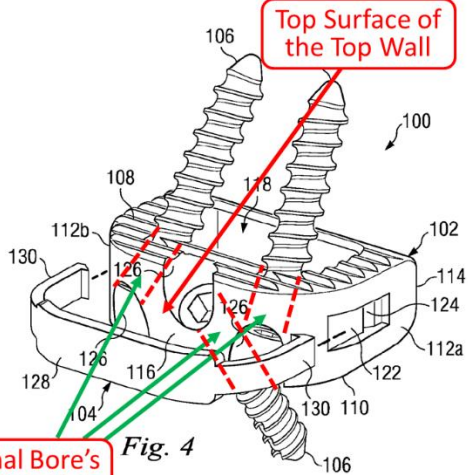
Asserted Claim	Prior Art
	2022 Office Action at 7.¹ The Office provided the following annotated figure, marking the top wall, bottom wall, first sidewall, and second sidewall in Waugh. <i>See id.</i> at 8 (excerpt below):  <i>Id.</i> Waugh’s implant has a hollow center 118 that allows for the “placement of bone growth materials, such as allograft to promote bonding and fusion of the implantable device 100 to the adjacent vertebrae.” Waugh ¶ [0028]. Moreover, as shown in figure 4 (reproduced below), the hollow center 118 is bound by the top wall, bottom wall, and two sidewalls. Waugh thus discloses that the top wall, bottom wall, and two sidewalls “defin[e] an open space capable of receiving bone filling for the biological bone fusion[.]”

¹ Moskowitz did not dispute the Office’s characterization of Waugh. Instead, Moskowitz chose to amend the claim to add a claim limitation that “the intervertebral implant does not include a faceplate to retain the screw in the internal screw guide.” ’849 Patent Prosecution, Reply to September 21, 2022 Office Action at 3, 11-12.

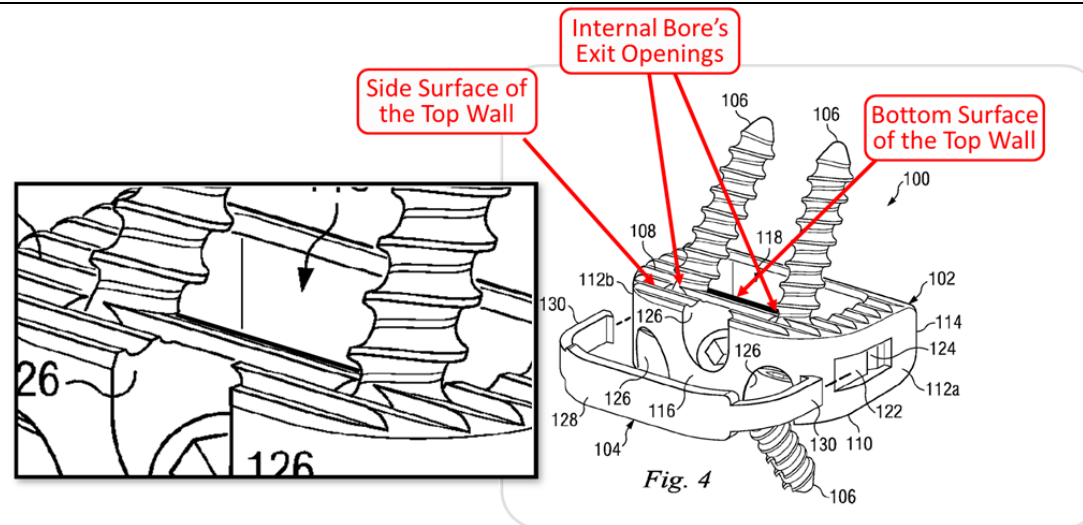
Asserted Claim	Prior Art
	 <i>Id.</i> at Fig. 4 (annotated). To the extent Moskowitz argues this limitation is not disclosed or rendered obvious by Waugh, it would have been obvious to a person having ordinary skill in the art to modify Waugh or combine it with any of the other prior art references identified in Defendants’ Invalidity Contentions Cover Pleading that disclose this limitation.
[1C] an internal screw guide having a screw entrance portion and an internal bore portion, wherein the screw entrance portion is larger than and coaxial with the internal bore and is formed at least	Waugh discloses or renders obvious this limitation. Waugh’s implant has “anchor members 106 [that] extend through the anchor member apertures 126 in the front surface 116 and upper and lower surfaces 108, 110 and out the hollow center 118 and into the bearing endplates of the vertebrae 14, 16.” Waugh ¶ [0030]. As shown in figure 4 (reproduced below), a POSITA would have understood that each passage for the anchor members 106 (<i>i.e.</i>, screws) corresponds to an “internal screw guide,” as they define a fixed path that constrains and guides the trajectory of the screw.

Asserted Claim	Prior Art
partially in the top surface of the top wall as viewed from the top, wherein the internal bore portion has an entry opening formed only in a top surface of the top wall as viewed from the top and has an exit opening formed at least partially in a bottom surface of the top wall and at least partially in a side surface of the top wall;	Internal Screw Guides (Hidden) <i>Fig. 4</i> <i>Id.</i> at Fig. 4 (annotated). The Office’s annotated figure below from prosecution of the ’849 Patent confirms this understanding. See ’849 Patent Prosecution, September 21, 2022 Office Action at 8 (excerpt below). Waugh thus discloses “an internal screw guide[.]”

Asserted Claim	Prior Art
	<i>Id.</i> The “internal bore portion” is the portion of the screw guide that receives the threaded portion of the screw (<i>i.e.</i>, the portion of the screw, which is not the screw head). This is evident from claims 44 and 48 of the '293 patent, which recite “an internal screw guide having an internal bore” and a “counterbore formed at least partially in the top surface of the top wall for accommodating a screw head of a screw” (emphasis added). This implies that the counterbore accommodates the screw head whereas the “internal bore” receives the threaded portion of the screw. Applying this understanding to Waugh’s figure 4 (reproduced below), the top wall in Waugh also has a recess (or counterbore), which is the portion of the screw guide that holds the screw head, and which corresponds to the claimed “screw entrance portion.” There is also necessarily a portion of the screw guide that receives the threaded portion of the screws 106. A POSITA would have understood that portion as the “internal bore.” Given the lack of a top view with the screws removed, the “internal bore” in Waugh is hidden, but it can be extrapolated from the figures. For example, the “exit opening” of this “internal bore” is visible in figure 4. There must also necessarily be an “entry opening” of the

Asserted Claim	Prior Art
	opening” of the “internal bore” inside a recess in the “top wall.” Waugh thus discloses that an “entry opening” of the “internal bore” is “formed only in a top surface of the top wall.”  Recess  Top Surface of the Top Wall Internal Bore's Entry Openings Fig. 4 Waugh at Fig. 4 (annotated). The analysis above is consistent with how Moskowitz alleged infringement for Medtronic’s products.

Asserted Claim	Prior Art
	Moskowitz Infringement Contentions, Exhibit D1 at [1C]. The Office also determined that Waugh has an “entry opening” of the “internal bore” that is formed “only in a top surface of the top wall,” a fact that Moskowitz did not dispute. ’849 Patent Prosecution, September 21, 2022 Office Action at 7 (“Waugh et al. discloses . . . an internal screw guide having an internal bore . . . the entry opening of the internal bore formed only in the top surface of the top wall . . .”). Instead, Moskowitz chose to amend the claim to add a claim limitation that “the intervertebral implant does not include a faceplate to retain the screw in the internal screw guide.” See ’849 Patent Prosecution, Reply to September 21, 2022 Office Action at 3, 11-12. Further, Waugh’s implant has “anchor member 106 [that] extend through the anchor member apertures 126 in the front surface 116 and upper and lower surfaces 108, 110 . . .” Waugh ¶ [0030]. As shown in figure 4 (reproduced below), portions of the upper and lower surface 108, 110 correspond to the “side surface of the top wall,” and the anchor members 106 (<i>i.e.</i>, screws) extend through this side surface of the top wall. Moreover, the “anchor members 106 extend . . . out the hollow center 118 and into the bearing endplates of the vertebrae 14, 16.” <i>Id.</i> For an anchor member 106 (<i>i.e.</i>, a screw) to exit into the hollow center, the exit opening must be formed “at least partially in a bottom surface of the top wall.” This is also evident from figure 4 below.

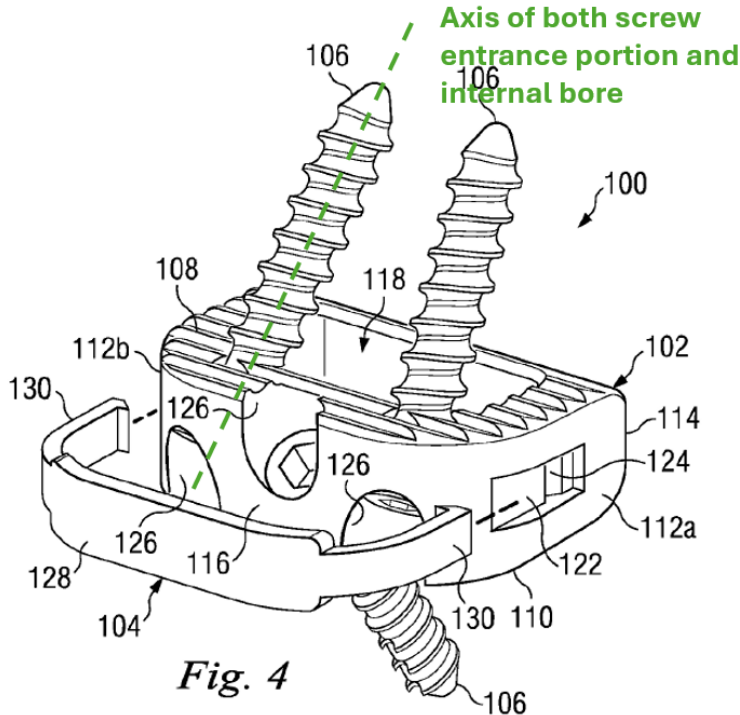


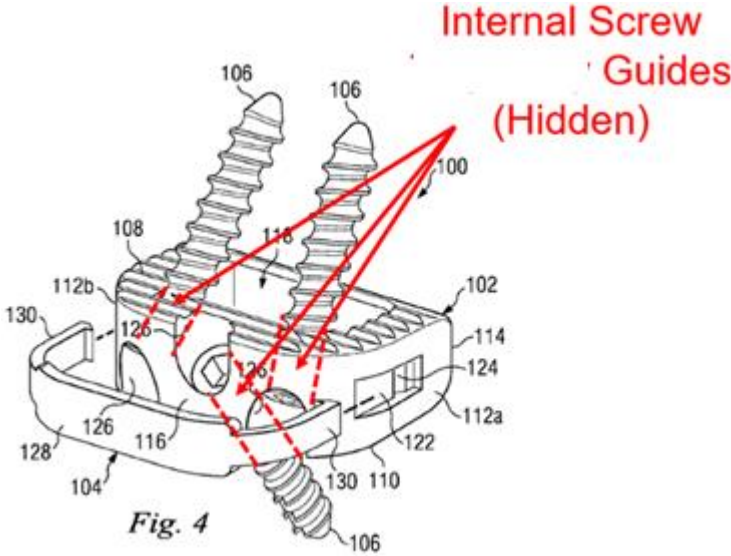
Id. at Fig. 4 (enlarged view, annotated).

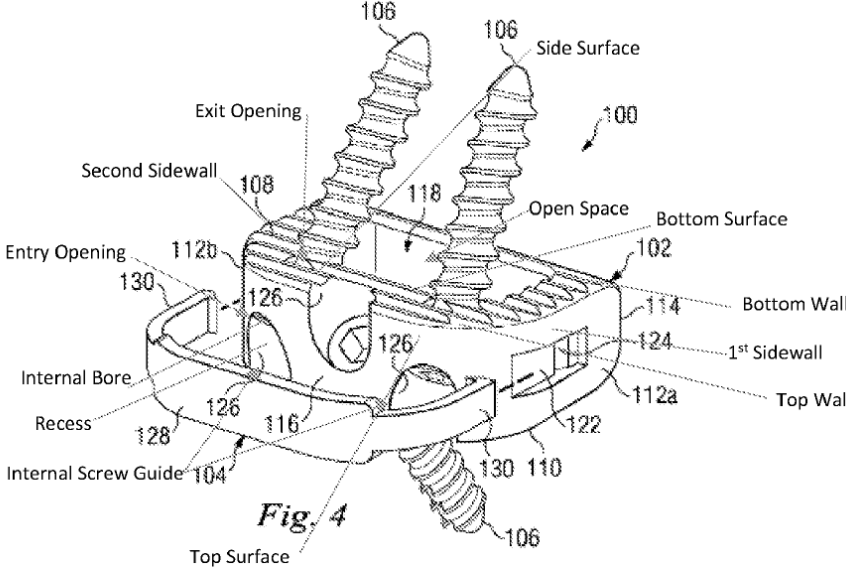
This understanding of Waugh was also confirmed during prosecution of the '849 Patent. According to the Office, Waugh discloses “an internal screw guide having an internal bore . . . the exit opening formed at least partially in the bottom surface of the top wall and at least partially in a side surface of the top wall.” *See* '849 Patent Prosecution, September 21, 2022 Office Action at 7. Again, Moskowitz did not dispute the Office’s characterization of Waugh. Instead, Moskowitz chose to amend the claim to add a claim limitation that “the intervertebral implant does not include a faceplate to retain the screw in the internal screw guide.” *See* '849 Patent Prosecution, Reply to September 21, 2022 Office Action at 3, 11-12.

Waugh thus discloses **“an exit opening formed at least partially in a bottom surface of the top wall and at least partially in a side surface of the top wall.”**

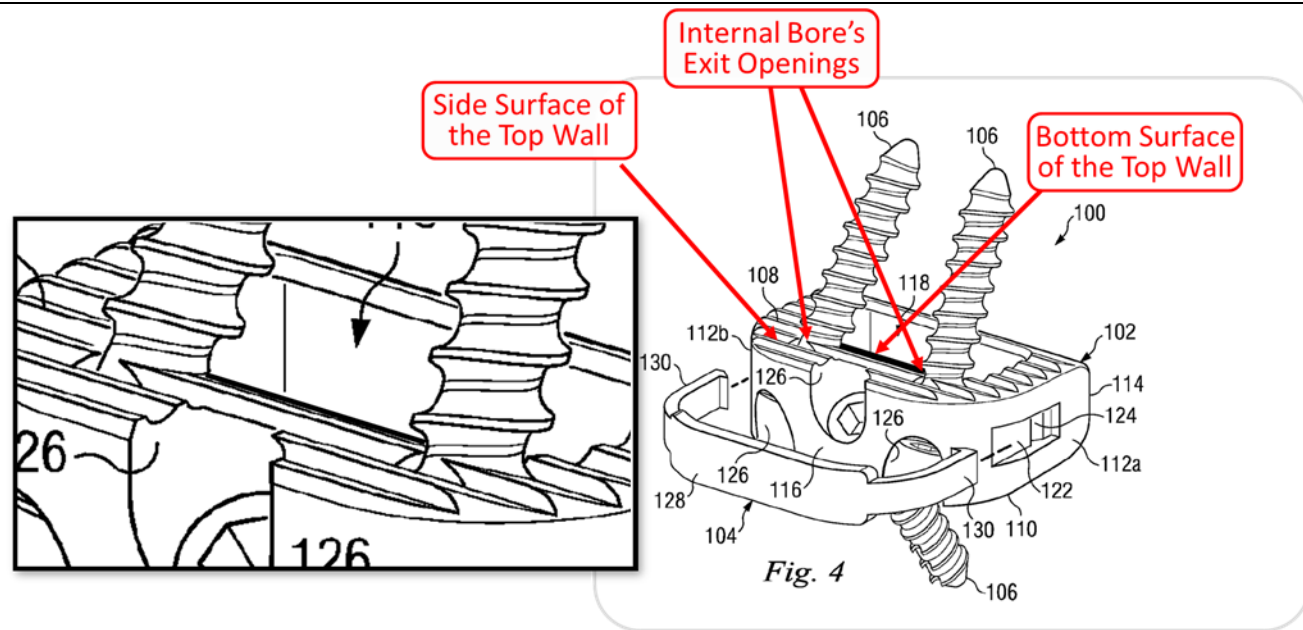
The **“screw entrance portion”** of Waugh’s **“internal screw guide”** has a larger diameter than the diameter of the **“internal bore”** because the **“internal bore”** receives only the threaded portion of the screw, whereas the **“screw entrance portion”** receives the screwhead, which has a larger diameter.

Asserted Claim	Prior Art
	And as shown in the image below, Waugh's "screw entrance portion" and "internal bore" are aligned along a common axis:  Waugh at Fig. 4 annotated. Thus Waugh discloses "wherein the screw entrance portion is larger than and coaxial with the internal bore and is formed at least partially in the top surface of the top wall as viewed from the top."

Asserted Claim	Prior Art
	To the extent Moskowitz argues this limitation is not disclosed or rendered obvious by Waugh, it would have been obvious to a person having ordinary skill in the art to modify Waugh or combine it with any of the other prior art references identified in Defendants' Invalidity Contentions Cover Pleading that disclose this limitation.
[1D] a second internal screw guide having a second screw entrance portion and a second internal bore portion, wherein the second screw entrance portion is larger than and coaxial with the second internal bore and is formed at least partially in the top surface of the top wall as viewed from the top, wherein the second internal bore portion has a second entry opening formed only in the top surface of the top wall as viewed from the top and has a 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, and wherein the internal screw guide and the second internal screw guide are angled to orient a first	Waugh discloses or renders obvious this limitation. Waugh's implant has "anchor members 106 [that] extend through the anchor member apertures 126 in the front surface 116 and upper and lower surfaces 108, 110 and out the hollow center 118 and into the bearing endplates of the vertebrae 14, 16." Waugh ¶ [0030]. As shown in figure 4 (reproduced below), a POSITA would have understood that each passage for the anchor members 106 (<i>i.e.</i>, screws) corresponds to an internal screw guide, with one being "a second internal screw guide," as they define a fixed path that constrains and guides the trajectory of the screw. Since screws pass through each screw guide, they necessarily have a screw entrance portion and an internal bore for accommodating the threaded portion of the screws.  The diagram, labeled Fig. 4, shows a perspective view of a medical device 100. It features two screws, 106, passing through the device. The screws enter through apertures 126 in the front surface 116 and extend through internal screw guides 106. The device has a top wall with surfaces 108, 110, and 112a, and a bottom surface 112b. Other components labeled include 102, 104, 114, 116, 118, 122, 124, 126, 128, and 130. Red arrows indicate the path of the screws through the guides. The text "Internal Screw Guides (Hidden)" is written in red above the diagram.

Asserted Claim	Prior Art
screw member and a second member screw bi-directionally in opposite directions;	<i>Id.</i> at Fig. 4 (annotated). The Office’s annotated figure below from prosecution of the ’849 Patent confirms this understanding. <i>See</i> ’849 Patent Prosecution, September 21, 2022 Office Action at 8 (excerpt below). Waugh thus discloses “a second internal screw guide having a second screw entrance portion and a second internal bore portion[.]”  <i>Id.</i> As can also be seen in the Office’s annotated figure above, Waugh teaches “wherein the second internal bore portion has a second entry opening formed only in the top surface of the top wall as viewed from the top[.]” <i>See also:</i>

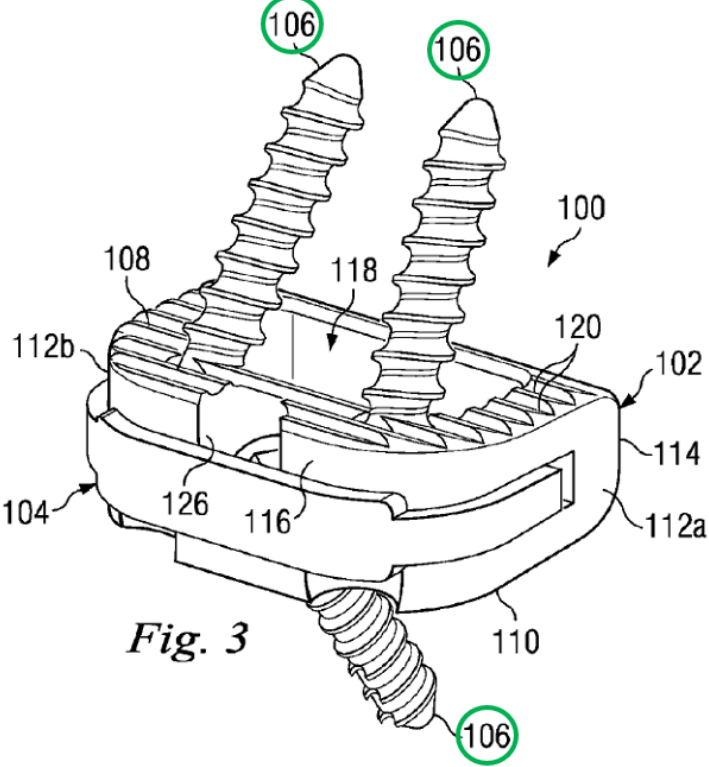
Asserted Claim	Prior Art
	Waugh at Fig. 4 (annotated). Further, Waugh's implant has "anchor member 106 [that] extend through the anchor member apertures 126 in the front surface 116 and upper and lower surfaces 108, 110" Waugh ¶ [0030]. As shown in figure 4 (reproduced below), portions of the upper and lower surface 108, 110 correspond to the "second side surface of the top wall," and the anchor members 106 (<i>i.e.</i>, screws) extend through this side surface of the top wall. Moreover, the "anchor members 106 extend . . . out the hollow center 118 and into the bearing endplates of the vertebrae 14, 16." <i>Id.</i> For an anchor member 106 (<i>i.e.</i>, a screw) to exit into the hollow center, the second exit opening must be formed "at least partially in the bottom surface of the top wall." This is also evident from figure 4 below.

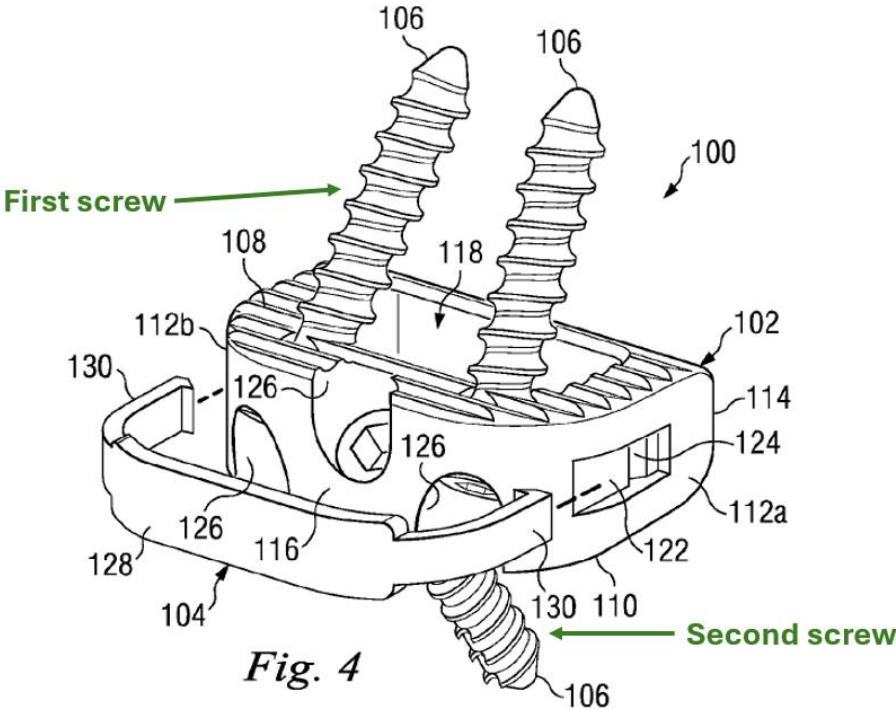


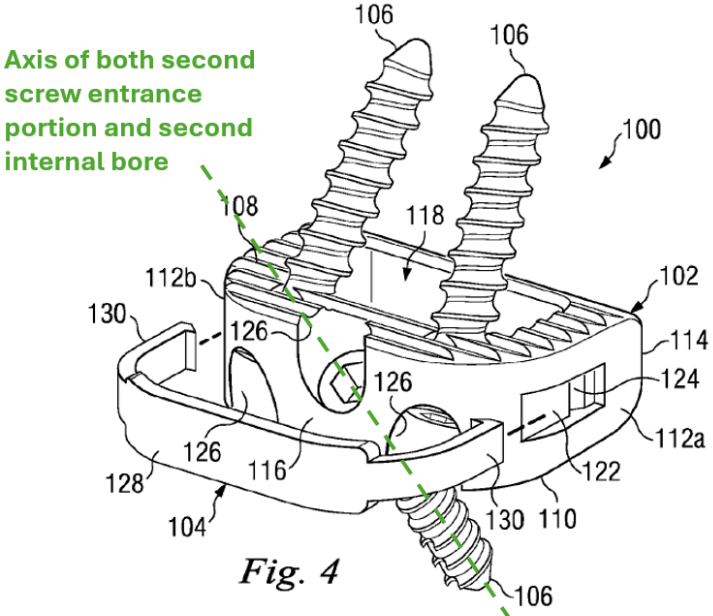
Id. at Fig. 4 (enlarged view, annotated).

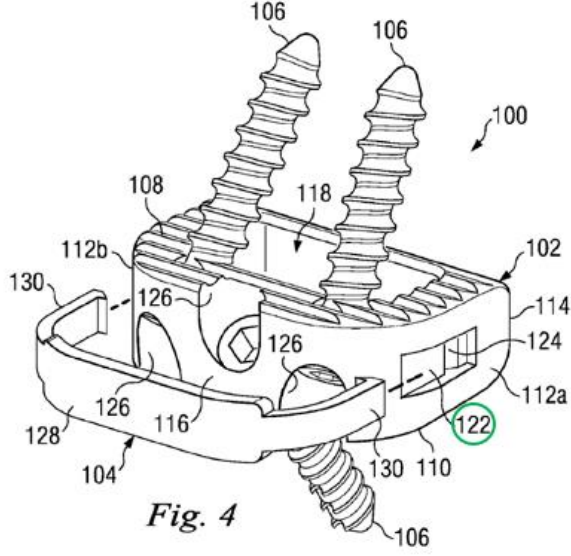
Waugh thus discloses “a second exit opening formed at least partially in the bottom surface of the top wall and at least partially in a second side surface of the top wall.”

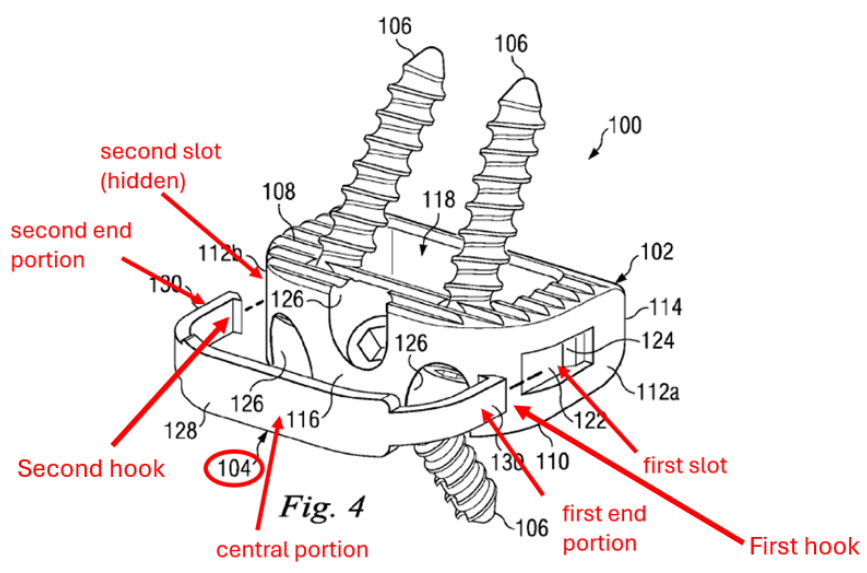
Further, as shown in Figure 3 below, anchor members 106 are orientated bi-directionally, with some one screw pointing generally down and the other two screws pointing generally up:

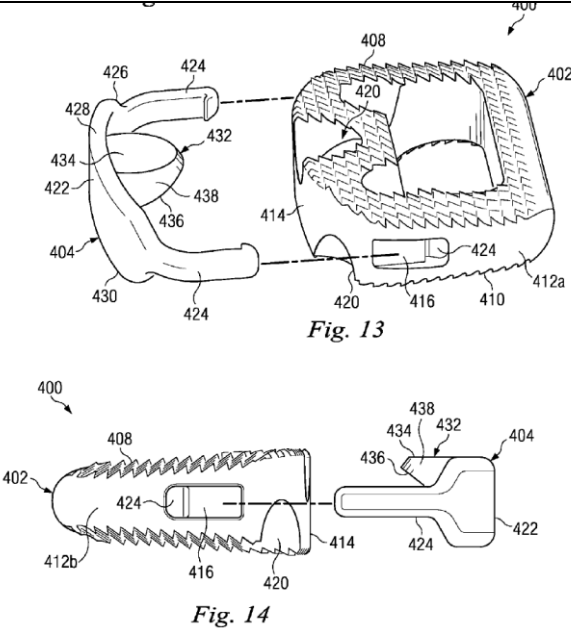
Asserted Claim	Prior Art
	 <i>Id.</i> at Fig. 3 (annotated).

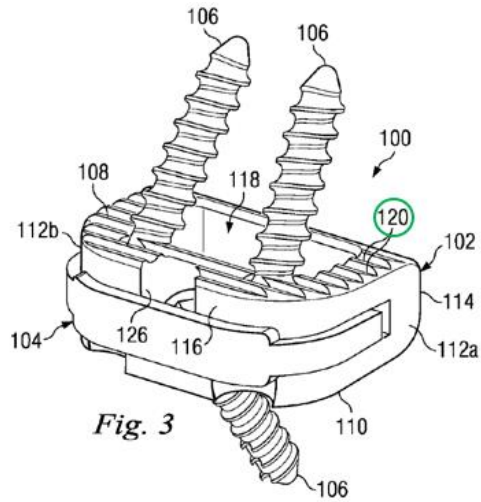
Asserted Claim	Prior Art
	 <i>Id.</i> at Fig. 4 (annotated). Thus Waugh teaches “wherein the internal screw guide and the second internal screw guide are angled to orient a first screw member and a second member screw bi-directionally.” The “second screw entrance portion” of Waugh’s “second internal screw guide” has a larger diameter than the diameter of the “second internal bore” because the “internal bore” receives only the threaded portion of the screw, whereas the “screw entrance portion” receives the screwhead, which has a larger diameter. And as shown in the image below, Waugh’s “second screw entrance portion” and “second internal bore” are aligned along a common axis:

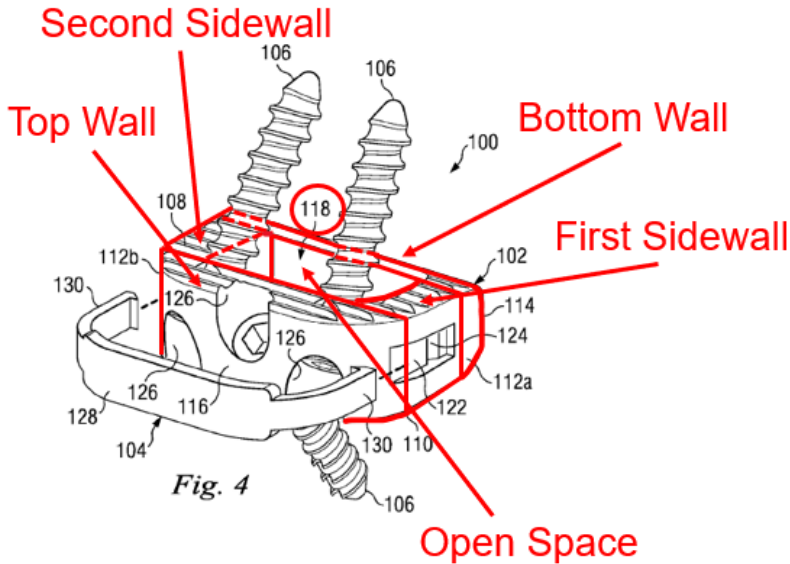
Asserted Claim	Prior Art
	 Waugh at Fig. 4 annotated. Thus Waugh discloses “wherein the second screw entrance portion is larger than and coaxial with the second internal bore and is formed at least partially in the top surface of the top wall as viewed from the top.” To the extent Moskowitz argues this limitation is not disclosed or rendered obvious by Waugh, it would have been obvious to a person having ordinary skill in the art to modify Waugh or combine it with any of the other prior art references identified in Defendants’ Invalidity Contentions Cover Pleading that disclose this limitation.

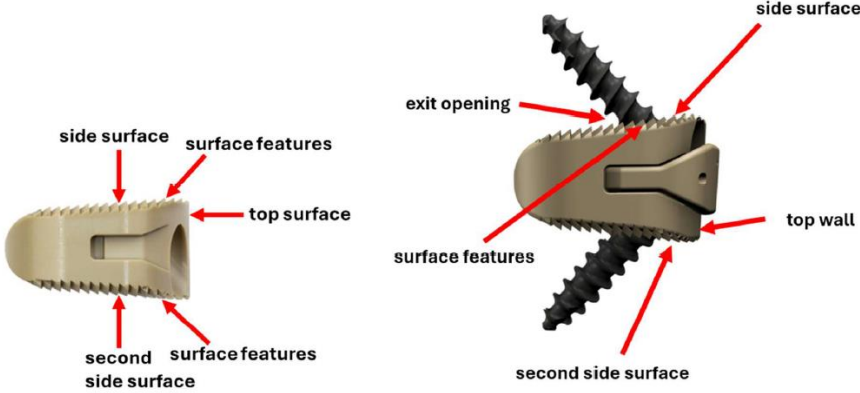
Asserted Claim	Prior Art
[1E] a first slot on a first outer side of a first sidewall of the two sidewalls; a second slot on a second outer side of a second sidewall of the two sidewalls, wherein the second slot is positioned opposite of the first slot; wherein the first slot is positioned along a first centerline axis that bisects the first side wall and is positioned nearer a top of the intervertebral cage than a bottom of the intervertebral cage, wherein the second slot is positioned along a second centerline axis that bisects the second side wall and is positioned nearer the top of the intervertebral cage than the bottom of the intervertebral cage,	Waugh discloses or renders obvious this limitation. Waugh teaches: The side surfaces 112 a-b each include a recessed slot 122 (best seen in FIG. 4) configured to cooperate with an insertion tool (described below) that selectively connects to the implant member 102. Within the slot 122, attachment features, such as connecting impressions 124 (FIG. 4), are configured to provide a secure connection with the faceplate 104. Waugh ¶ [0029]; <i>see also id.</i> ¶ [0033], [0038], [0058] (further discussing slots 122). Waugh's slots 122 are shown, for example, in Fig 4:  <i>Fig. 4</i> <i>Id.</i> at Fig. 4 (annotated). Additionally, Waugh's slots 122 are on the two sidewalls. <i>See:</i>

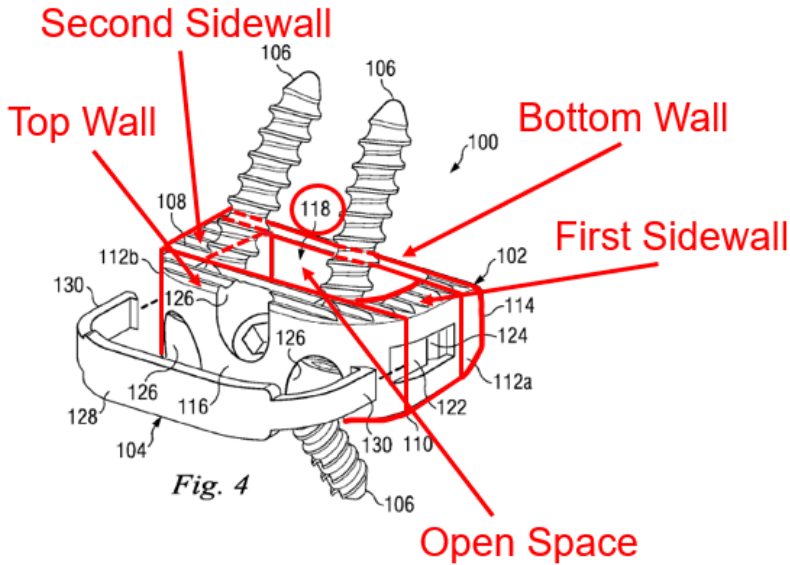
Asserted Claim	Prior Art
	 Fig. 4 (annotated) shows a mechanical assembly 100. The assembly includes two vertical, ribbed components 106. A central portion 104 is indicated by a red circle and label. Other labeled parts include 102, 108, 110, 112a, 112b, 114, 116, 118, 122, 124, 126, 128, 130, and 132. Red annotations with arrows point to specific features: 'second slot (hidden)' points to a slot near 112b; 'second end portion' points to a portion near 130; 'Second hook' points to a hook-like feature near 128; 'central portion' points to the circled 104; 'first slot' points to a slot near 122; 'first end portion' points to a portion near 132; and 'First hook' points to a hook-like feature near 130. The text 'Fig. 4' is centered below the drawing. <i>Id.</i> at Fig. 4 (annotated).

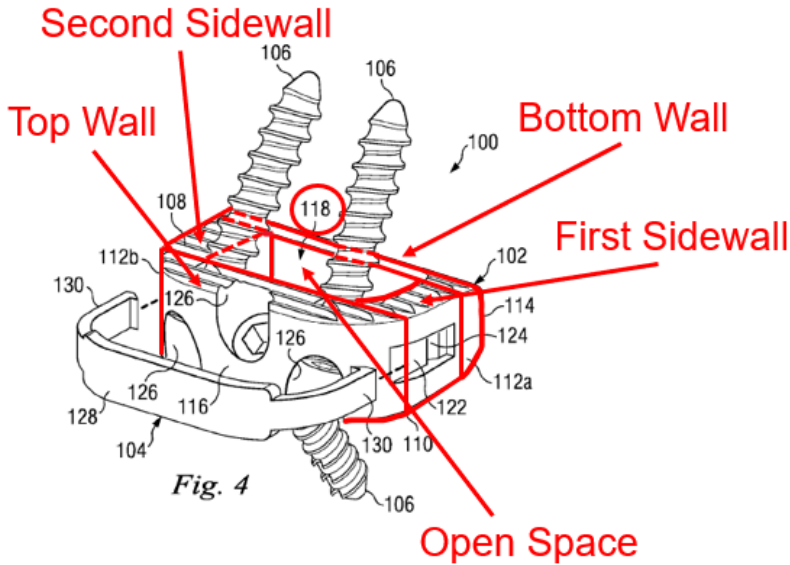
Asserted Claim	Prior Art
	 <i>Fig. 13</i> <i>Fig. 14</i> <i>Id.</i> at Figs. 13-14. Waugh thus teaches “a first slot on a first outer side of a first sidewall of the two sidewalls; a second slot on a second outer side of a second sidewall of the two sidewalls, wherein the second slot is positioned opposite of the first slot.” Further, Waugh teaches “wherein the first slot is positioned along a first centerline axis that bisects the first side wall and is positioned nearer a top of the intervertebral cage than a bottom of the intervertebral cage” and “wherein the second slot is positioned along a second centerline axis that bisects the second side wall and is positioned nearer the top of the intervertebral cage than the bottom of the intervertebral cage.”

Asserted Claim	Prior Art
	To the extent Moskowitz argues this limitation is not disclosed or rendered obvious by Waugh, it would have been obvious to a person having ordinary skill in the art to modify Waugh or combine it with any of the other prior art references identified in Defendants' Invalidity Contentions Cover Pleading that disclose this limitation.
[1F] wherein the side surface and the second side surface of the top wall are patterned with a plurality of surface features to create rough side surfaces, wherein at least some of the plurality of surface features are positioned on the side surface between the top wall and the exit opening, and	Waugh discloses or renders obvious this limitation. Waugh teaches: the upper and lower surfaces 108, 110 include bone engaging features 120 configured to reduce slipping or movement of the implant member 102 relative to the vertebrae 14, 16. In the exemplary embodiment shown, the bone engaging features 120 are angled teeth that permit introduction into the disc space, but also restrict removal. These may be any other known bone engaging features, including protrusions and keels, among others. Waugh ¶ [0029]. These bone engaging features are shown, for example, in Figure 3:  <i>Fig. 3</i>

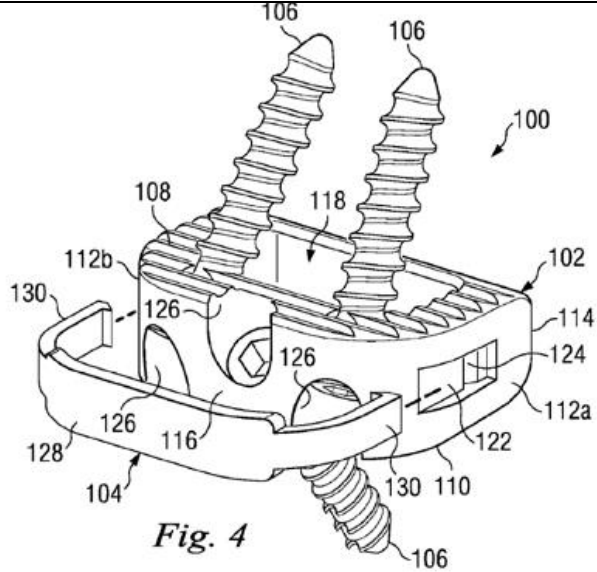
Asserted Claim	Prior Art
	<i>Id.</i> at Fig. 3 (annotated); <i>see also id.</i> at Figs. 7, 9, 12-14. As shown in the image above, some of these bone engaging features 120 are patterned and positioned on the side surface and second side surface of the top wall between the top surface of the top wall and the exit opening. <i>See:</i>  <i>Id.</i> at Fig. 4 (annotated).

Asserted Claim	Prior Art
	 To the extent Moskowitz argues this limitation is not disclosed or rendered obvious by Waugh, it would have been obvious to a person having ordinary skill in the art to modify Waugh or combine it with any of the other prior art references identified in Defendants' Invalidity Contentions Cover Pleading that disclose this limitation.
[1G] wherein the top wall, the bottom wall, and the sidewalls are integrally formed and the open space for receiving bone graft material extends continuously from an inner surface of the first sidewall to an inner surface of the second sidewall and extends continuously from an inner surface of the top wall to an inner surface of the bottom wall;	Waugh discloses or renders obvious this limitation. Waugh's implant member 102 has "an upper surface 108, a lower surface 110, side surfaces, 112a-b, a rear surface 114 and a front surface 116." <i>Id.</i> ¶ [0028], Fig. 4 (reproduced below). Moreover, Waugh's implant has a hollow center 118. <i>See id.</i> Consistent with the interpretation in Moskowitz's infringement contentions, <i>see</i> Moskowitz Infringement Contentions, Ex. D1 at [1G], the portion of the implant member 102 located above the hollow center 118 corresponds to "top wall" whereas the portion located below corresponds to the "bottom wall." <i>See id.</i> The portions of the implant to the left and right of the hollow center 118 and between the top wall and the bottom wall correspond to the "a first sidewall and a second sidewall[" <i>See id.</i>

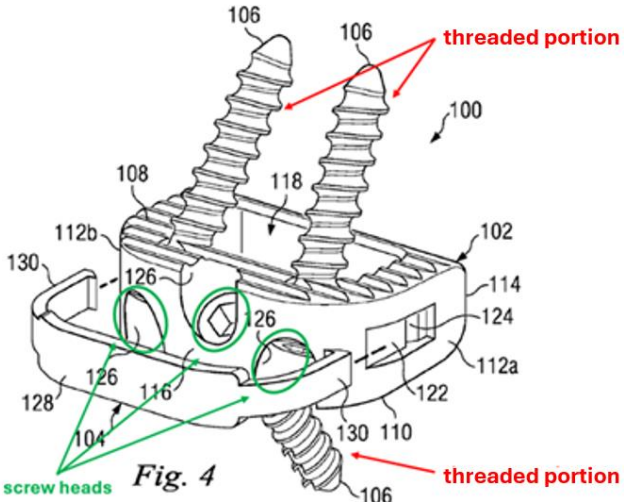
Asserted Claim	Prior Art
	 <i>Fig. 4</i> <i>Id.</i> at Fig. 4 (annotated). Each of the top wall, the bottom wall, and the sidewalls are shown as being constructed of a single, continuous piece. Thus, Waugh teaches “wherein the top wall, the bottom wall, and the sidewalls are integrally formed.” Further, Waugh’s implant has a hollow center 118 that allows for the “placement of bone growth materials, such as allograft to promote bonding and fusion of the implantable device 100 to the adjacent vertebrae.” Waugh ¶ [0028]. Moreover, as shown in figure 4 (reproduced below), the hollow center 118 is bound by the top wall, bottom wall, and two sidewalls. Waugh thus discloses “the open space for receiving bone graft material extends continuously from an inner surface of the first sidewall to an inner surface of the second sidewall and extends continuously from an inner surface of the top wall to an inner surface of the bottom wall[.]”

Asserted Claim	Prior Art
	 <i>Fig. 4</i> <i>Id.</i> at Fig. 4 (annotated). To the extent Moskowitz argues this limitation is not disclosed or rendered obvious by Waugh, it would have been obvious to a person having ordinary skill in the art to modify Waugh or combine it with any of the other prior art references identified in Defendants’ Invalidity Contentions Cover Pleading that disclose this limitation.
[1H] a first screw having a first screw head and a first screw threaded portion, wherein the first screw is sized to be positioned in the internal screw guide with the first screw head in the screw entrance portion;	Waugh discloses or renders obvious this limitation. As discussed above for [1C] and [1D], Waugh’s implant has “anchor members 106 [that] extend through the anchor member apertures 126 in the front surface 116 and upper and lower surfaces 108, 110” Waugh ¶ [0030]; <i>see also</i> [1C], [1D]. As shown in Waugh’s figures, these anchor members are screws that have a screw threaded portion and a screw head. <i>See, e.g.:</i>

Asserted Claim	Prior Art
	<i>Id.</i> at Fig. 4 (annotated); <i>see also id.</i> at Figs. 3, 7. Further, a POSITA would know that screws contain screw heads and threaded bodies. Waugh further teaches that “In [an] exemplary embodiment, the implant member 102 includes three apertures 126—two angled to allow anchor members 106 to attach to an upper vertebral endplate and one angled to allow an anchor member 106 to attach to a lower vertebral endplate.” <i>Id.</i> Waugh thus teaches that the each screw is sized to be positioned in an internal screw guide with the screw head in a respective screw entrance portion. <i>See, e.g., Figure 4:</i>

Asserted Claim	Prior Art
	 Fig. 4 Waugh at Fig. 4, <i>see also id.</i> at Figs. 3, 7. More particularly, the “first screw” is placed in the first “internal screw guide” identified above, with “the first screw [] sized to be positioned in the internal screw guide with the first screw head in the screw entrance portion.” To the extent Moskowitz argues this limitation is not disclosed or rendered obvious by Waugh, it would have been obvious to a person having ordinary skill in the art to modify Waugh or combine it with any of the other prior art references identified in Defendants’ Invalidity Contentions Cover Pleading that disclose this limitation.
[1I] a second screw having a second screw head and a second screw threaded portion, wherein the second screw is sized to be	Waugh discloses or renders obvious this limitation. As discussed above, including ¶ [1H], Waugh teaches anchor members 106 that are “sized and configured to be inserted through the” screw guides. <i>See</i> [1H]; <i>See also, e.g.:</i>

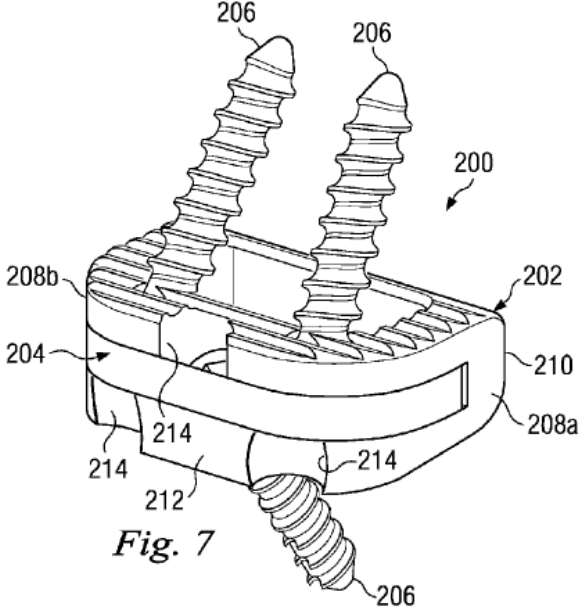
Asserted Claim	Prior Art
positioned in the second internal screw guide with the second screw head in the second screw entrance portion; and	<i>Fig. 3</i> <i>Id.</i> at Fig. 3 (annotated); <i>id.</i> ¶ [0030] (“The anchor members 106 extend through the anchor member apertures 126 in the front surface 116 and upper and lower surfaces 108, 110 and out the hollow center 118 and into the bearing endplates of the vertebrae 14, 16, thereby securely locating the implant member 102 entirely within the disc space.”). Anchor members 106 each have a “screw head” and “threaded body[.]” <i>See, e.g.:</i>

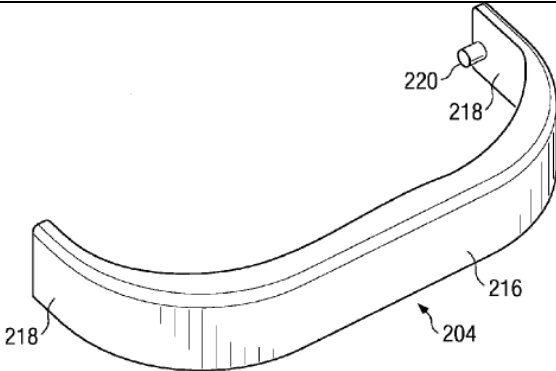
Asserted Claim	Prior Art
	

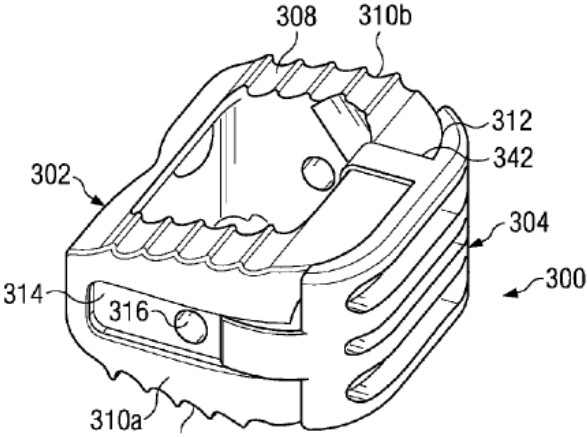
Asserted Claim	Prior Art
	with any of the other prior art references identified in Defendants’ Invalidity Contentions Cover Pleading that disclose this limitation.
[1J] a screw locking bracket having a first end portion sized and positioned to be inserted in the first slot, a second end portion sized and positioned to be inserted in the second slot and a central portion extending between the first end portion and the second end portion, wherein when the screw locking bracket is connected to the intervertebral cage with the first end portion in the first slot and the second end portion in the second slot, the central portion partially blocks the screw entrance portion and the second screw entrance portion so as to retain the first and second screws in the internal screw guide and the second internal screw guide while leaving at least a portion of the screw entrance portion and the second screw entrance	Waugh discloses or renders obvious this limitation. Waugh teaches a “faceplate 104” (screw locking bracket) that has end portions sized and positioned to be inserted in slots on either side of the intervertebral cage of Waugh and a central portion that at least partially covers the screw entrance portions to retain the screws. For example, Waugh teaches: The side surfaces 112 a-b each include a recessed slot 122 (best seen in FIG. 4) configured to cooperate with an insertion tool (described below) that selectively connects to the implant member 102. Within the slot 122, attachment features, such as connecting impressions 124 (FIG. 4), are configured to provide a secure connection with the faceplate 104. Waugh ¶ [0029]; <i>see also id.</i> ¶ [0058]. The relevant structures are shown in the Figures, including in Fig. 4:

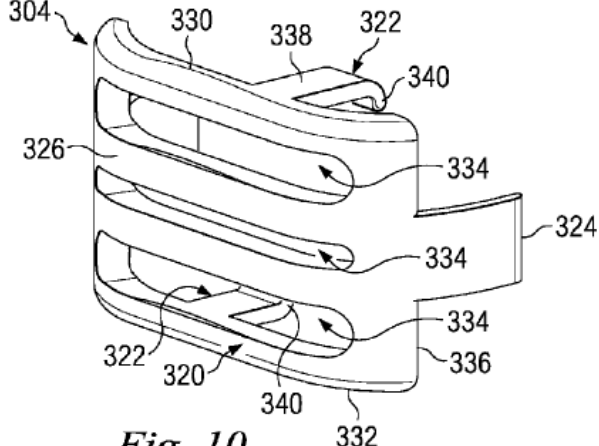
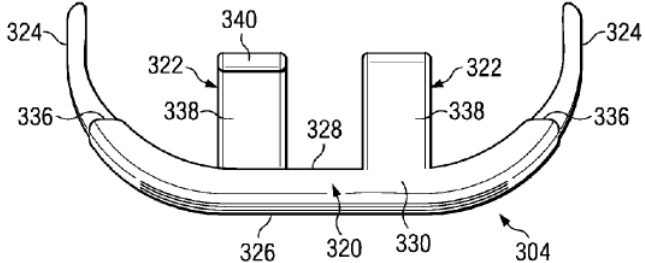
Asserted Claim	Prior Art
portion at least partially exposed.	Fig. 4 <i>Id.</i> at Fig. 4 annotated; <i>see also id.</i> at Fig. 3. Waugh teaches that the purpose of faceplate 104 is to extend across “at least a portion” of the screw entrance portions of the screws and to restrain the screws from backing out: To reduce the chance of the anchor members 106 backing out of the vertebral bodies over time and causing the implant member 102 to become loose, the face plate 104 is configured to extend across at least a portion of the anchor member apertures 126 and physically block anchor member back-out. <i>Id.</i> ¶ [0031].

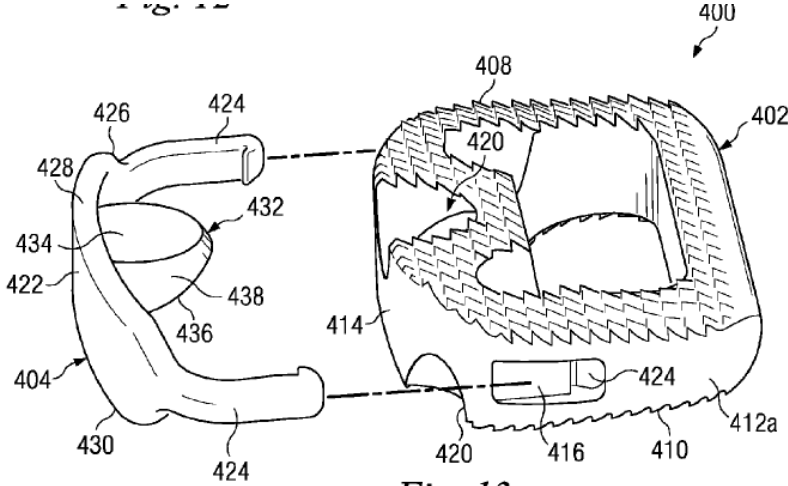
Asserted Claim	Prior Art
	Waugh's faceplate has a "main body 128" (central portion) that partially blocks the screw entrance portion and the second screw entrance portion so as to retain the first and second screws in the internal screw guide and the second internal screw guide while leaving at least a portion of the screw entrance portion and the second screw entrance portion at least partially exposed. <i>See, e.g.:</i> The exemplary face plate 104 shown in these figures includes a main body 128 and locking features that cooperate with the implant member 102 to secure the main body 128 in place over the anchor member apertures 126. <i>Id.</i> ¶ [0031]. In addition, Waugh teaches other embodiments that functions in essentially the same way as the embodiment shown in Fig. 4, but the faceplate is designed to sit flush within a recess in the intervertebral cage. FIG. 7 shows another exemplary embodiment of an implantable device, referenced herein by the numeral 200. The implantable device 200 may include an implant member 202, a faceplate 204, and anchor members 206. The implant member 202, the faceplate 204, and the anchor members 206 may include any or all of the features of the other embodiments described herein, and to reduce repetition, many of these features will not re-discussed with respect to the implantable device 200. <i>Id.</i> ¶ [0041]. In this embodiment however, the side surfaces 208 a-b and the front surface 212 include a recess formed therein (shown with faceplate 204 located therein) sized to receive the faceplate 204 so that the faceplate 204 sits flush with one of or all of the side surfaces 208 a-b and the front surface 212. As with the other

Asserted Claim	Prior Art
	embodiments, the faceplate 204 overlaps the anchor member apertures 214 and inhibits anchor member back-out. <i>Id.</i> ¶ [0042]. The faceplate of this embodiment of Waugh is also shown to be slightly thinner, such that it covers less of the screw entrance portions:  <i>Fig. 7</i> <i>Id.</i> at Fig. 7.

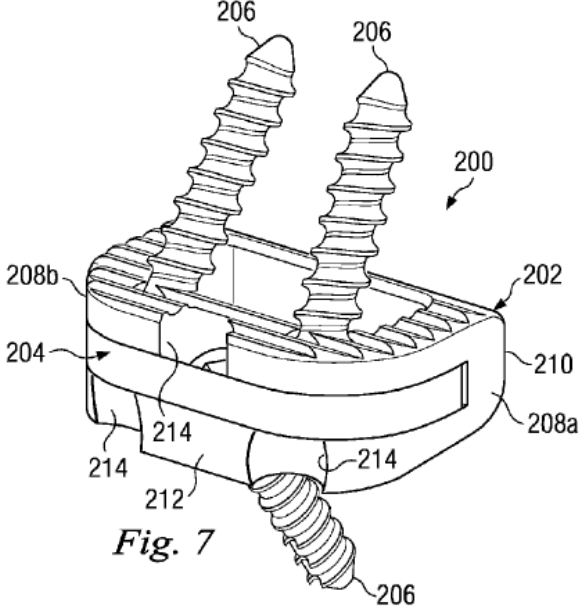
Asserted Claim	Prior Art
	 <i>Fig. 8</i> <i>Id.</i> at Fig. 8. Further, Waugh teaches yet another embodiment that functions in essentially the same way as the previous embodiments but also includes “viewing ports” that allow operating physicians to view at least a portion of the previously inserted screws. For example, in discussing the embodiment of Fig. 9, Waugh teaches: FIG. 9 shows another exemplary embodiment of an implantable device, referenced herein by the numeral 300. The implantable device 300 may include an implant member 302, a faceplate 304, and anchor members (not shown). The implant member 302, the faceplate 304, and the anchor members may include any or all of the features of the other embodiments described herein, and to reduce repetition, many of these features will not re-discussed with respect to the implantable device 300. <i>Id.</i> ¶ [0044]. Waugh goes on to teach that the faceplate 304 of this embodiment has a “first end portion” and a “second end portion” that interact with a “first slot” and “second slot” on either side of the cage like in the previous embodiment:

Asserted Claim	Prior Art
	The face plate 304 is shown in FIGS. 10 and 11 and includes a main body 320, locking tabs 322, and securing tabs 324. The main body 320 includes a front surface 326, an interfacing surface 328, and respective top and bottom surfaces 330, 332. In the exemplary embodiment shown, the main body 320 includes viewing ports 334 that here are formed of slots extending across the main body 320. These viewing ports 334 allow an operating physician to view the previously inserted anchor members through the faceplate 304. The interfacing surface 328 lies against the front surface 312 of the implant member 302 and deters the anchor members from backing out by physically blocking them. The face plate 304 connects to the implant member 302 using, in this exemplary embodiment, the securing tabs 324 and locking tabs 322. <i>Id.</i> ¶ [0046].  Fig. 9

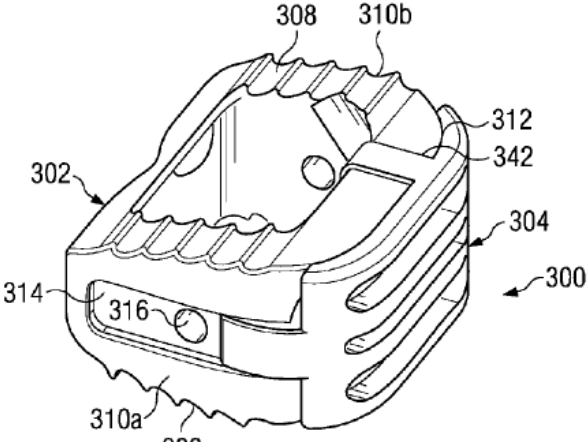
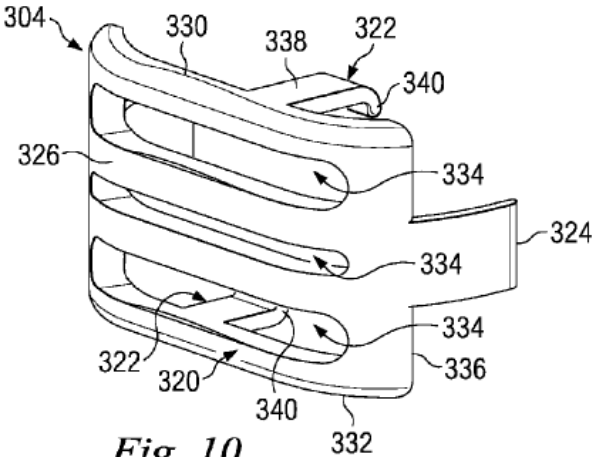
Asserted Claim	Prior Art
	<i>Id.</i> at Fig. 9.  Fig. 10 <i>Id.</i> at Fig. 10.  Fig. 11 <i>Id.</i> at Fig. 11.

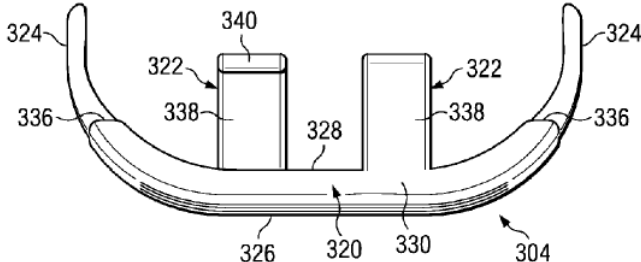
Asserted Claim	Prior Art
	Waugh teaches yet another embodiment (see Figs. 12-14) that functions essentially the same way as the others, but which also includes protuberances 432 that are sized and shaped to lie flat against or flush with the screws: The projecting protuberances 432 are sized and shaped to at least partially penetrate into the anchor member apertures 420 and fit adjacent the anchor members. In some exemplary embodiments, the projecting protuberances 432 lie flat against or flush with the anchor members to substantially eliminate anchor member back-out. In these exemplary embodiments, the anchor members are held more tightly in place, and their movement is more limited than in the prior embodiments. <i>Id.</i> ¶ [0051].  <i>Fig. 13</i> <i>Id.</i> at Fig. 13; <i>see also</i> Figs. 12, 14.

Asserted Claim	Prior Art
	In all of these embodiments, Waugh therefore teaches “a screw locking bracket having a first end portion sized and positioned to be inserted in the first slot, a second end portion sized and positioned to be inserted in the second slot and a central portion extending between the first end portion and the second end portion[.]” Waugh further teaches “wherein when the screw locking bracket is connected to the intervertebral cage with the first end portion in the first slot and the second end portion in the second slot, the central portion partially blocks the screw entrance portion and the second screw entrance portion so as to retain the first and second screws in the internal screw guide and the second internal screw guide while leaving at least a portion of the screw entrance portion and the second screw entrance portion at least partially exposed.” To the extent Moskowitz argues this limitation is not disclosed or rendered obvious by Waugh, it would have been obvious to a person having ordinary skill in the art to modify Waugh 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 bracket contacts both the first and second screw heads when the screw locking bracket is connect to the intervertebral cage.	Waugh discloses or renders obvious claim 1. <i>See</i> [1A]-[1J]. Waugh discloses or renders obvious this limitation. As discussed above, Waugh teaches a faceplate (screw locking bracket) according to the claims. <i>See</i> [1J]. Further, Waugh teaches that, when the screw locking bracket is connected to the intervertebral cage, the screw locking bracket contacts the screw heads to physically block them from backing up. For example, Waugh teaches: To reduce the chance of the anchor members 106 backing out of the vertebral bodies over time and causing the implant member 102 to become loose, the face plate 104 is configured to extend across at least a portion of

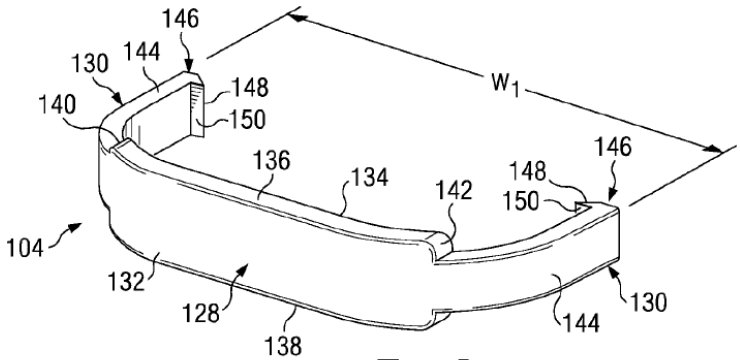
Asserted Claim	Prior Art
	the anchor member apertures 126 and <i>physically block anchor member back-out.</i> Waugh ¶ [0031] (emphasis added). This same teaching is made with respect to the other faceplate embodiments taught by Waugh. For example, with respect to the embodiment shown and described in Figs. 7 and 8, Waugh teaches: As with the other embodiments, the faceplate 204 overlaps the anchor member apertures 214 and inhibits anchor member back-out. <i>Id.</i> ¶ [0042].  <i>Fig. 7</i> <i>Id.</i> at Fig. 7.

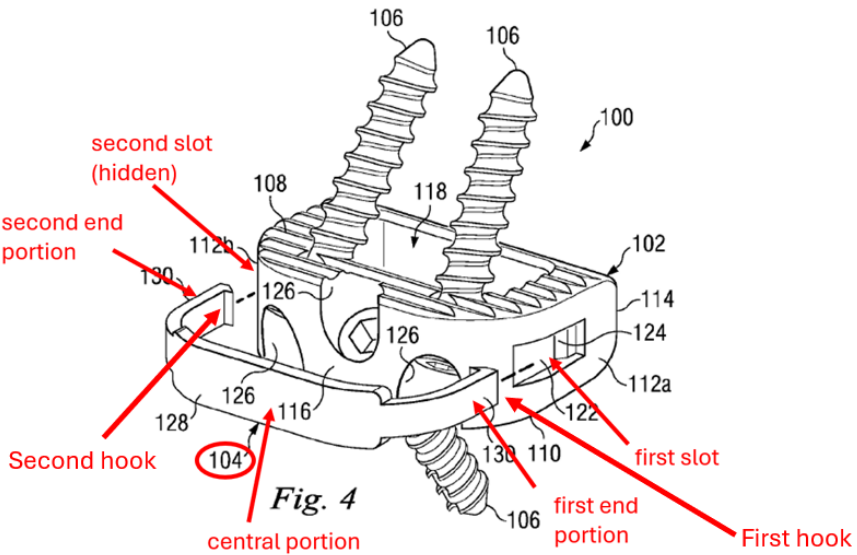
Asserted Claim	Prior Art
	<i>Fig. 8</i> <i>Id.</i> at Fig. 8. Similarly, with respect to the limitation shown and described at Figs. 9-11, Waugh teaches: The interfacing surface 328 lies against the front surface 312 of the implant member 302 and deters the anchor members from backing out by physically blocking them. The face plate 304 connects to the implant member 302 using, in this exemplary embodiment, the securing tabs 324 and locking tabs 322. <i>Id.</i> ¶ [0046] (emphasis added).

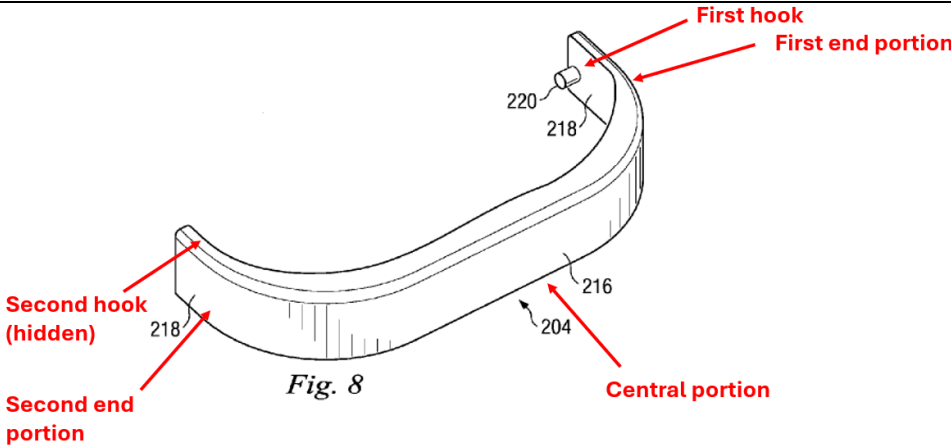
Asserted Claim	Prior Art
	 <i>Fig. 9</i> <i>Id. at Fig. 9.</i>  <i>Fig. 10</i>

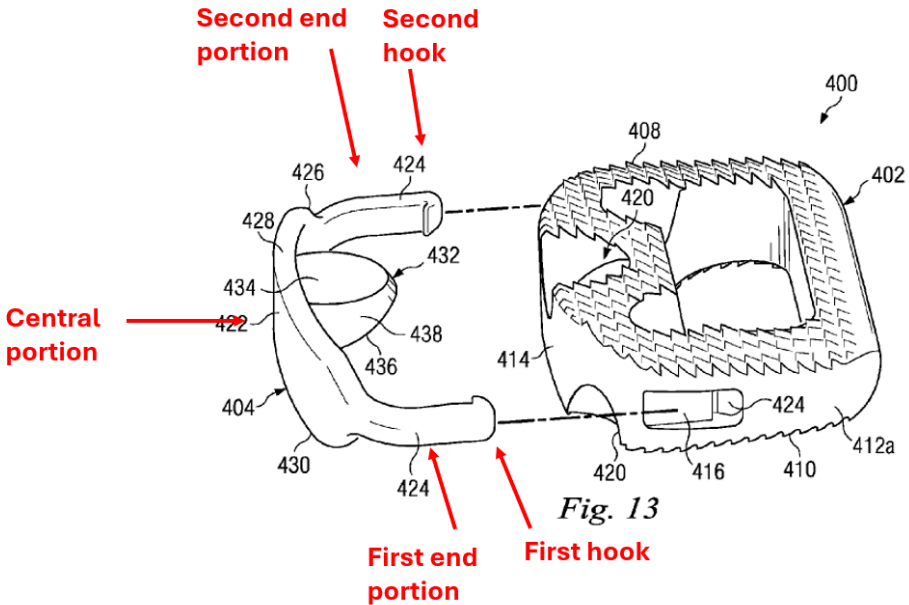
Asserted Claim	Prior Art
	<i>Id.</i> at Fig. 10.  <i>Fig. 11</i> <i>Id.</i> at Fig. 11. With respect to the embodiment shown in Figs. 12-14, Waugh teaches: The projecting protuberances 432 are sized and shaped to at least partially penetrate into the anchor member apertures 420 and fit adjacent the anchor members. In some exemplary embodiments, the projecting protuberances 432 lie flat against or flush with the anchor members to substantially eliminate anchor member back-out. In these exemplary embodiments, the anchor members are held more tightly in place, and their movement is more limited than in the prior embodiments. <i>Id.</i> ¶ [0051]. In all of these embodiments, Waugh teaches “wherein the screw locking bracket contacts both the first and second screw heads when the screw locking bracket is connect to the intervertebral cage[.]”

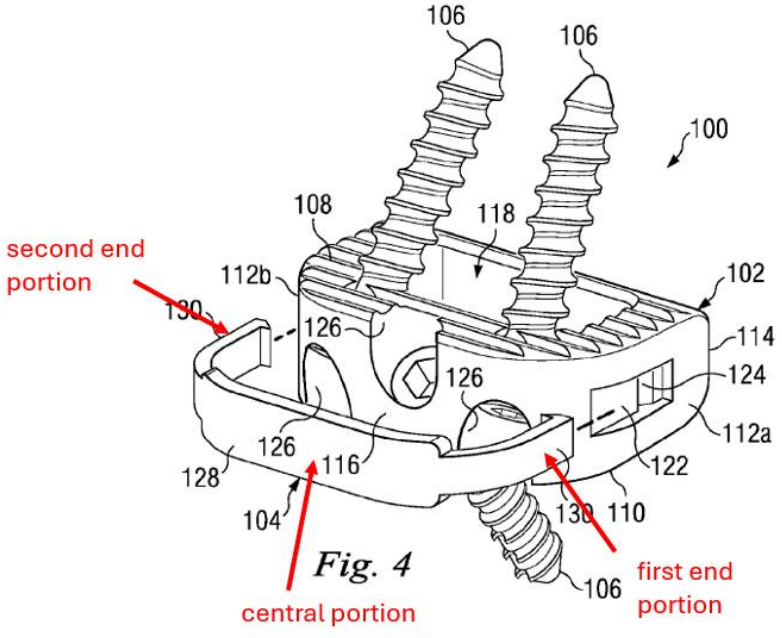
Asserted Claim	Prior Art
	To the extent Moskowitz argues this limitation is not disclosed or rendered obvious by Waugh, it would have been obvious to a person having ordinary skill in the art to modify Waugh or combine it with any of the other prior art references identified in Defendants' Invalidity Contentions Cover Pleading that disclose this limitation.
Claim 3	
[3] The apparatus of claim 1, wherein the screw locking bracket comprises a first hook at the first end portion that is sized to fit in the first slot and a second hook at the second end portion that is sized to fit in the second slot.	Waugh discloses or renders obvious claim 1. <i>See</i> [1A]-[1J]. Waugh discloses or renders obvious this limitation. As discussed with respect to [1J] and [2] above, Waugh teaches a faceplate (screw locking bracket) according to the claims. <i>See</i> [1J], [2]. Faceplates shown and described by Waugh comprise a first hook at the first end portion that is sized to fit in the first slot and further comprise a second hook at the second end portion that is sized to fit in the second slot. For example, Waugh teaches: In the embodiment shown, the locking protrusions 146 are angled protrusions having a leading tapered surface 148 and a trailing locking surface 150. In the embodiment shown, the faceplate 104 is configured to attach to the exterior sides 112 a-b of the implant member 102. Waugh ¶¶ [0033]-[0034].

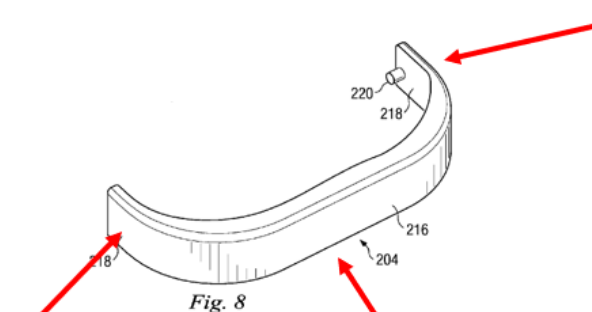
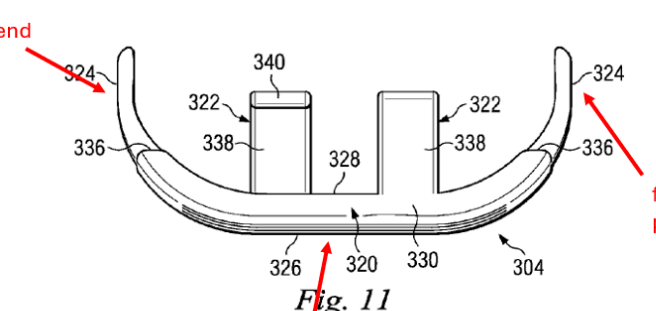
Asserted Claim	Prior Art
	 <i>Fig. 5</i> <i>Id.</i> at Fig. 5.

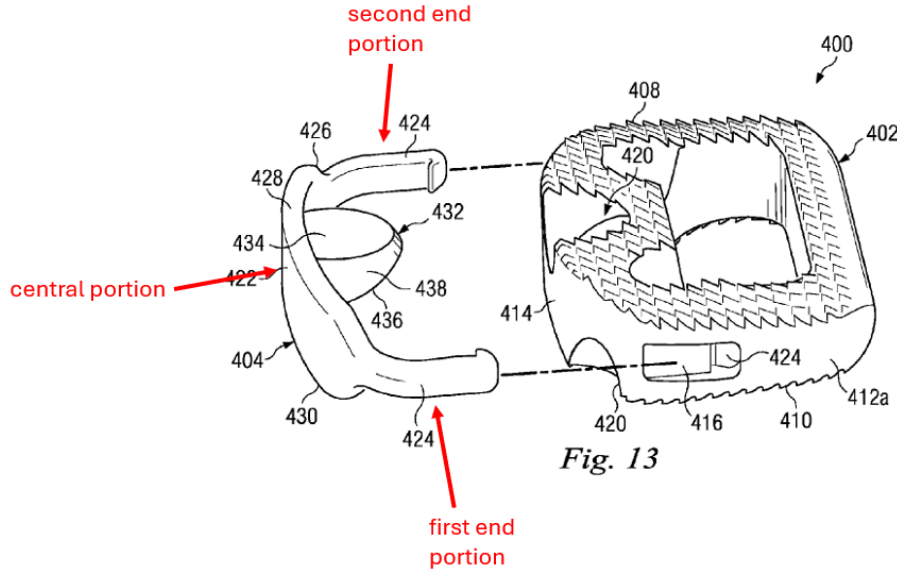
Asserted Claim	Prior Art
	 <i>Fig. 4</i> <i>Id.</i> at Fig. 4 annotated; <i>see also id.</i> at Fig. 3. Waugh further teaches other faceplate embodiments having first and second hooks. For example, with respect to the embodiment shown at Figure 8, Waugh teaches: Locking protrusions 220 (only one is shown) extend inwardly from the locking tabs 218, generally facing each other. In this exemplary embodiment, the locking protrusions 220 are cylindrical projections configured to fit into cylindrical connecting impressions on the implant member 202. Again, as described above, the faceplate 204 is configured to snap onto the implant member 202 and inhibit anchor member back-out. <i>Id.</i> ¶ [0043].

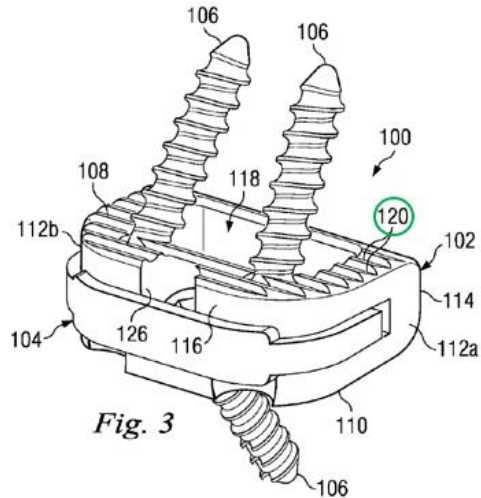
Asserted Claim	Prior Art
	 <i>Id.</i> at Fig. 8; <i>see also</i> Fig. 7. Similarly, with respect to the limitation shown and described at Figs. 12-14, Waugh teaches: The face plate 404 includes a main body 422 locking tabs 424. The main body 422 includes an interfacing surface 426 and respective top and bottom surfaces 428, 430. In the exemplary embodiment shown in FIGS. 12-14, projecting protuberances 432 extend from the interfacing surface 426 of the main body 422 in the same general direction as the locking tabs 424. <i>Id.</i> ¶ [0051].

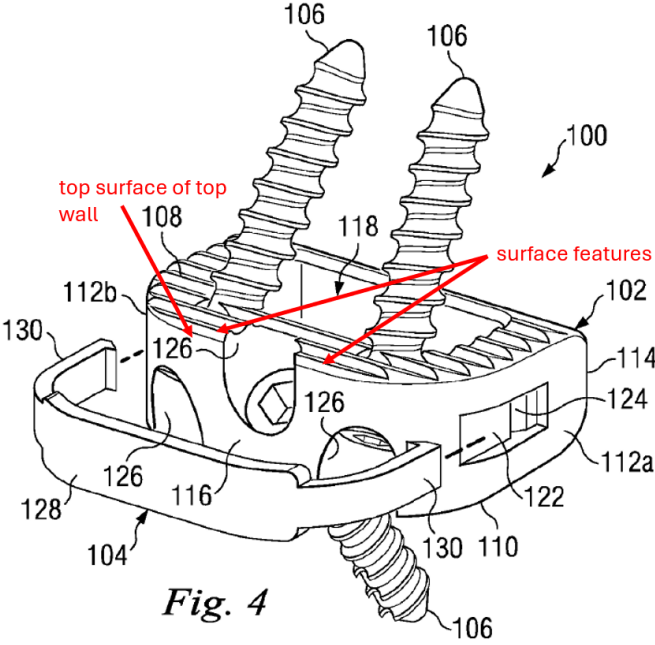
Asserted Claim	Prior Art
	 <i>Id.</i> at Fig. 13. To the extent Moskowitz argues this limitation is not disclosed or rendered obvious by Waugh, it would have been obvious to a person having ordinary skill in the art to modify Waugh or combine it with any of the other prior art references identified in Defendants’ Invalidity Contentions Cover Pleading that disclose this limitation.
Claim 4	
[4] The apparatus of claim 1, wherein the first end portion and the second end portion extend in a direction that is	Waugh discloses or renders obvious claim 1. <i>See</i> [1A]-[1J]. Waugh discloses or renders obvious this limitation. All of the faceplate embodiments taught by Waugh have a “first end portion” and “second end portion” that “extend in a direction that is substantially perpendicular to the central portion.”

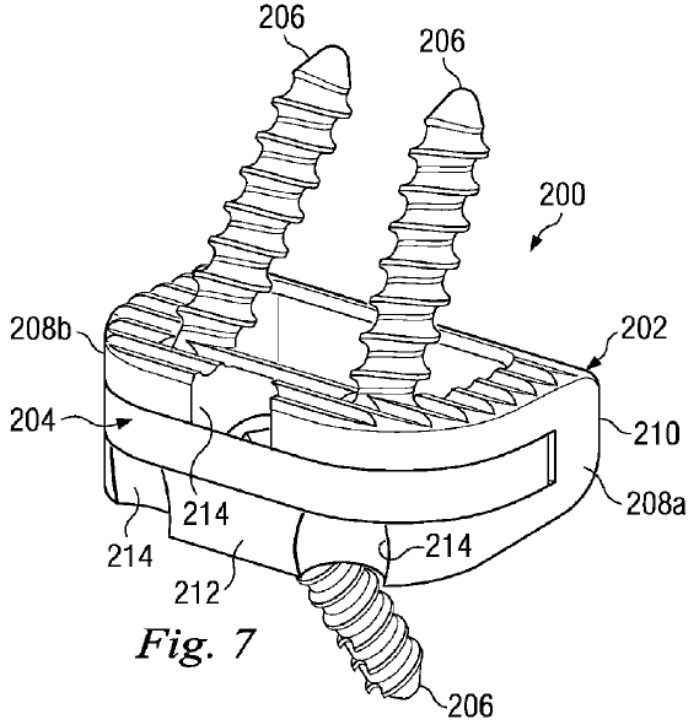
Asserted Claim	Prior Art
substantially perpendicular to the central portion.	For example, the embodiment at Waugh Exhibit 4 shows first end portion and second end portion that are “substantially perpendicular”:  Waugh at Fig. 4 annotated.

Asserted Claim	Prior Art
	 first end portion second end portion central portion Fig. 8 <i>Id.</i> at Fig. 8 annotated.  second end portion first end portion central portion Fig. 11 <i>Id.</i> at Fig. 11 annotated.

Asserted Claim	Prior Art
	 <i>Id.</i> at Fig. 13 annotated. To the extent Moskowitz argues this limitation is not disclosed or rendered obvious by Waugh, it would have been obvious to a person having ordinary skill in the art to modify Waugh or combine it with any of the other prior art references identified in Defendants' Invalidity Contentions Cover Pleading that disclose this limitation.
Claim 5	
[5] The apparatus of claim 1, wherein the plurality of surface features on the side surface and the second side surface are patterned all the	Waugh discloses or renders obvious claim 1. <i>See</i> [1A]-[1J]. Waugh discloses or renders obvious this limitation.

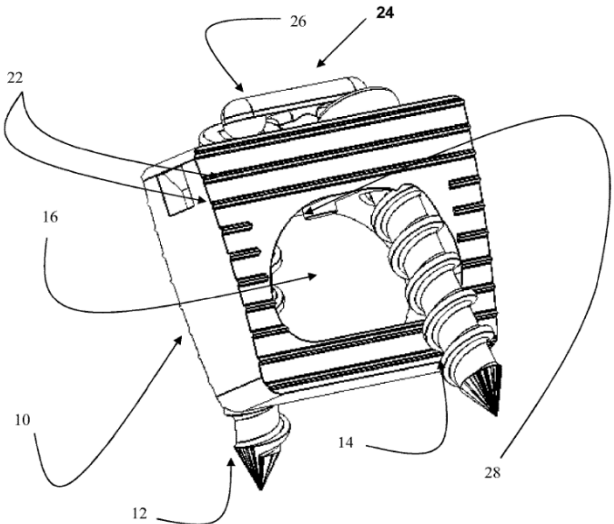
Asserted Claim	Prior Art
way next to the top surface of the top wall so as to be adjacent the top surface of the top wall.	Waugh teaches and shows embodiments having a plurality of surface features on the side surface and second side surface that are patterned all the way next to the top surface of the top wall so as to be adjacent to the top surface of the top wall. For example, Waugh teaches: the upper and lower surfaces 108, 110 include bone engaging features 120 configured to reduce slipping or movement of the implant member 102 relative to the vertebrae 14, 16. In the exemplary embodiment shown, the bone engaging features 120 are angled teeth that permit introduction into the disc space, but also restrict removal. These may be any other known bone engaging features, including protrusions and keels, among others. Waugh ¶ [0029]. These bone engaging features (surface features) are shown, for example, in Figure 3:  <i>Fig. 3</i>

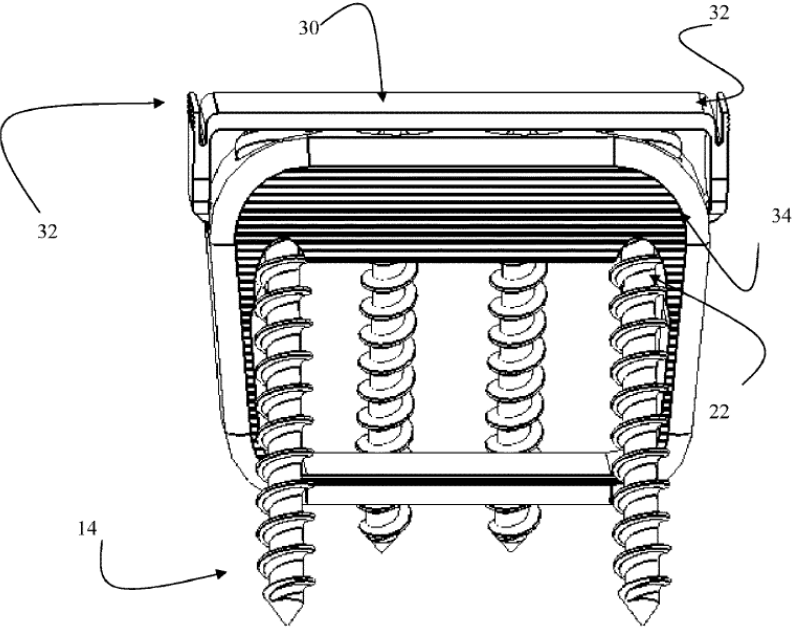
Asserted Claim	Prior Art
	<i>Id.</i> at Fig. 3 (annotated). As shown in the image above, these bone engaging features 120 are patterned and positioned on the side surface and second side surface of the top wall all the way next to the top surface of the top wall so as to be adjacent the top surface of the top wall. <i>See</i>:  <i>Fig. 4</i> <i>Id.</i> at Fig. 4 (annotated). In addition, other embodiments disclosed in Waugh likewise teach surface features on the side surface and second side surface patterned all the way next to the top surface of the top wall:

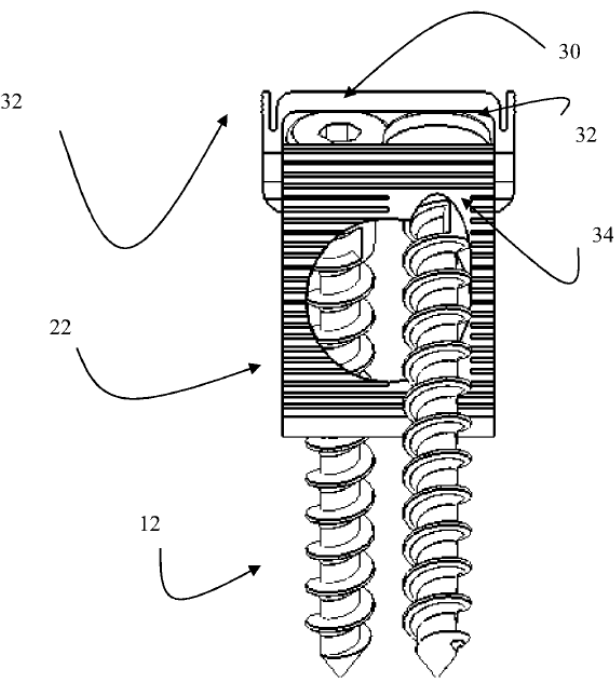
Asserted Claim	Prior Art
	 <i>Fig. 7</i> <i>Id. at Fig. 7.</i>

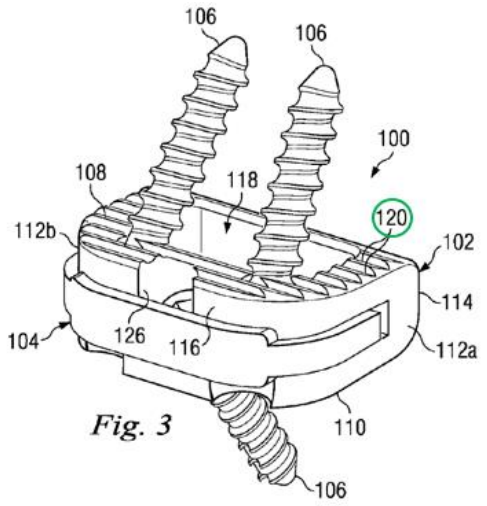
Asserted Claim	Prior Art
	<i>Fig. 12</i> <i>Fig. 13</i> <i>Id.</i> at Fig. 13. Waugh thus teaches “wherein the plurality of surface features on the side surface and the second side surface are patterned all the way next to the top surface of the top wall so as to be adjacent the top surface of the top wall.” To the extent Moskowitz argues this limitation is not disclosed or rendered obvious by Waugh, it would have been obvious to a person having ordinary skill in the art to modify Waugh or combine it with any of the other prior art references identified in Defendants’ Invalidity Contentions Cover Pleading that disclose this limitation.
Claim 7	

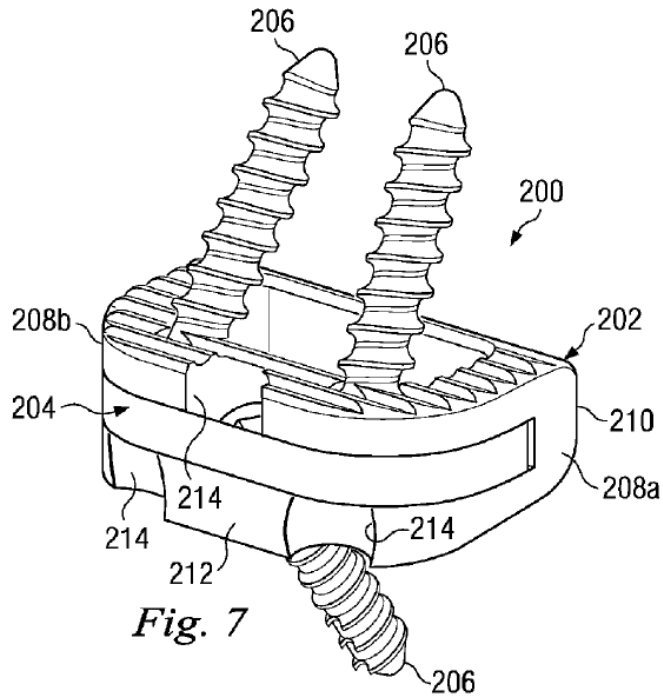
Asserted Claim	Prior Art
[7] The apparatus of claim 1, wherein the intervertebral cage is sized and configured for use in a patient's lumbar spine, the apparatus further comprising means for fusing superior and inferior lumbar vertebral bodies in conjunction with the intervertebral cage.	Waugh discloses or renders obvious claim 1. <i>See</i> [1A]-[1J]. Waugh discloses or renders obvious this limitation. Waugh makes clear that its devices are sized and configured for use in a patient's lumbar spine: Although the illustrations of FIGS. 1 and 2 generally depict a lumbar vertebrae and a lumbar vertebral segment, it is understood that the devices, systems, and methods of this disclosure may also be applied to all regions of the vertebral column, including the cervical and thoracic regions. Waugh ¶ [0026]. <i>See also id.</i> ¶ [0010] (“Fig. 1 is an illustration of a lateral view of a segment of a lumbar spine”); <i>id.</i> at Fig. 1. In alleging infringement of this limitation, Moskowitz accuses “autogenous bone and/or allograft bone graft comprised of cancellous and/or corticocancellous bone graft, and/or demineralized allograft bone with bone marrow aspirate” with respect to the claimed “means for fusing superior and inferior lumbar vertebral bodies in conjunction with the intervertebral cage.” <i>See</i> Moskowitz Infringement Contentions, Ex. D1 at [7]. Waugh discloses the use of such materials as well: A hollow center 118 may allow placement of bone growth materials, such as allograft to promote bonding and fusion of the implantable device 100 to the adjacent vertebrae. Waugh ¶ [0028] (emphasis added). Thus Waugh teaches “means for fusing superior and inferior vertebral bodies in conjunction with the intervertebral cage.” To the extent “means for fusing superior and inferior lumbar vertebral bodies in conjunction with the intervertebral cage” is construed to invoke means-plus-function claiming under 35 U.S.C. 112(6), the ’738 Patent does not describe “autogenous bone and/or allograft bone graft comprised of cancellous and/or corticocancellous bone graft, and/or demineralized allograft bone with bone marrow aspirate”

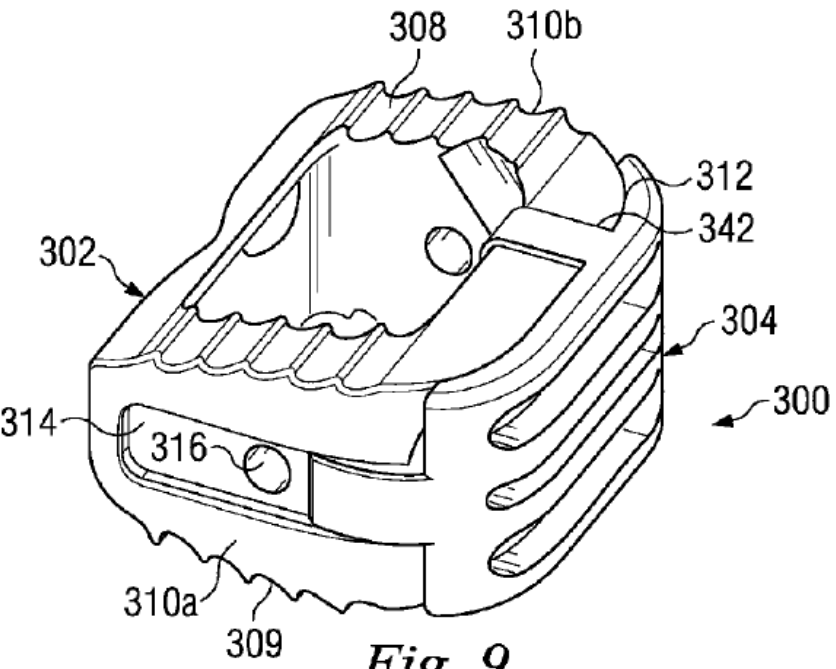
Asserted Claim	Prior Art
	anywhere in the specification, nor does the specification expressly link such structure(s) with performing the recited function of “fusing superior and inferior vertebral bodies.” Instead, the '738 Patent specification expressly describes “ridges 22 to facilitate integration and fusion with superior and inferior vertebral bodies.” These ridges are described as structures that perform this recited function at least three separate times in the specification. <i>See, e.g.</i>, '738 Patent at 7:32-35 (describing Figs. 1A-E); 9:47-50 (describing Figs. 3A-F); 11:23-25 (describing Figs. 4A-F). <i>See also, e.g.:</i>  FIGURE 1(B) '738 Patent at Fig. 1B.

Asserted Claim	Prior Art
	 FIGURE 3(C) <i>Id.</i> at Fig. 3C.

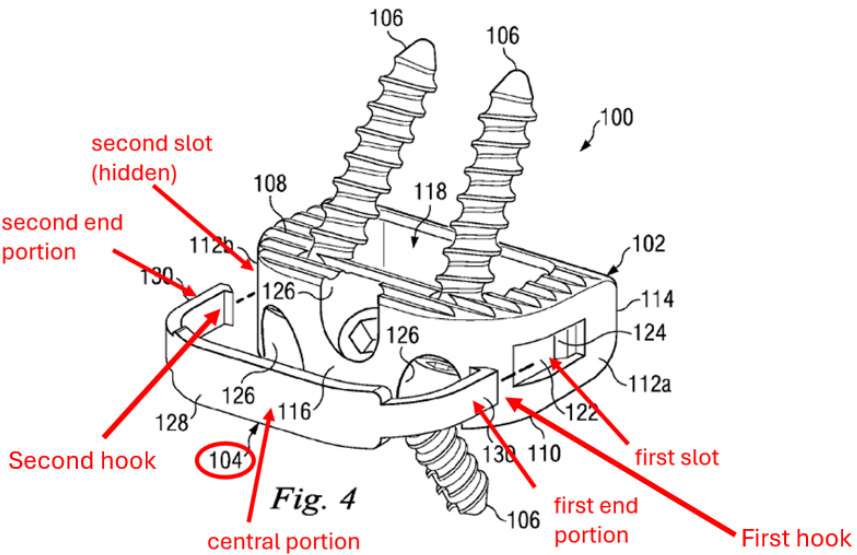
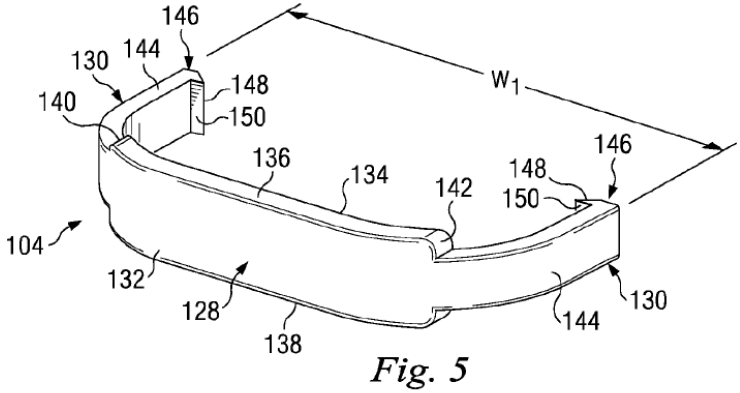
Asserted Claim	Prior Art
	 FIGURE 4(B) <i>Id.</i> at Fig. 4B. Thus to the extent the claim term/phrase “means for fusing superior and inferior vertebral bodies in conjunction with the intervertebral cage” invokes 112(6) and the corresponding claimed structure is “ridges to facilitate integration and fusion with superior and inferior vertebral bodies,” Waugh teaches such ridges. For example, Waugh teaches: the upper and lower surfaces 108, 110 include bone engaging features 120 configured to reduce slipping or movement of the implant member 102 relative to the vertebrae 14, 16. In the exemplary embodiment shown, the bone engaging features 120 are angled teeth that

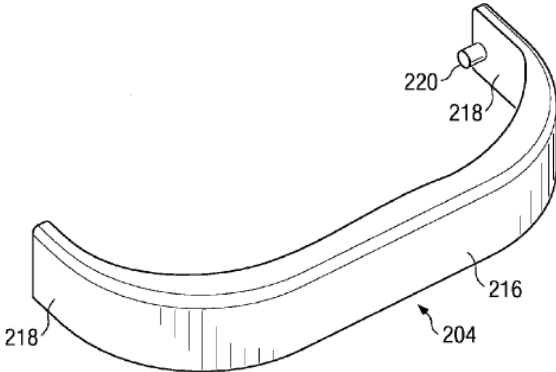
Asserted Claim	Prior Art
	permit introduction into the disc space, but also restrict removal. These may be any other known bone engaging features, including protrusions and keels, among others. Waugh ¶ [0029]. These bone engaging features of Waugh are shown as “bone engaging teeth” or ridges, for example, in Figure 3:  <i>Id.</i> at Fig. 3 (annotated). Similarly, the embodiments shown in Figs. 7 and 9 have ridges on both their superior and inferior sides:

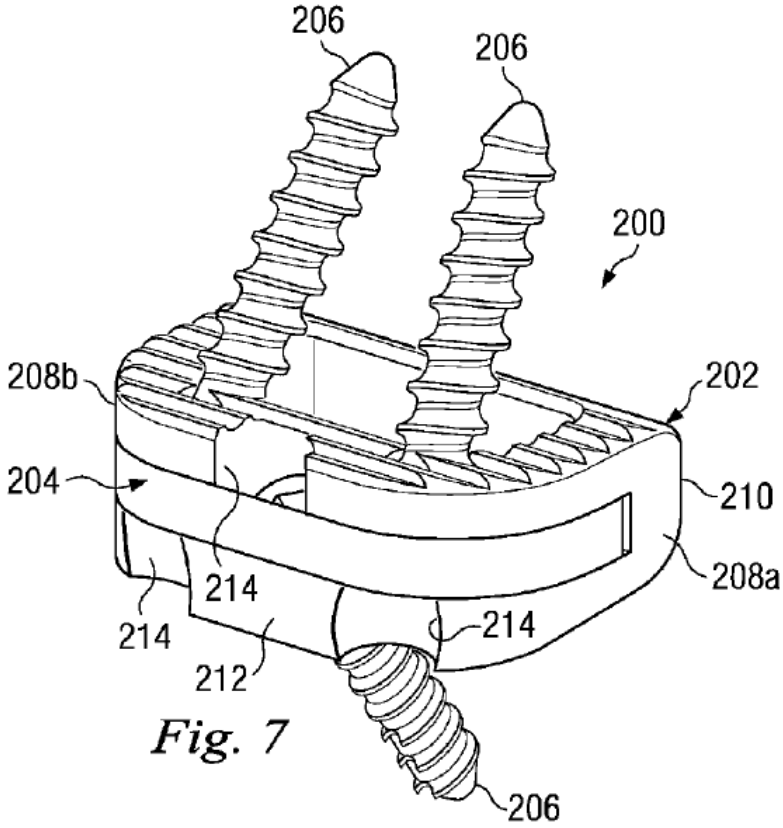
Asserted Claim	Prior Art
	 <i>Id.</i> at Fig. 7.

Asserted Claim	Prior Art
	 Fig. 9 <i>Id.</i> at Fig. 9; <i>see also id.</i> at Figs. 12-14. As a result, to the extent this claim language invokes 112(6), and the corresponding structure is “ridges to facilitate integration and fusion with superior and inferior vertebral bodies,” Waugh discloses such ridges and therefore discloses “further comprising means for fusing superior and inferior vertebral bodies in conjunction with the intervertebral cage.” To the extent Moskowitz argues this limitation is not disclosed or rendered obvious by Waugh, it would have been obvious to a person having ordinary skill in the art to modify Waugh or combine it

Asserted Claim	Prior Art
	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, wherein the screw locking bracket comprises a first hook at the first end portion that curves inward to engage the first slot and a second hook at the second end portion that curves inward to engage the second slot.	Waugh discloses or renders obvious this limitation. As discussed with respect to [1J], [2] and [3] above, Waugh teaches a faceplate (screw locking bracket) according to the claims. <i>See</i> [1J], [2], [3]. Faceplates shown and described by Waugh comprise a first hook at the first end portion that curves inward to engage the first slot and further comprise a second hook at the second end portion that curves inward to engage the second slot. For example, Waugh teaches: In the embodiment shown, the locking protrusions 146 are angled protrusions having a leading tapered surface 148 and a trailing locking surface 150. In the embodiment shown, the faceplate 104 is configured to attach to the exterior sides 112 a-b of the implant member 102. Waugh ¶¶ [0033]-[0034].

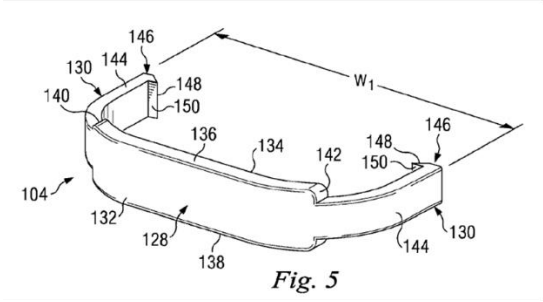
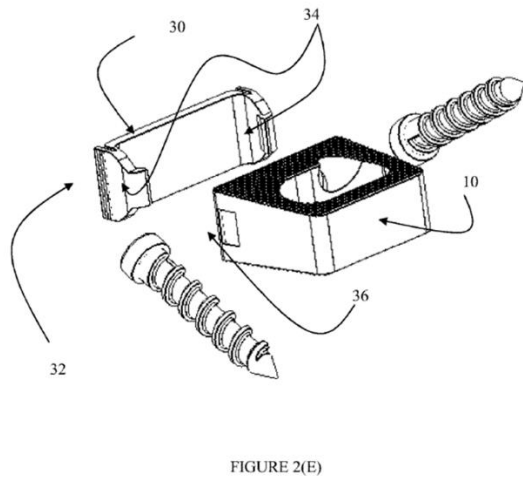
Asserted Claim	Prior Art
	 <i>Fig. 4</i> <i>Id.</i> at Fig. 4 annotated.  <i>Fig. 5</i>

Asserted Claim	Prior Art
	<i>Id.</i> at Fig. 5. Waugh further teaches other faceplate embodiments having first and second hooks that curve inward to engage first and second slots. With respect to the embodiment shown at Figure 8, Waugh teaches: Locking protrusions 220 (only one is shown) extend inwardly from the locking tabs 218, generally facing each other. In this exemplary embodiment, the locking protrusions 220 are cylindrical projections configured to fit into cylindrical connecting impressions on the implant member 202. Again, as described above, the faceplate 204 is configured to snap onto the implant member 202 and inhibit anchor member back-out. <i>Id.</i> ¶ [0043] (emphasis added).  <i>Fig. 8</i> <i>Id.</i> at Fig. 8.

Asserted Claim	Prior Art
	 <i>Fig. 7</i> <i>Id.</i> at Fig. 7. Similarly, with respect to the limitation shown and described at Figs. 12-14, Waugh teaches: The face plate 404 includes a main body 422 locking tabs 424. The main body 422 includes an interfacing surface 426 and respective top and bottom surfaces 428, 430. In the exemplary embodiment shown in FIGS. 12-14, projecting protuberances 432 extend from

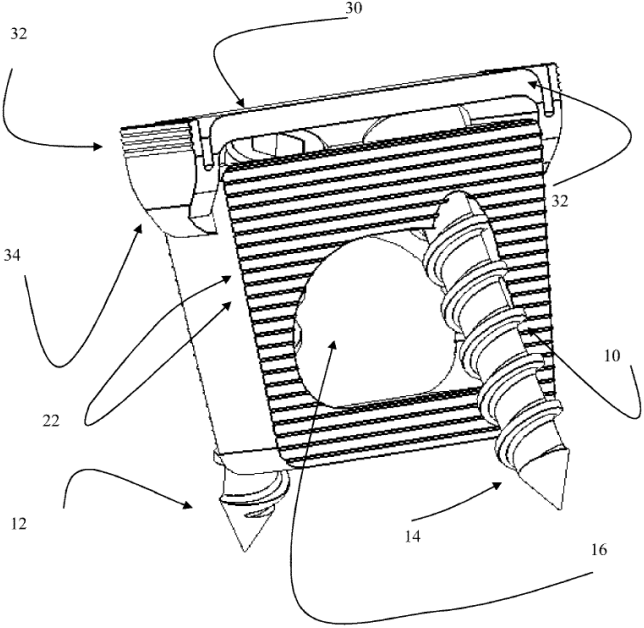
Asserted Claim	Prior Art
[10] The apparatus of claim 1, wherein the screw locking bracket comprises means to slightly open the screw locking bracket.	Waugh discloses or renders obvious claim 1. <i>See</i> [1A]-[1J]. Waugh discloses or renders obvious this limitation. In alleging infringement of this limitation, Moskowitz identifies holes in the accused Coverplate that can receive a Coverplate Remover tool. The image contains two diagrams. The left diagram shows a curved, C-shaped bracket with two small circular holes. Red arrows point from the text 'means to slightly open the screw locking bracket' to each of these holes. The right diagram shows a cross-section of a vertebral body with a screw already inserted. A similar bracket is shown being inserted into the vertebral body, with a red arrow pointing to the hole in the bracket. <i>See</i> Moskowitz Infringement Contentions, Ex. D1 at [10]. Waugh discloses that when attaching face plate 104 to implant member 102, “locking tabs 130 may be configured to elastically deform when placing the faceplate 104 on the implant member 102,” and that this is achieved when “the tapered surfaces 148 of the locking protrusions 146 contact the implant member 102 and are elastically forced apart.” Waugh ¶¶ [0035], [0058].

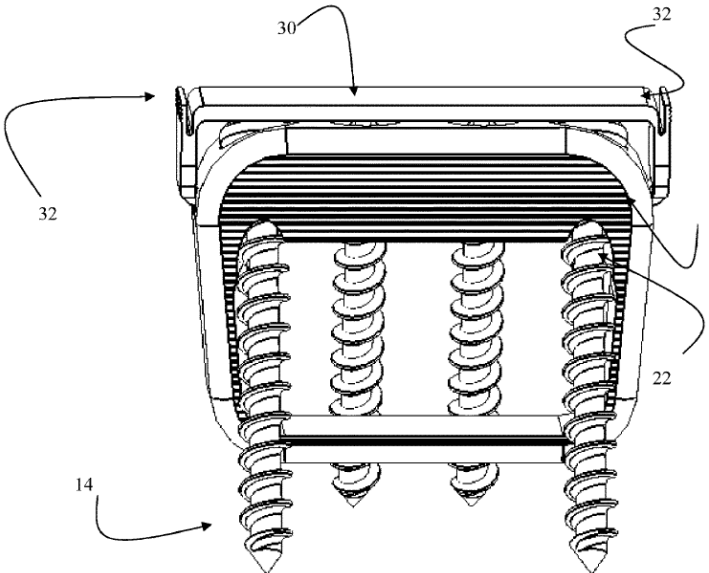
Asserted Claim	Prior Art
	the locking tabs 130 may be configured to elastically deform when placing the faceplate 104 on the implant member 102, and then snap into place, thereby securing the faceplate 104 onto the implant member 102 and physically limiting back-out of the anchor members 106 from the implant member 102. Waugh ¶ [0035]. Once there, the faceplate 104 snaps onto the implant member 102 because the locking tabs 130 deform toward their original positions as the locking protrusions 146 at least partially snap into the connecting impressions 124. The locking surface 150 on the locking protrusion 146 engages against the connecting impressions 124 and resists detaching the faceplate 104 from the implant member 102. Waugh ¶ [0058]. The locking tabs 424, like those described with respect to other embodiments herein, may be configured to elastically deform when placing the face plate 404 on the implant member 402, and then snap into place, thereby securing the face plate 404 onto the implant member 402 and physically limiting back-out of the anchor members from the implant member 402. <i>Id.</i> ¶ [0054]. The locking tabs 322, like those described with respect to other embodiments herein, may be configured to elastically deform when placing the face plate 304 on the implant member 302, and then snap into place, thereby securing the face plate 304 onto the implant

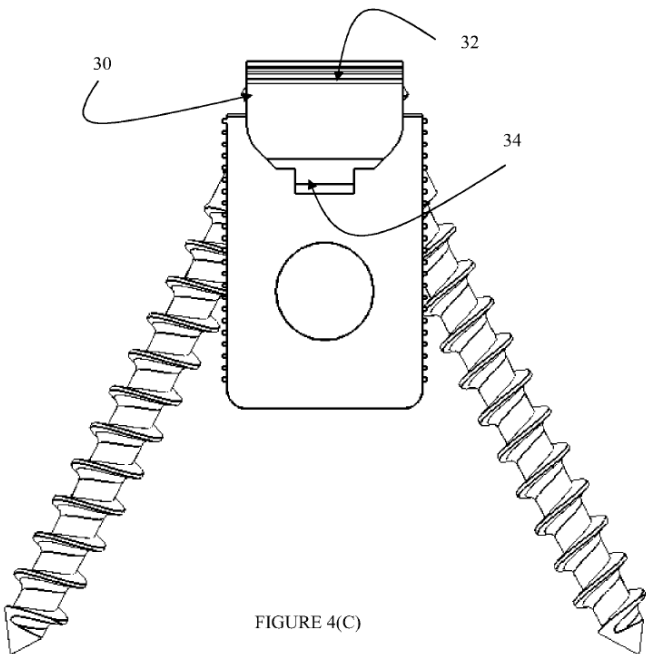
Asserted Claim	Prior Art
	member 302 and physically limiting back-out of the anchor members from the implant member 302. <i>Id.</i> ¶ [0048]; <i>see also id.</i> ¶¶ [0043], [0006], [0008]. Further, similar to the “deformable” screw locking bracket of the ’738 patent, Waugh discloses that its face plate can be made of PEEK, which is a deformable thermoplastic material. <i>See</i> ’738 patent, 9:23-24; Waugh ¶ [0037]. Waugh’s face plate 104 also has the same geometry as the ’738 patent’s screw locking bracket 30 (as shown below) and is inserted in the same manner as the ’738 patent’s screw locking bracket 30. <i>Compare</i> Waugh at Fig. 5, <i>with</i> ’738 Patent at Fig. 2(E); <i>compare</i> Waugh ¶ [0035] (disclosing that Waugh’s “faceplate 104 may be configured to snap onto the implant member”), <i>with</i> ’738 patent at 8:52-56 (disclosing that the ’738 patent’s screw locking bracket 30 is “press fit . . . onto the cage).) <u>Waugh</u>  <u>'738 Patent</u>  Waugh at Fig. 5; ’738 patent at Fig. 2(E).

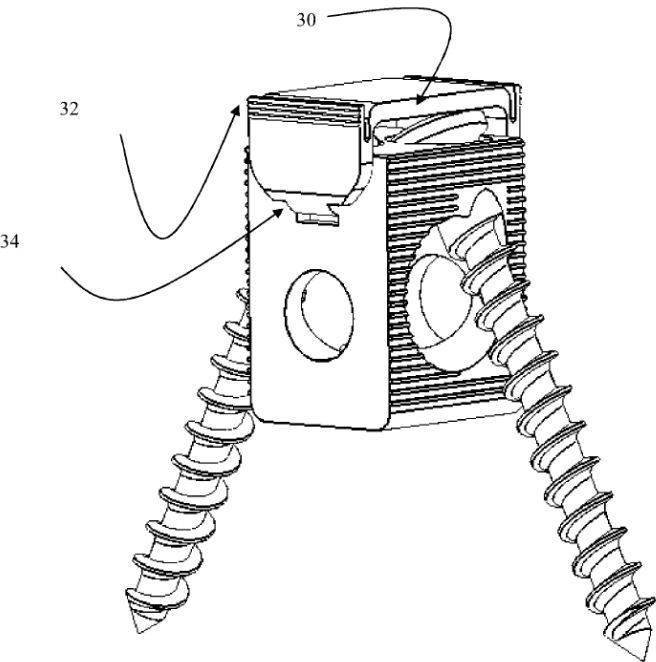
Asserted Claim	Prior Art
	Based on these similarities, a POSITA would understand that the arms of Waugh’s various faceplate embodiments are elastically deformable, and could be bent outward from the cage by applying pressure in order to remove the faceplate from the implant to slightly open the screw locking bracket. As such, this limitation would have been obvious to a POSITA in view of the disclosure of Waugh. Waugh thus discloses or renders obvious “means to slightly open the screw locking bracket.” To the extent “means to slightly open the screw locking bracket” invokes 112(6), the ’738 Patent specification states: • “In order to remove the bracket 30; if it becomes necessary to remove the cage 10 at some future time, flexion grips (side tabs) 32 have been designed on the bracket 30. The locking bracket 30 can be applied to the construct 10 with the specially designed pliers (exemplarily described with reference to FIG. 5) which press fit the bracket 30 onto the cage 10 thereby locking the screws 12, 14. In order to remove the bracket 30, the user needs only to press on the side tabs 32 with the pliers (FIG. 5) to slightly deform (open) the bracket hooks 34, and thereby easily remove the bracket.” ’738 Patent at 8:49-59; • “The side tabs 32 of the screw locking horizontal bracket 30 include bracket flexion grips. The screw locking horizontal bracket 30 can be deformable. The screw locking horizontal bracket 30 can be deformable under pressure applied to the bracket flexion grips.” <i>Id.</i> at 9:22-26. • “In order to remove the bracket 30, the user needs only to press on the side tabs 32 with the pliers (FIG. 5) to slightly deform (open) the bracket hooks 34, and thereby easily remove the bracket 30.” ’738 Patent at 10:4-12; <i>see also id.</i> at 11:51-54; • “The method can further include unlocking the first screw member and the second screw member, wherein the intervertebral cage includes hook insertion slots, wherein the screw locking horizontal bracket includes a cover portion extending in

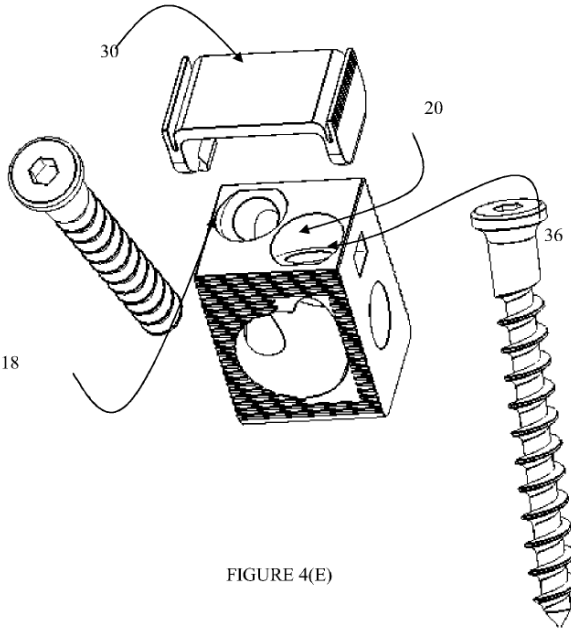
Asserted Claim	Prior Art
	a direction of a longitudinal axis of the intervertebral cage and substantially parallel to a top face of the intervertebral cage, the cover portion covering and locking the first screw member and the second screw member in the intervertebral cage, side tabs on each end of the cover portion, wherein the side tabs extend in a direction perpendicular to the cover portion along the sides of the intervertebral cage, and wherein the side tabs include bracket hooks extending from the side tabs and lockingly engaging the hook insertion slots of the intervertebral cage, and <i>bracket flexion grips</i> for deforming the screw locking horizontal bracket, wherein <i>the unlocking includes applying pressure to the bracket flexion grips to deform the screw locking horizontal bracket</i> such that the side tabs of the screw locking bracket move away from the intervertebral cage and release the bracket hooks of the screw locking horizontal bracket from the hook insertion slots of the intervertebral cage.” <i>Id.</i> at 19:44-65. The side tabs 32 that are pressed with the pliers (Fig. 5) are shown in the relevant figures of the '738 Patent. <i>See, e.g.:</i>

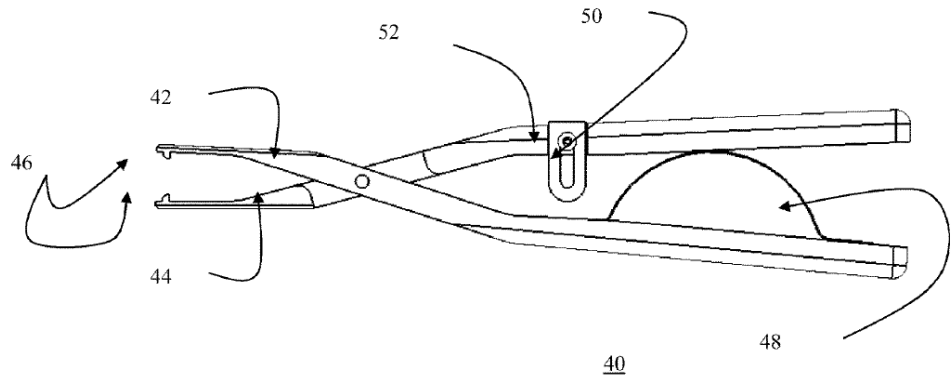
Asserted Claim	Prior Art
	 FIGURE 2(B) <i>Id.</i> at Fig. 2B; <i>see also</i> Figs. 2A, 2C-2E.

Asserted Claim	Prior Art
	 FIGURE 3(C) <i>Id.</i> at Fig. 3C; <i>see also</i> Figs. 3A-3B, 3D-3F.

Asserted Claim	Prior Art
	 FIGURE 4(C) <i>Id.</i> at Fig. 4C;

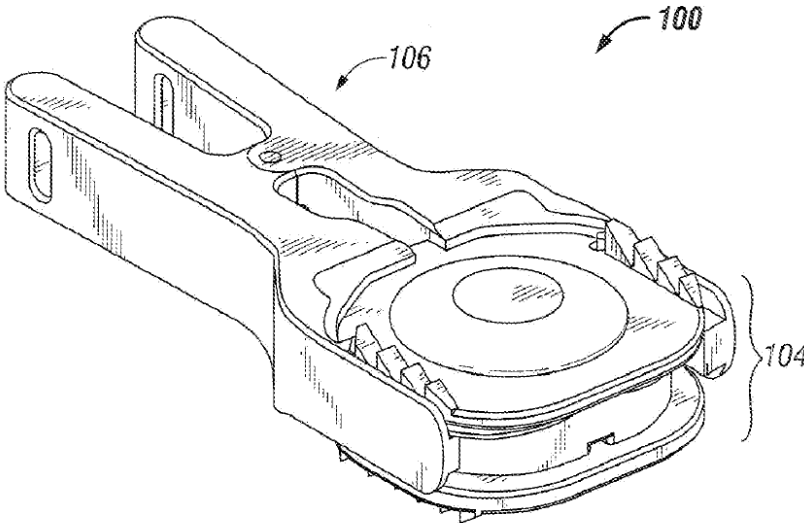
Asserted Claim	Prior Art
	 FIGURE 4(D) <i>Id.</i> at Fig. 4D;

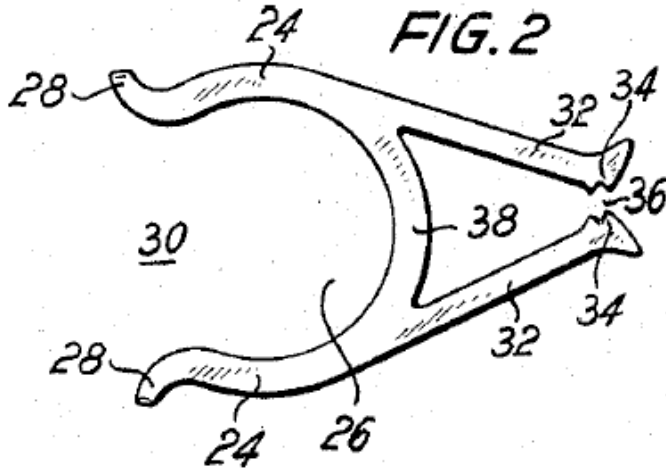
Asserted Claim	Prior Art
	 FIGURE 4(E) <i>Id.</i> at Fig. 4E; <i>see also</i> Fig. 4A-4B, 4F. The fact that the “means to slightly open the screw locking bracket” described by the ’738 Patent require side tabs (or “flexion grips”) 32 that must be depressed is also made clear by the tool shown in Figure 5, which is designed to engage ridges on these side tabs and press inward to deform the bracket hooks of the bracket. <i>See, e.g.:</i>

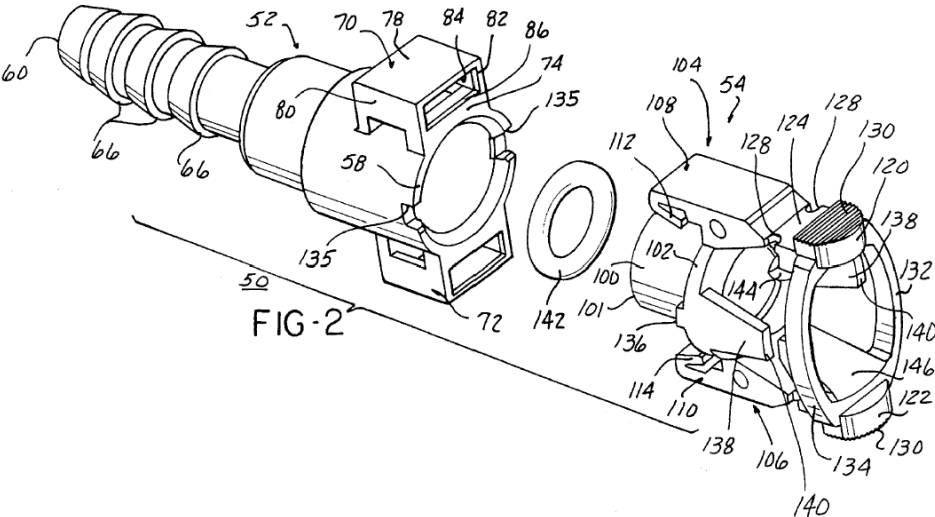
Asserted Claim	Prior Art
	 FIGURE 5 <i>Id.</i> at Fig. 5. The specification’s description with respect to this tool and its operation further confirms this specific design. <i>See, e.g., id.</i> at 12:10-17 (“the first arm includes an upper plier tip 42 and the second arm includes a lower plier tip 44, wherein the first arm and the second arm engage the bracket flexion grips 32, wherein the upper plier tip 42 and the lower plier tip 44 each include a stop 46 configured to engage the bracket flexion grips 32, and a leaf spring 48 between the first arm and the second arm, wherein the leaf spring biases the first hand portion away from the second handle portion.”) In the event “means to slightly open the screw locking bracket” invokes 112(6), it would have been obvious to a POSITA to include deformable side tabs, as disclosed in the ’738 Patent, that could be pressed together in order to deform and release the faceplate embodiments taught by Waugh. Further, detachable structures with deformable tabs that are pressed or squeezed together in order to slightly open the structure for release were well-known in the art. For example, US Patent No. 8,579,911 (“Dudasik”) discloses surgical implant insertion and removal tools having squeezing handles or tabs that, when pressed together, pivot and cause jaws to articulate and release from the implant.

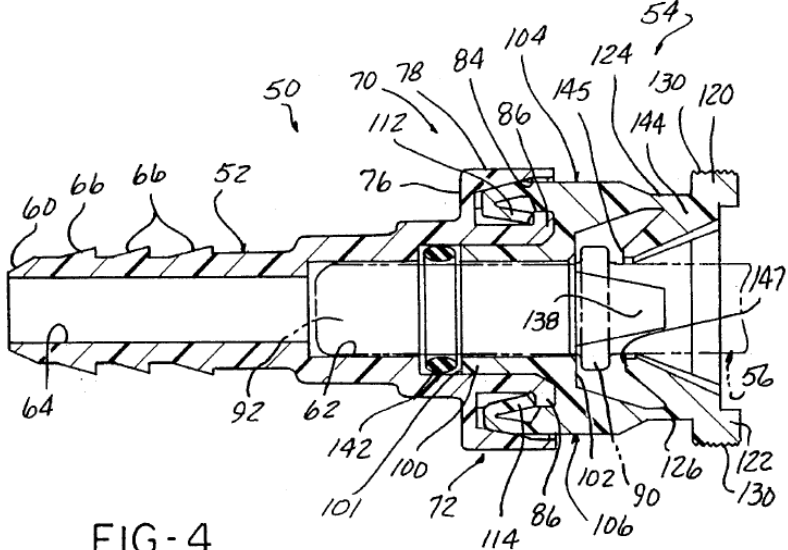
Asserted Claim	Prior Art
	Dudasik discloses: The implant dispensers may be flexible. In preferred embodiments, an implant dispenser includes a first arm engaging a top element of the intervertebral disc implant, a second arm engaging a bottom element of the intervertebral disc implant, and a connecting element for interconnecting the first and second arms. The connecting element is preferably flexible for enabling the first and second arms to move away from one another for releasing the intervertebral disc.

Asserted Claim	Prior Art
	Dudasik at 6:42-49. Referring to FIGS. 28A-28C, the implant dispenser 456 is preferably flexible and includes a superior arm 458 for engaging a top element of an intervertebral disc implant and an inferior arm 460 for engaging a bottom element of an intervertebral disc implant. The superior and inferior arms preferably have lateral notches 462 formed therein for receiving the teeth of the top and bottom elements, as will be described in more detail herein. The implant dispenser also preferably includes a central support 464 that enables the superior and inferior arms 458, 460 to move away from one another for releasing an intervertebral disc implant. <i>Id.</i> at 24:34-49. Similarly, U.S. Patent Publication No. US 2008/0200984 (“Jodaitis”) describes detachable insertion assemblies for intervertebral disc prosthesis insertion where an insertion adapter (106) retains a prosthesis (104) but has tabs that can be squeezed to slightly open the adapter in order to release it from the prosthesis.

Asserted Claim	Prior Art
	 FIG. 2 Jodaitis explains that “[a]ctuating a removal tool (160) by squeezing handles (170) of the removal tool (160) may pivot the tangs (164) of the insertion adapter (106) around the hinge pin (172), causing the jaws (121) to release the plates and the mounting dogs (120) to release their grip on the posts (124) and disengage from the recesses (122).” <i>Id.</i> Jodaitis further teaches an alternative embodiment “comprising a flexible portion at which the tangs (164) articulate,” where “squeezing the tangs (164) will cause the flexible body to flex, the tangs (164) to articulate, the jaws (121) to release the plates, and the mounting dogs (120) to release their grip on the posts (124) and disengage from the recesses (122).” <i>Id.</i> Furthermore, detachable structures with deformable tabs that are pressed or squeezed together in order to slightly open the structure for release were generally ubiquitous and well-known. As one example, as early as 1967, Bubb (US 3,322,381) disclosed a display device incorporating a clamping

Asserted Claim	Prior Art
	member with two resilient leg portions defining a channel. Squeezing the prongs of the clamping member moves the leg portions relative to each other, narrowing or widening a slot to engage or release a supported element. <i>See, e.g.:</i>  Similarly, Jackowski (US 5,568,946) titled "Squeeze-to-Release Quick Connector with Snap-In Retainer," discloses a quick connector (50) having pads (120, 122) which could be squeezed together in order to slightly deform and open latch arms (108, 110), allowing retainer (54) to be removed from receiver (70). <i>See, e.g.</i> Jackowski at 3:13-56; 5:53-6:32; <i>see also id.</i> at Claim 1.

Asserted Claim	Prior Art
	 FIG-2

Asserted Claim	Prior Art
	 FIG-4 It would have been obvious to include a deformable tab structure for slightly opening, such as those disclosed by Dudasik, Jodaitis, Bubbs, and/or Jackowski, with a screw locking bracket as taught by Waugh. Doing so would have facilitated removal of the screw locking bracket in situations where the bracket ought to be removed, improving safety and patient outcomes, while keeping the form factor of the implant and screw locking bracket small. To the extent Moskowitz argues this limitation is not disclosed or rendered obvious by Waugh, it would have been obvious to a person having ordinary skill in the art to modify Waugh or combine it with any of the other prior art references identified in Defendants' Invalidity Contentions Cover Pleading that disclose this limitation.
Claim 11	
[11] The apparatus of claim 1, wherein the screw locking bracket is	Waugh discloses or renders obvious claim 1. See [1A]-[1J]. Waugh discloses or renders obvious this limitation.

Asserted Claim	Prior Art
configured to be press fit to the intervertebral cage.	Waugh teaches that its faceplates are “snap-on” features and are therefore configured to be press fit to the intervertebral cage. For example, Waugh teaches: The faceplate 104 may be configured to snap onto the implant member 102, allowing simple installation once the anchor members 106 are placed during a surgical procedure. As used herein, the terms “snap onto,” and “snaps onto” are intended to mean attachment using features of the different components without the use of separate fasteners, such as screws or staples. To do this, in the embodiment shown, the locking tabs 130 may be configured to elastically deform when placing the faceplate 104 on the implant member 102, and then snap into place, thereby securing the faceplate 104 onto the implant member 102 and physically limiting back-out of the anchor members 106 from the implant member 102. Waugh ¶ [0035] (emphasis added). Once there, the faceplate 104 snaps onto the implant member 102 because the locking tabs 130 deform toward their original positions as the locking protrusions 146 at least partially snap into the connecting impressions 124. The locking surface 150 on the locking protrusion 146 engages against the connecting impressions 124 and resists detaching the faceplate 104 from the implant member 102. Waugh ¶ [0058] (emphasis added). The locking tabs 424, like those described with respect to other embodiments herein, may be configured to elastically deform when placing the face plate 404 on the implant member 402, and then snap into

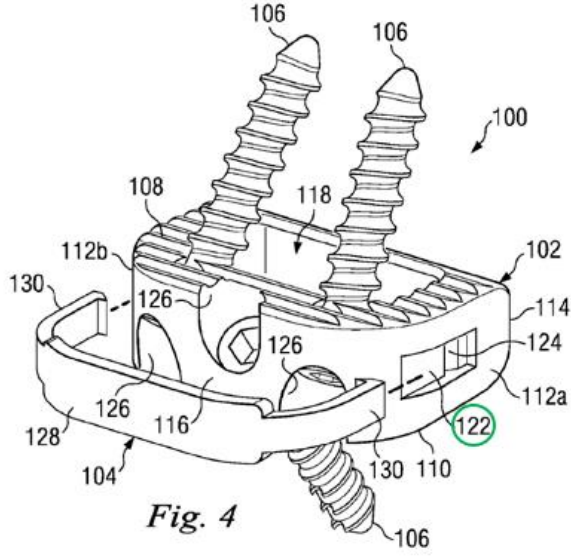
Asserted Claim	Prior Art
	place, thereby securing the face plate 404 onto the implant member 402 and physically limiting back-out of the anchor members from the implant member 402. <i>Id.</i> ¶ [0054]. The locking tabs 322, like those described with respect to other embodiments herein, may be configured to elastically deform when placing the face plate 304 on the implant member 302, and then snap into place, thereby securing the face plate 304 onto the implant member 302 and physically limiting back-out of the anchor members from the implant member 302. <i>Id.</i> ¶ [0048]; <i>see also id.</i> ¶¶ [0043], [0006], [0008]. To the extent Moskowitz argues this limitation is not disclosed or rendered obvious by Waugh, it would have been obvious to a person having ordinary skill in the art to modify Waugh or combine it with any of the other prior art references identified in Defendants’ Invalidity Contentions Cover Pleading that disclose this limitation.
Claim 12	
[12A] A 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	Waugh discloses or renders obvious this limitation. Waugh’s discloses “implantable members” 102, 202, 302, 402 that are intervertebral combination internal screw guide and fixation apparatuses configured to be inserted into a disc space between a first vertebral body and a second vertebral body and to provide vertebral fusion of the first vertebral body to the second vertebral body via biological bone fusion and screw fusion. Waugh discloses that the “implant member” or spacer is designed for insertion between adjacent vertebrae following removal of a degenerative disc, to secure and maintain the proper relative positioning of the vertebrae. <i>See, e.g.,</i> Waugh ¶¶ [0002]-[0006], [0027].

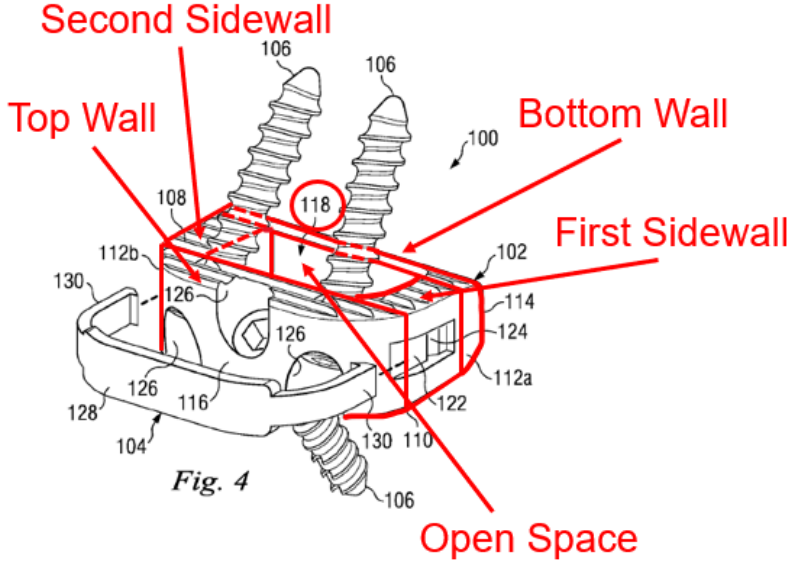
Asserted Claim	Prior Art
and screw fusion, the apparatus comprising:	<i>Fig. 2</i> <i>Id.</i> at Fig. 2. Waugh teaches that “[t]he spacers may be implanted between the vertebrae 14, 16 using any common approach, including an anterior approach, a posterior approach, a posterior transforaminal approach, a far lateral approach, a direct lateral approach, among others.” <i>Id.</i> ¶ [0056]. As shown in figure 4 below, Waugh’s “implantable device 100” includes “an implant member 102, a face plate 104, and anchor members 106.” <i>Id.</i> ¶ [0028]. The “anchor members 106,” (i.e., screws), “extend through the anchor member apertures 126 in the front surface 116 and upper and lower surfaces 108, 110 and out the hollow center 118 and into the bearing endplates of the vertebrae 14, 16,” thereby securing the implant entirely within the disc space. <i>Id.</i> ¶ [0030].

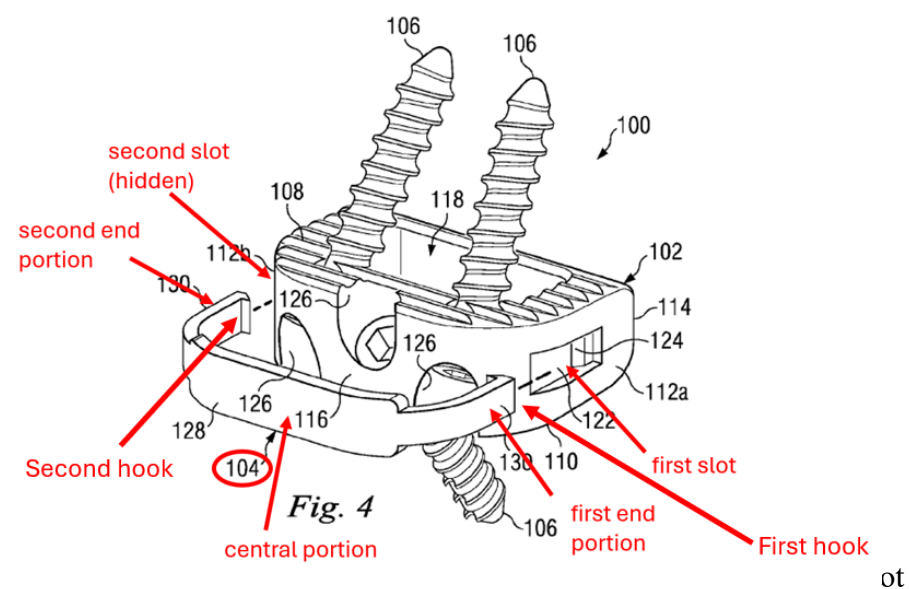
Asserted Claim	Prior Art
	Fig. 4 <i>Id.</i> at Fig. 4. Waugh’s “hollow center 118 may allow placement of bone growth materials, such as allograft to promote bonding and fusion of the implantable device 100 to the adjacent vertebrae.” <i>Id.</i> ¶ [0028]; <i>see also id.</i> ¶ [0062] (“In some circumstances, it is advantageous to pack all or a portion of the hollow center of the implant member with a suitable osteogenetic material or therapeutic composition.”). Thus Waugh teaches “A 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[.]” To the extent Moskowitz contends the preamble is not limiting, Waugh does not need to teach it. To the extent Moskowitz argues this limitation is not disclosed or rendered obvious by Waugh, it would have been obvious to a person having ordinary skill in the art to modify Waugh or combine it

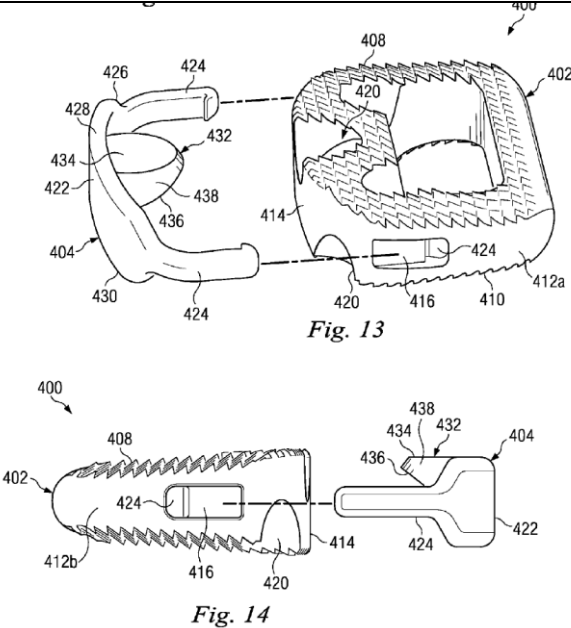
Asserted Claim	Prior Art
	with any of the other prior art references identified in Defendants' Invalidity Contentions Cover Pleading that disclose this limitation.
[12B] an intervertebral cage including: a top wall, a bottom wall, and two sidewalls defining an open space capable of receiving bone filling for the biological bone fusion;	Waugh discloses or renders obvious this limitation. <i>See</i> [1B]. To the extent Moskowitz argues this limitation is not disclosed or rendered obvious by Waugh, it would have been obvious to a person having ordinary skill in the art to modify Waugh or combine it with any of the other prior art references identified in Defendants' Invalidity Contentions Cover Pleading that disclose this limitation.
[12C] an internal screw guide having a screw entrance portion and an internal bore portion, wherein the screw entrance portion is larger than and coaxial with the internal bore and is formed at least partially in the top surface of the top wall as viewed from the top, wherein the internal bore portion has an entry opening formed only in a top surface of the top wall as viewed from the top and has an exit opening formed at least partially in a bottom surface of the top wall and at least partially in a side surface of the top wall;	Waugh discloses or renders obvious this limitation. <i>See</i> [1C]. To the extent Moskowitz argues this limitation is not disclosed or rendered obvious by Waugh, it would have been obvious to a person having ordinary skill in the art to modify Waugh or combine it with any of the other prior art references identified in Defendants' Invalidity Contentions Cover Pleading that disclose this limitation.

Asserted Claim	Prior Art
[12D] a second internal screw guide having a second screw entrance portion and a second internal bore portion, wherein the second screw entrance portion is larger than and coaxial with the second internal bore and is formed at least partially in the top surface of the top wall as viewed from the top, wherein the second internal bore portion has a second entry opening formed only in the top surface of the top wall as viewed from the top and has a 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, and wherein the internal screw guide and the second internal screw guide are angled to orient a first screw member and a second member screw bi-directionally in opposite directions;	Waugh discloses or renders obvious this limitation. <i>See</i> [1D]. To the extent Moskowitz argues this limitation is not disclosed or rendered obvious by Waugh, it would have been obvious to a person having ordinary skill in the art to modify Waugh or combine it with any of the other prior art references identified in Defendants' Invalidity Contentions Cover Pleading that disclose this limitation.

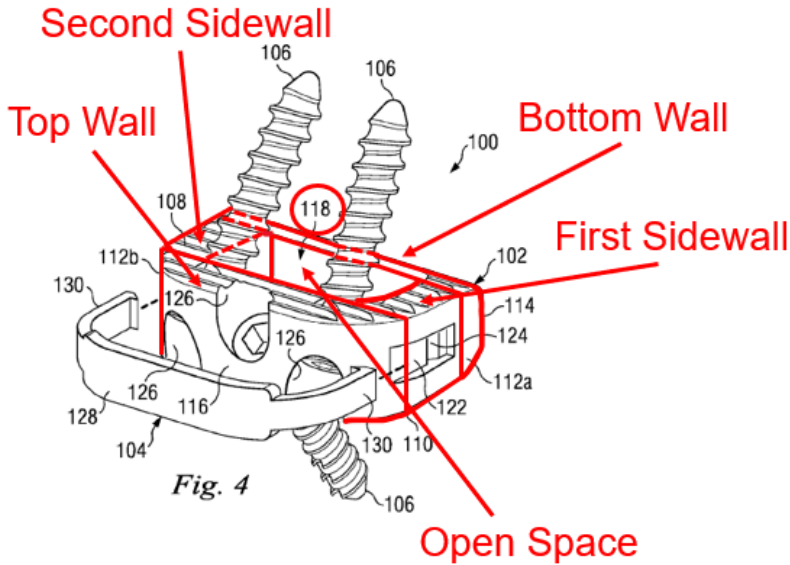
Asserted Claim	Prior Art
[12E] a first slot extending at least partially into a first sidewall of the two sidewalls; a second slot extending at least partially into a second sidewall of the two sidewalls, wherein the second slot is positioned opposite of the first slot; wherein the first slot is positioned along a first centerline axis that bisects the first side wall and is positioned nearer a top of the intervertebral cage than a bottom of the intervertebral cage, wherein the second slot is positioned along a second centerline axis that bisects the second side wall and is positioned nearer the top of the intervertebral cage than the bottom of the intervertebral cage,	Waugh discloses or renders obvious this limitation. Waugh teaches: The side surfaces 112 a-b each include a recessed slot 122 (best seen in FIG. 4) configured to cooperate with an insertion tool (described below) that selectively connects to the implant member 102. Within the slot 122, attachment features, such as connecting impressions 124 (FIG. 4), are configured to provide a secure connection with the faceplate 104. Waugh ¶ [0029]; <i>see also id.</i> ¶ [0033], [0038], [0058] (further discussing slots 122). Waugh's slots 122 are shown, for example, in Fig 4:  <i>Id.</i> at Fig. 4 (annotated).

Asserted Claim	Prior Art
	Waugh's slots 122 extend at least partially into the two sidewalls, and the second slot is positioned opposite of the first slot. And the first and second slots are positioned nearer a top of the intervertebral cage than a bottom of the intervertebral cage. 

Asserted Claim	Prior Art
	 Fig. 4 (annotated) shows a mechanical assembly 100. The assembly includes a base 102 with a central portion 104 (circled in red) and two end portions 106. A first end portion 106 is shown with a first hook 110 and a first slot 112a. A second end portion 106 is shown with a second hook 116 and a second slot 112b (labeled as hidden). The assembly also includes a central portion 104 with a central slot 118. Other labeled parts include 108, 114, 124, 126, 128, 130, and 132. Red arrows point to the second slot (hidden), second end portion, Second hook, central portion, first slot, and First hook. Waugh at Fig. 4 (annotated).

Asserted Claim	Prior Art
	 <i>Id.</i> at Figs. 13-14. Further, as shown in the images above, the first slot is positioned along a first centerline axis that bisects the first side wall, and the second slot is positioned along a second centerline axis that bisects the second side wall. Waugh thus teaches “a first slot extending at least partially into a first sidewall of the two sidewalls; a second slot extending at least partially into a 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 is positioned nearer a top of the intervertebral cage than a bottom of the intervertebral cage, wherein the second slot is positioned along a second centerline axis that bisects the second side wall and is positioned nearer the top of the intervertebral cage than the bottom of the intervertebral cage[.]”

Asserted Claim	Prior Art
	To the extent Moskowitz argues this limitation is not disclosed or rendered obvious by Waugh, it would have been obvious to a person having ordinary skill in the art to modify Waugh or combine it with any of the other prior art references identified in Defendants' Invalidity Contentions Cover Pleading that disclose this limitation.
[12F] wherein the side surface and the second side surface of the top wall are patterned with a plurality of surface features to create rough side surfaces, wherein at least some of the plurality of surface features are positioned on the side surface between the top wall and the exit opening, and	Waugh discloses or renders obvious this limitation. <i>See</i> [1F]. To the extent Moskowitz argues this limitation is not disclosed or rendered obvious by Waugh, it would have been obvious to a person having ordinary skill in the art to modify Waugh or combine it with any of the other prior art references identified in Defendants' Invalidity Contentions Cover Pleading that disclose this limitation.
[12G] wherein the top wall, the bottom wall, and the sidewalls are integrally formed;	Waugh discloses or renders obvious this limitation. Waugh shows its "implantable members" 102, 202, 302, 402 as being constructed as one single piece.

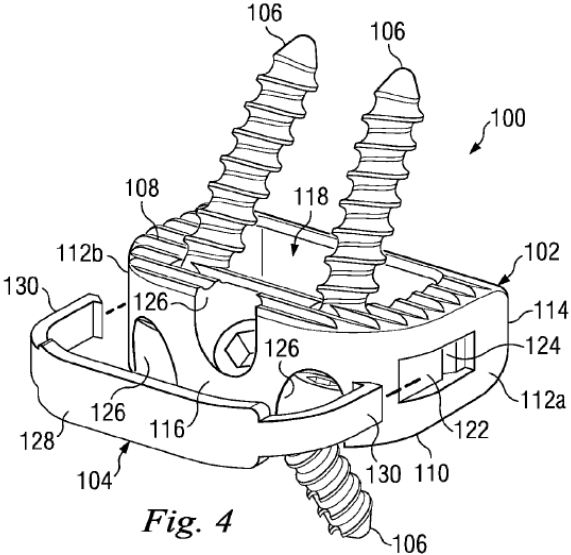
Asserted Claim	Prior Art
	 Fig. 4 Waugh at Fig. 4 (annotated). <i>See also, e.g.: id.</i> at Figs. 3, 7, 9, 13. Thus Waugh teaches “wherein the top wall, the bottom wall, and the sidewalls are integrally formed.” To the extent Moskowitz argues this limitation is not disclosed or rendered obvious by Waugh, it would have been obvious to a person having ordinary skill in the art to modify Waugh or combine it with any of the other prior art references identified in Defendants’ Invalidity Contentions Cover Pleading that disclose this limitation.
[12H] a first screw having a first screw head and a first screw threaded portion, wherein the first screw is sized to be positioned in the internal screw guide with	Waugh discloses or renders obvious this limitation. <i>See</i> [1H]. To the extent Moskowitz argues this limitation is not disclosed or rendered obvious by Waugh, it would have been obvious to a person having ordinary skill in the art to modify Waugh or combine it with any of the other prior art references identified in Defendants’ Invalidity Contentions Cover Pleading that disclose this limitation.

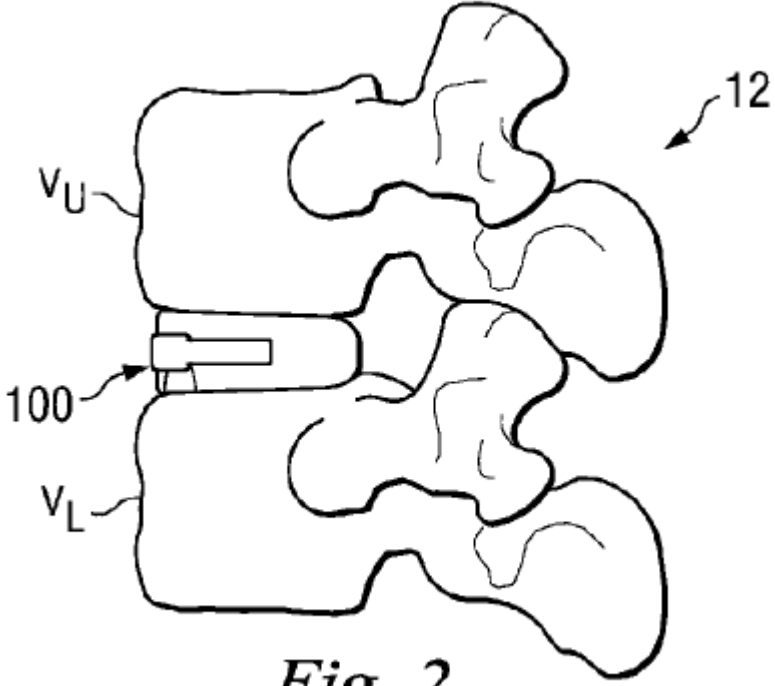
Asserted Claim	Prior Art
the first screw head in the screw entrance portion;	
[12I] a second screw having a second screw head and a second screw threaded portion, wherein the second screw is sized to be positioned in the second internal screw guide with the second screw head in the second screw entrance portion; and	Waugh discloses or renders obvious this limitation. <i>See</i> [1I]. To the extent Moskowitz argues this limitation is not disclosed or rendered obvious by Waugh, it would have been obvious to a person having ordinary skill in the art to modify Waugh or combine it with any of the other prior art references identified in Defendants' Invalidity Contentions Cover Pleading that disclose this limitation.
[12J] a screw locking bracket having a first end portion sized and positioned to be inserted in the first slot, a second end portion sized and positioned to be inserted in the second slot and a central portion extending between the first end portion and the second end portion, wherein when the screw locking bracket is connected to the intervertebral cage with the first end portion in the first slot and the second end portion in the second slot,	Waugh discloses or renders obvious this limitation. <i>See</i> [1J]. To the extent Moskowitz argues this limitation is not disclosed or rendered obvious by Waugh, it would have been obvious to a person having ordinary skill in the art to modify Waugh or combine it with any of the other prior art references identified in Defendants' Invalidity Contentions Cover Pleading that disclose this limitation.

Asserted Claim	Prior Art
the central portion partially blocks the screw entrance portion and the second screw entrance portion so as to retain the first and second screws in the internal screw guide and the second internal screw guide while leaving at least a portion of the screw entrance portion and the second screw entrance portion at least partially exposed.	
Claim 22	
[22] The apparatus of claim 12, wherein the screw locking bracket is configured to be press fit to the intervertebral cage.	Waugh discloses or renders obvious claim 12. <i>See</i> [12A]-[12J]. Waugh discloses or renders obvious this limitation. <i>See</i> [11] above. Waugh teaches that its faceplates (screw locking bracket) are “snap-on” features and are therefore configured to be press fit to the intervertebral cage. For example, Waugh teaches: The faceplate 104 may be configured to snap onto the implant member 102, allowing simple installation once the anchor members 106 are placed during a surgical procedure. As used herein, the terms “snap onto,” and “snaps onto” are intended to mean attachment using features of the different components without the use of separate fasteners, such as screws or staples. To do this, in the embodiment shown, the locking tabs 130 may be configured to elastically deform when placing the faceplate 104 on the implant

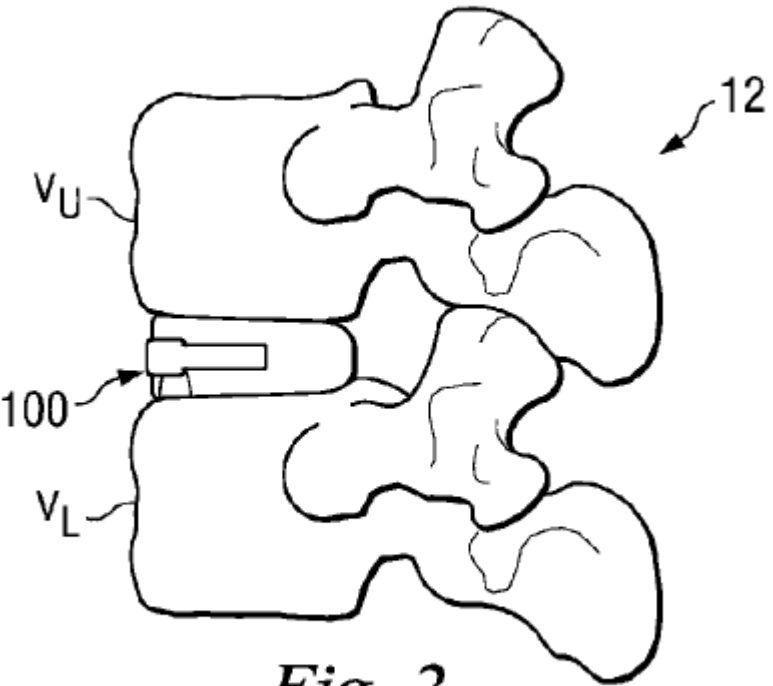
Asserted Claim	Prior Art
	member 102, and then snap into place, thereby securing the faceplate 104 onto the implant member 102 and physically limiting back-out of the anchor members 106 from the implant member 102. Waugh ¶ [0035] (emphasis added). Once there, the faceplate 104 snaps onto the implant member 102 because the locking tabs 130 deform toward their original positions as the locking protrusions 146 at least partially snap into the connecting impressions 124. The locking surface 150 on the locking protrusion 146 engages against the connecting impressions 124 and resists detaching the faceplate 104 from the implant member 102. Waugh ¶ [0058] (emphasis added). The locking tabs 424, like those described with respect to other embodiments herein, may be configured to elastically deform when placing the face plate 404 on the implant member 402, and then snap into place, thereby securing the face plate 404 onto the implant member 402 and physically limiting back-out of the anchor members from the implant member 402. <i>Id.</i> ¶ [0054]. The locking tabs 322, like those described with respect to other embodiments herein, may be configured to elastically deform when placing the face plate 304 on the implant member 302, and then snap into place, thereby securing the face plate 304 onto the implant member 302 and physically limiting back-out of the anchor members from the implant member 302.

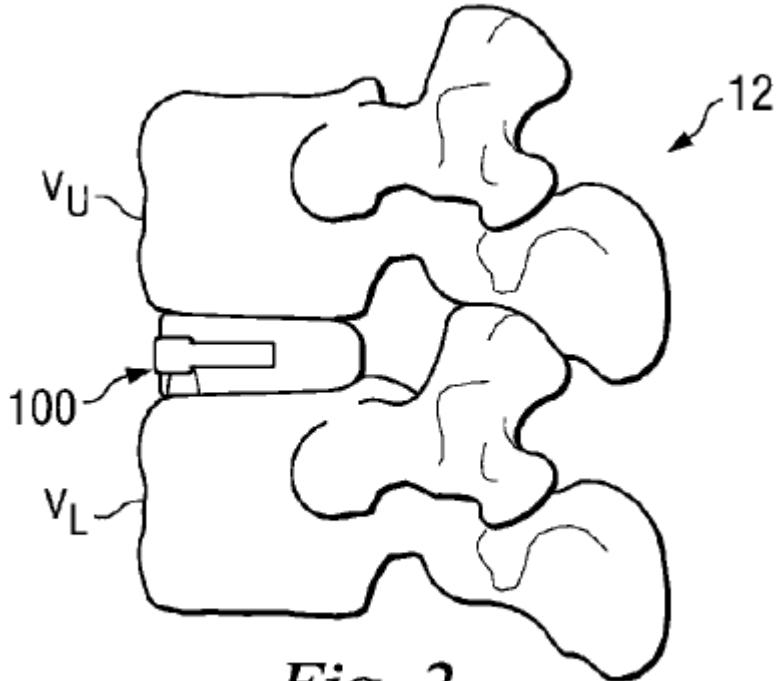
Asserted Claim	Prior Art
	<i>Id.</i> ¶ [0048]; <i>see also id.</i> ¶¶ [0043], [0006], [0008]. To the extent Moskowitz argues this limitation is not disclosed or rendered obvious by Waugh, it would have been obvious to a person having ordinary skill in the art to modify Waugh or combine it with any of the other prior art references identified in Defendants’ Invalidity Contentions Cover Pleading that disclose this limitation.
Claim 24	
[24A] A method of inserting a bi-directional fixating transvertebral (BDFT) screw/cage apparatus between a first vertebral body and a second vertebral body, the method including: inserting an intervertebral cage into a midline of a disc space between the first vertebral body and the second vertebral body until the intervertebral cage is one of flush and countersunk relative to the first vertebral body and the second vertebral body,	Waugh discloses or renders obvious this limitation. Waugh teaches a method of inserting a bi-directional fixating transvertebral (BDFT) screw/cage apparatus between a first and second vertebral body. For example, Waugh teaches: A method of implantation is described below with reference to the first embodiment of the implantable device 100 disclosed herein. However, the method of implantation is intended to be equally applicable to all the disclosed embodiments. Waugh [0055]; <i>see also id.</i> ¶¶ [0055]-[0062] (further describing implantation method). Waugh’s “implantable devices” 100, 200, 300, and 400 are bi-directional fixating transvertebral (BDFT) screw/cage apparatuses. As shown in figure 4 below, Waugh’s “implantable device 100” includes “an implant member 102, a face plate 104, and anchor members 106.” <i>Id.</i> ¶ [0028]. The “anchor members 106,” (i.e., screws), “extend through the anchor member apertures 126 in the front surface 116 and upper and lower surfaces 108, 110 and out the hollow center 118 and into the bearing endplates of the vertebrae 14, 16,” thereby securing the implant between a first vertebral body and a second vertebral body within the disc space. <i>Id.</i> ¶ [0030].

Asserted Claim	Prior Art
	 <i>Fig. 4</i> <i>Id.</i> at Fig. 4.

Asserted Claim	Prior Art
	 <i>Fig. 2</i> <i>Id.</i> at Fig. 2. Waugh's "hollow center 118 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> ¶ [0028]; <i>see also id.</i> ¶ [0062] ("In some circumstances, it is advantageous to pack all or a portion of the hollow center of the implant member with a suitable osteogenetic material or therapeutic composition."). Waugh's implantable device is therefore a fixating BDFT screw/cage apparatus.

Asserted Claim	Prior Art
	To the extent Moskowitz contends the preamble is not limiting, Waugh does not need to teach it. Waugh further discloses inserting an intervertebral cage into a midline of a disc space between a first vertebral body and a second intervertebral body: The spacers may be implanted between the vertebrae 14, 16 using any common approach, including an anterior approach, a posterior approach, a posterior transforaminal approach, a far lateral approach, a direct lateral approach, among others. According to at least one of these approaches, an incision, such as a midline incision, may be made in the patient's back and some or all of the affected disc and surrounding tissue may be removed via the foramina. The endplate surface of the vertebra 14 may be milled, rasped, or otherwise resected to match the profile of the upper surface 108 of the implant member 102, to normalize stress distributions on the endplate surface of the vertebra 14, and/or to provide initial fixation prior to bone ingrowth. <i>Id.</i> ¶ [0056]. As a POSITA would have understood, it would have been obvious to insert the intervertebral cage into the midline of a disc space between vertebral bodies, given the disclosure of a midline incision.

Asserted Claim	Prior Art
	 <i>Fig. 2</i> <i>Id.</i> at Fig. 2. Further, Waugh teaches inserting an intervertebral cage until the intervertebral cage is one of flush and countersunk relative to the first vertebral body and the second vertebral body. Waugh's "implantable device 100" is sized to fit like a natural intervertebral disc between adjacent intervertebral bodies. Waugh ¶ [0027], Fig. 2. Waugh expressly states that the implantable device

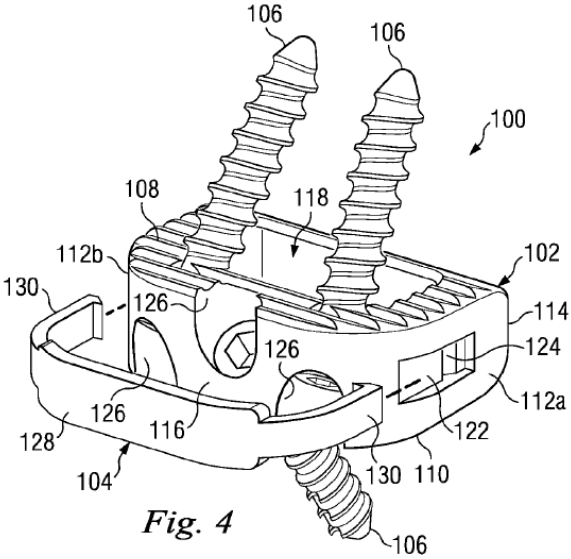
Asserted Claim	Prior Art
	100 “is capable of being entirely contained within the disc space.” <i>Id.</i> ¶ [0036]. An example of such an implant is shown in figure 2 (reproduced below) which discloses “two vertebrae with an exemplary implantable device disposed therebetween.” <i>Id.</i> ¶ [0011]. Waugh thus discloses this additional limitation.  <i>Fig. 2</i> <i>Id.</i> at Fig. 2.

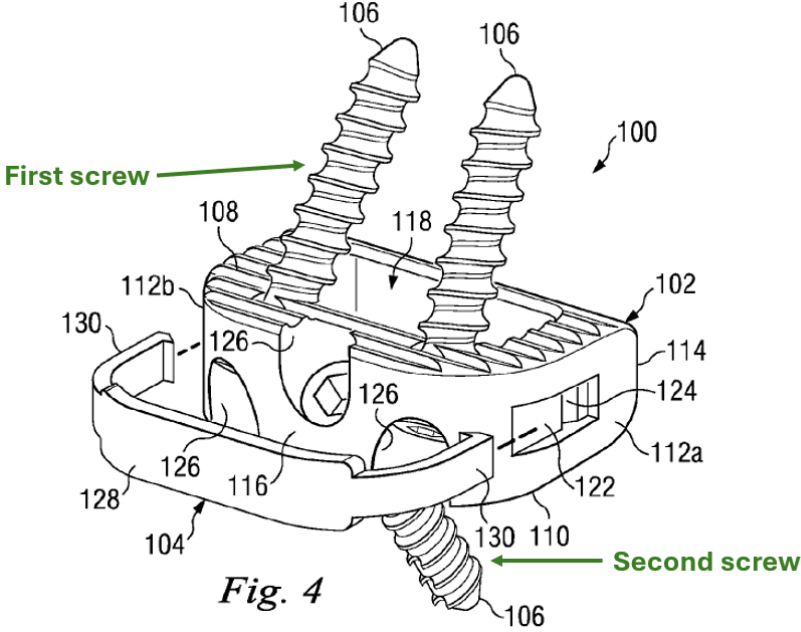
Asserted Claim	Prior Art
	To the extent Moskowitz argues this limitation is not disclosed or rendered obvious by Waugh, it would have been obvious to a person having ordinary skill in the art to modify Waugh or combine it with any of the other prior art references identified in Defendants' Invalidity Contentions Cover Pleading that disclose this limitation.
[24B] wherein the intervertebral cage includes: a top wall, a bottom wall, and two sidewalls defining an open space capable of receiving bone filling for the biological bone fusion;	Waugh discloses or renders obvious this limitation. <i>See</i> [1B], [12B]. To the extent Moskowitz argues this limitation is not disclosed or rendered obvious by Waugh, it would have been obvious to a person having ordinary skill in the art to modify Waugh or combine it with any of the other prior art references identified in Defendants' Invalidity Contentions Cover Pleading that disclose this limitation.
[24C] an internal screw guide having a screw entrance portion and an internal bore portion, wherein the screw entrance portion is larger than and coaxial with the internal bore and is formed at least partially in the top surface of the top wall as viewed from the top, wherein the internal bore portion has an entry opening formed only in a top surface of the top wall as viewed from the top and has an exit opening formed at least partially in a bottom surface of the top	Waugh discloses or renders obvious this limitation. <i>See</i> [1C], [12C]. To the extent Moskowitz argues this limitation is not disclosed or rendered obvious by Waugh, it would have been obvious to a person having ordinary skill in the art to modify Waugh or combine it with any of the other prior art references identified in Defendants' Invalidity Contentions Cover Pleading that disclose this limitation.

Asserted Claim	Prior Art
wall and at least partially in a side surface of the top wall;	
[24D] a second internal screw guide having a second screw entrance portion and a second internal bore portion, wherein the second screw entrance portion is larger than and coaxial with the second internal bore and is formed at least partially in the top surface of the top wall as viewed from the top, wherein the second internal bore portion has a second entry opening formed only in the top surface of the top wall as viewed from the top and has a 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, and wherein the internal screw guide and the second internal screw guide are angled to orient a first screw member and a second	Waugh discloses or renders obvious this limitation. <i>See</i> [1D] and [12D]. To the extent Moskowitz argues this limitation is not disclosed or rendered obvious by Waugh, it would have been obvious to a person having ordinary skill in the art to modify Waugh or combine it with any of the other prior art references identified in Defendants' Invalidity Contentions Cover Pleading that disclose this limitation.

Asserted Claim	Prior Art
member screw bi-directionally in opposite directions;	
[24E] a first slot extending at least partially into a first sidewall of the two sidewalls; a second slot extending at least partially into a 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 is positioned nearer a top of the intervertebral cage than a bottom of the intervertebral cage, wherein the second slot is positioned along a second centerline axis that bisects the second side wall and is positioned nearer the top of the intervertebral cage than the bottom of the intervertebral cage,	Waugh discloses or renders obvious this limitation. <i>See</i> [12E], [1E]. To the extent Moskowitz argues this limitation is not disclosed or rendered obvious by Waugh, it would have been obvious to a person having ordinary skill in the art to modify Waugh or combine it with any of the other prior art references identified in Defendants’ Invalidity Contentions Cover Pleading that disclose this limitation.

Asserted Claim	Prior Art
[24F] wherein the side surface and the second side surface of the top wall are patterned with a plurality of surface features to create rough side surfaces, wherein at least some of the plurality of surface features are positioned on the side surface between the top wall and the exit opening, and	Waugh discloses or renders obvious this limitation. <i>See</i> [1F] and [12F]. To the extent Moskowitz argues this limitation is not disclosed or rendered obvious by Waugh, it would have been obvious to a person having ordinary skill in the art to modify Waugh or combine it with any of the other prior art references identified in Defendants' Invalidity Contentions Cover Pleading that disclose this limitation.
[24G] wherein the top wall, the bottom wall, and the sidewalls are integrally formed; and	Waugh discloses or renders obvious this limitation. <i>See</i> [12G], [1G]. To the extent Moskowitz argues this limitation is not disclosed or rendered obvious by Waugh, it would have been obvious to a person having ordinary skill in the art to modify Waugh or combine it with any of the other prior art references identified in Defendants' Invalidity Contentions Cover Pleading that disclose this limitation.
[24H] inserting a first screw into the internal screw guide of the intervertebral cage;	Waugh discloses or renders obvious this limitation. Waugh teaches: In yet another exemplary aspect, the present disclosure is directed to a method including introducing an implant member to a vertebral segment comprising an upper and a lower vertebra. Anchor members [screws] may be inserted through anchor member apertures in the implant member, the anchor members penetrating the upper and the lower vertebrae. Waugh ¶ [0008] (emphasis added). In addition, Waugh teaches:

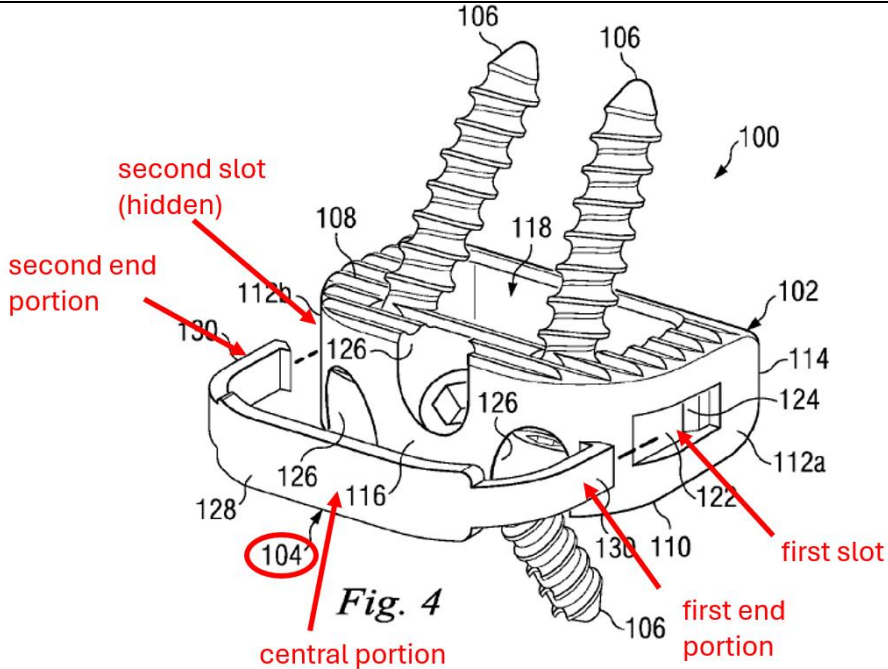
Asserted Claim	Prior Art
	Once properly positioned, the insertion tool 152 may be removed from the implant member 102 and anchor members 106 may be driven through the anchor member apertures 126 into the vertebral endplates. Alternatively, the anchor members 106 may be driven into the anchor member apertures 126 before the insertion tool 152 is removed. <i>Id.</i> ¶ [0057] (emphasis added). As shown in figure 4 below, Waugh’s “implantable device 100” includes “an implant member 102, a face plate 104, and anchor members 106.” <i>Id.</i> ¶ [0028]. The “anchor members 106,” (i.e., screws), “extend through the anchor member apertures 126 in the front surface 116 and upper and lower surfaces 108, 110 and out the hollow center 118 and into the bearing endplates of the vertebrae 14, 16,” thereby securing the implant entirely within the disc space. <i>Id.</i> ¶ [0030].  <i>Fig. 4</i> <i>Id.</i> at Fig. 4.

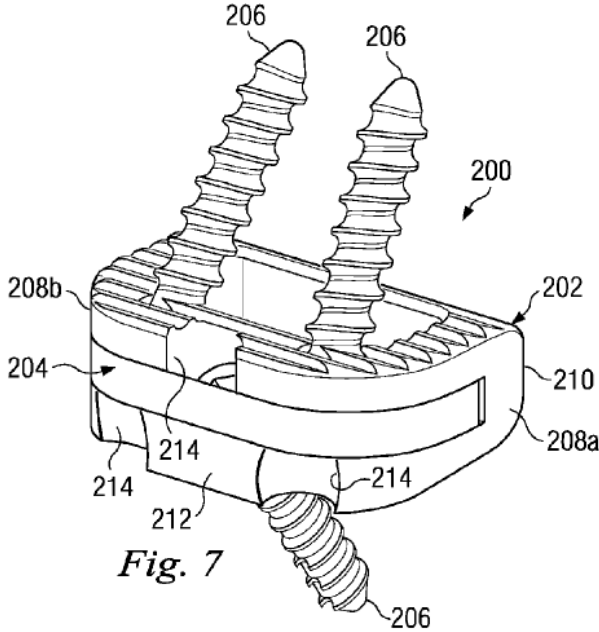
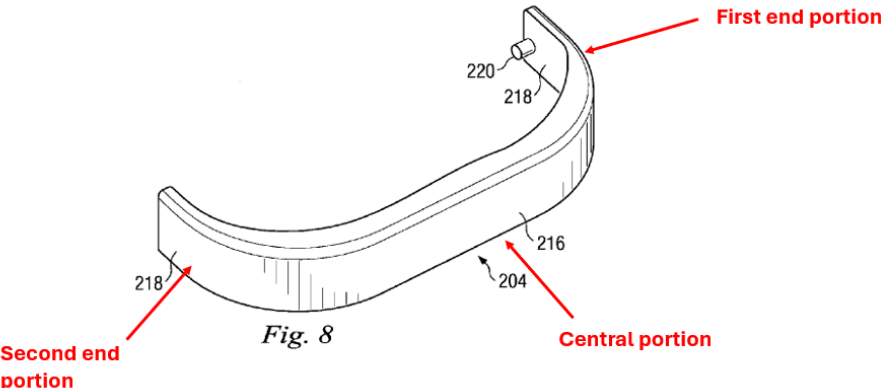
Asserted Claim	Prior Art
	The embodiments in Waugh are shown to use anchor members (screws) and include a first screw that is inserted into the internal screw guide of the intervertebral cage.  <i>Fig. 4</i> <i>Id.</i> annotated; see also, e.g., <i>id.</i> at Figs. 3, 7, 9-11 (showing faceplate for covering screws) 12-14 (showing the screw channels for receiving screws and faceplate for covering screws). Thus Waugh teaches “inserting a first screw into the internal screw guide of the intervertebral cage.” To the extent Moskowitz argues this limitation is not disclosed or rendered obvious by Waugh, it would have been obvious to a person having ordinary skill in the art to modify Waugh or combine it with any of the other prior art references identified in Defendants’ Invalidity Contentions Cover Pleading that disclose this limitation.

Asserted Claim	Prior Art
[24I] inserting a second screw into the second internal screw guide of the intervertebral cage;	Waugh discloses or renders obvious this limitation. As discussed in [24H] above, Waugh teaches a method in which “Anchor members [screws] may be inserted through anchor member apertures in the implant member, the anchor members penetrating the upper and the lower vertebrae.” Waugh ¶¶ [0008], [0057]; see [24H]. Further, each of the embodiments shown in Waugh have more than one screw and more than one internal screw guide. Fig. 4 <i>Id.</i> at Fig. 4 annotated. See also, e.g., <i>id.</i> at Figs. 3, 7 (showing multiple screws and multiple screw channels); Figs. 9-11 (showing faceplate for covering screws) 12-14 (showing the screw channels for receiving screws and faceplate for covering screws).

Asserted Claim	Prior Art
	Thus Waugh teaches “inserting a second screw into the second internal screw guide of the intervertebral cage.” To the extent Moskowitz argues this limitation is not disclosed or rendered obvious by Waugh, it would have been obvious to a person having ordinary skill in the art to modify Waugh or combine it with any of the other prior art references identified in Defendants’ Invalidity Contentions Cover Pleading that disclose this limitation.
[24J] screwing the first screw and the second screw into the first vertebral body and the second vertebral body respectively; and	Waugh discloses or renders obvious this limitation. Waugh teaches screwing the anchor members (first and second screws) into the first and second vertebral bodies. <i>See</i> [24H], [24I]. Waugh teaches: Once properly positioned, the insertion tool 152 may be removed from the implant member 102 and anchor members 106 may be driven through the anchor member apertures 126 into the vertebral endplates. Alternatively, the anchor members 106 may be driven into the anchor member apertures 126 before the insertion tool 152 is removed. Once the anchor members 106 are driven into the bone, the anchor member apertures 126 may be covered with the faceplate 104 to prevent anchor member back-out. Waugh ¶ [0057] (emphasis added). Waugh further teaches: Anchor members may be inserted through anchor member apertures in the implant member, the anchor members penetrating the upper and the lower vertebrae. <i>Id.</i> ¶ [0008] (emphasis added). To the extent Moskowitz argues this limitation is not disclosed or rendered obvious by Waugh, it would have been obvious to a person having ordinary skill in the art to modify Waugh or combine it

Asserted Claim	Prior Art
	with any of the other prior art references identified in Defendants’ Invalidity Contentions Cover Pleading that disclose this limitation.
[24K] locking the first screw and the second screw in the intervertebral cage using a screw locking bracket coupled to the intervertebral cage by positioning a first end portion of the screw locking bracket in the first slot, a second end portion of the screw locking bracket in the second slot and a central portion of the screw locking bracket extending between the first end portion and the second end portion across at least part of the top surface of the top wall such that the central portion partially blocks the screw entrance portion and the second screw entrance portion so as to retain the first and second screws in the internal screw guide and the second internal screw guide while leaving at least a portion of the screw entrance portion and the second screw entrance	Waugh discloses or renders obvious this limitation. As discussed in [1J], [2], [3], [9], and [11] above, Waugh teaches using a faceplate (screw locking bracket) coupled to the implant member (intervertebral cage) to lock the first screw and the second screw. See [1J], [2], [3], [9], [11]. For example, Waugh teaches a “faceplate 104” (screw locking bracket) that has end portions that are inserted in slots on either side of the intervertebral cage of Waugh and a central portion of the screw locking bracket extends between the first end portion and the second end portion across at least part of the top surface of the top wall such that the central portion partially blocks the screw entrance portion and the second screw entrance portion so as to retain the first and second screws in the internal screw guide and the second internal screw guide while leaving at least a portion of the screw entrance portion and the second screw entrance portion at least partially exposed. For example, Waugh teaches: The side surfaces 112 a-b each include a recessed slot 122 (best seen in FIG. 4) configured to cooperate with an insertion tool (described below) that selectively connects to the implant member 102. Within the slot 122, attachment features, such as connecting impressions 124 (FIG. 4), are configured to provide a secure connection with the faceplate 104. Waugh ¶ [0029]. The relevant structures are shown in the Figures, including in Fig. 4:

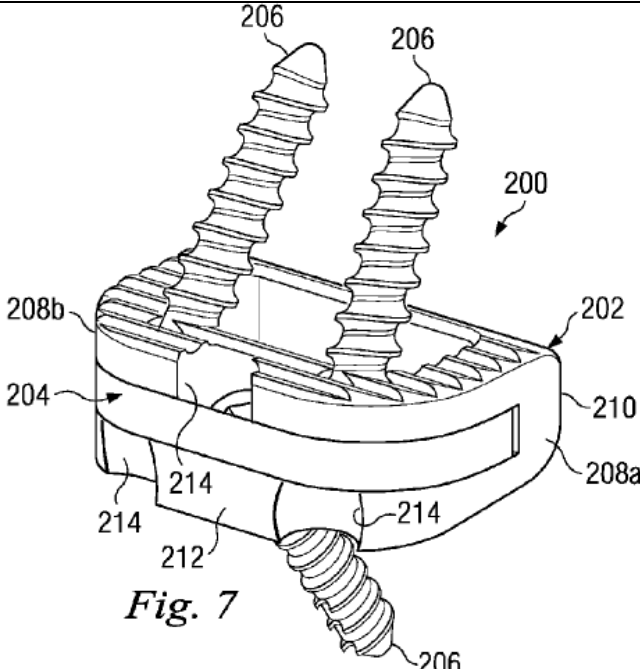
Asserted Claim	Prior Art
portion at least partially exposed.	 <i>Fig. 4</i> <i>Id.</i> at Fig. 4 annotated. This is also shown in Figs. 7 and 8:

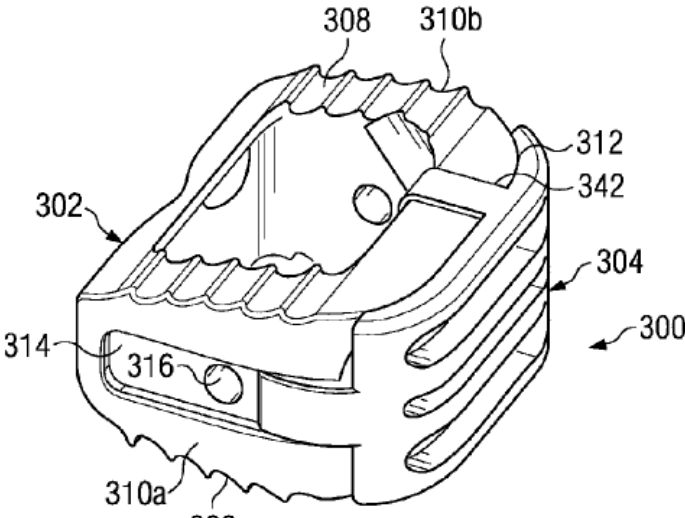
Asserted Claim	Prior Art
	 <i>Fig. 7</i>  <i>Fig. 8</i>

Asserted Claim	Prior Art
	<i>Id.</i> at Figs. 7, 8 (annotated); <i>see also id.</i> at Figs. 12-14. Waugh teaches that the purpose of faceplate is to extend across at least a portion of the screw entrance portions of the screws and to restrain the screws from backing out: To reduce the chance of the anchor members 106 backing out of the vertebral bodies over time and causing the implant member 102 to become loose, the face plate 104 is configured to extend across at least a portion of the anchor member apertures 126 and physically block anchor member back-out. <i>Id.</i> ¶ [0031]; <i>see also, e.g.:</i> The exemplary face plate 104 shown in these figures includes a main body 128 and locking features that cooperate with the implant member 102 to secure the main body 128 in place over the anchor member apertures 126. <i>Id.</i> ¶ [0031]; The faceplate may be oriented to at least partially overlap the anchor member apertures, and the faceplate may be advanced until it snaps onto the implant member to inhibit anchor member back-out. <i>Id.</i> ¶ [0008]; The faceplate 104 may be configured to snap onto the implant member 102, allowing simple installation once the anchor members 106 are placed during a surgical procedure. As used herein, the terms “snap onto,” and “snaps onto” are intended to mean attachment using features of the different components without the use of separate

Asserted Claim	Prior Art
	fasteners, such as screws or staples. To do this, in the embodiment shown, the locking tabs 130 may be configured to elastically deform when placing the faceplate 104 on the implant member 102, and then snap into place, thereby securing the faceplate 104 onto the implant member 102 and physically limiting back-out of the anchor members 106 from the implant member 102. <i>Id.</i> ¶ [0035]; One exemplary embodiment of the faceplate 204 is shown in FIG. 8. In this exemplary embodiment, the faceplate 204 includes a main body 216 and locking tabs 218 that extend from the main body 216. In this embodiment, the main body height is substantially the same as the locking tab height. Locking protrusions 220 (only one is shown) extend inwardly from the locking tabs 218, generally facing each other. In this exemplary embodiment, the locking protrusions 220 are cylindrical projections configured to fit into cylindrical connecting impressions on the implant member 202. Again, as described above, the faceplate 204 is configured to snap onto the implant member 202 and inhibit anchor member back-out. <i>Id.</i> ¶ [0043]. The locking tabs 424, like those described with respect to other embodiments herein, may be configured to elastically deform when placing the face plate 404 on the implant member 402, and then snap into place, thereby securing the face plate 404 onto the implant member 402 and physically limiting back-out of the anchor members from the implant member 402. <i>Id.</i> ¶ [0054].

Asserted Claim	Prior Art
	Waugh expressly describes locking the screws with the faceplate as part of the method of implantation. <i>See, e.g.:</i> The faceplate 104 may be introduced to the implant member 102 so that the locking tabs 130 align with the recessed slots 122. While advancing the faceplate 104, the tapered surfaces 148 of the locking protrusions 146 contact the implant member 102 and are elastically forced apart. Further advancement slides the locking protrusions 146 along the recessed slot 122 until the locking protrusions 146 reach the connecting impressions 124. Once there, the faceplate 104 snaps onto the implant member 102 because the locking tabs 130 deform toward their original positions as the locking protrusions 146 at least partially snap into the connecting impressions 124. The locking surface 150 on the locking protrusion 146 engages against the connecting impressions 124 and resists detaching the faceplate 104 from the implant member 102. The main body 128 of the faceplate 102 is now oriented to overlap at least a part of the anchor member apertures 126, and the surgical process may be completed in a manner known in the art. <i>Id.</i> ¶ [0058]. Waugh discloses embodiments in which the central portion partially blocks the screw entrance portion and the second screw entrance portion . . . while leaving at least a portion of the screw entrance portion and the second screw entrance portion at least partially exposed. For example, Waugh shows and teaches this with the embodiment of Figs. 3-4:

Asserted Claim	Prior Art
	 <i>Id.</i> at Figs. 7, 8. And with respect to the embodiment shown in Figs. 9-11, the specification expressly states that faceplate 304 physically blocks the screws from backing out (partially blocks the screw entrance portion and the second screw entrance portion), but makes clear that the faceplate has “viewing ports 334” that allow physicians to view the screws (while leaving at least a portion of the screw entrance portion and the second screw entrance portion at least partially exposed): In the exemplary embodiment shown, the main body 320 includes viewing ports 334 that here are formed of slots extending across the main body 320. These viewing ports 334 allow an operating physician to view the previously inserted anchor members through the faceplate 304.

Asserted Claim	Prior Art
	The interfacing surface 328 lies against the front surface 312 of the implant member 302 and deters the anchor members from backing out by physically blocking them. <i>Id.</i> ¶ [0046].  <i>Fig. 9</i> <i>Id.</i> at Figs. Figs. 9-11. Thus, Waugh teaches “locking the first screw and the second screw in the intervertebral cage using a screw locking bracket coupled to the intervertebral cage by positioning a first end portion of the screw locking bracket in the first slot, a second end portion of the screw locking bracket in the second slot and a central portion of the screw locking bracket extending between the first end portion and the second end portion across at least part of the top surface of the top wall such that the central portion partially blocks the screw entrance portion and the second

Asserted Claim	Prior Art
	screw entrance portion so as to retain the first and second screws in the internal screw guide and the second internal screw guide while leaving at least a portion of the screw entrance portion and the second screw entrance portion at least partially exposed.” To the extent Moskowitz argues this limitation is not disclosed or rendered obvious by Waugh, it would have been obvious to a person having ordinary skill in the art to modify Waugh or combine it with any of the other prior art references identified in Defendants’ Invalidity Contentions Cover Pleading that disclose this limitation.
Claim 25	
[25] The method of claim 24, and further comprising press fitting the screw locking bracket to the intervertebral cage.	Waugh discloses or renders obvious claim 24. <i>See</i> [24A]-[24K]. Waugh discloses or renders obvious this limitation. Waugh teaches that its faceplates are “snap-on” features that are therefore press fit to the intervertebral cage. For example, Waugh teaches: The faceplate 104 may be configured to snap onto the implant member 102, allowing simple installation once the anchor members 106 are placed during a surgical procedure. As used herein, the terms “snap onto,” and “snaps onto” are intended to mean attachment using features of the different components without the use of separate fasteners, such as screws or staples. To do this, in the embodiment shown, the locking tabs 130 may be configured to elastically deform when placing the faceplate 104 on the implant member 102, and then snap into place, thereby securing the faceplate 104 onto the implant member 102 and physically limiting back-out of the anchor members 106 from the implant member 102. Waugh ¶ [0035] (emphasis added).

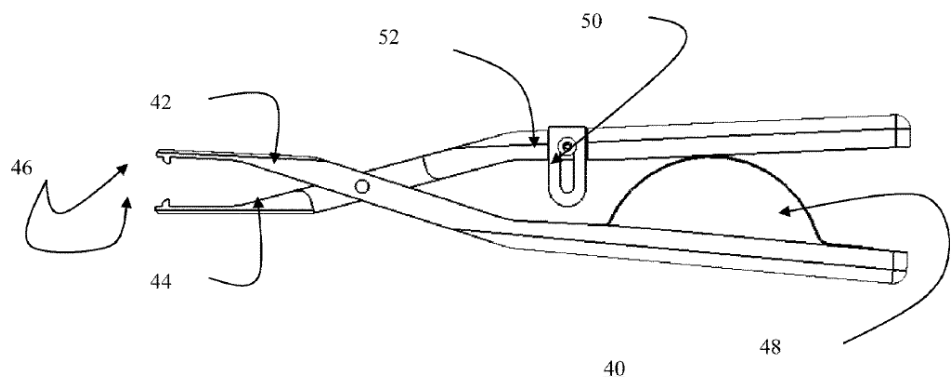
Asserted Claim	Prior Art
	Once there, the faceplate 104 snaps onto the implant member 102 because the locking tabs 130 deform toward their original positions as the locking protrusions 146 at least partially snap into the connecting impressions 124. The locking surface 150 on the locking protrusion 146 engages against the connecting impressions 124 and resists detaching the faceplate 104 from the implant member 102. Waugh ¶ [0058] (emphasis added). The locking tabs 424, like those described with respect to other embodiments herein, may be configured to elastically deform when placing the face plate 404 on the implant member 402, and then snap into place, thereby securing the face plate 404 onto the implant member 402 and physically limiting back-out of the anchor members from the implant member 402. <i>Id.</i> ¶ [0054]. The locking tabs 322, like those described with respect to other embodiments herein, may be configured to elastically deform when placing the face plate 304 on the implant member 302, and then snap into place, thereby securing the face plate 304 onto the implant member 302 and physically limiting back-out of the anchor members from the implant member 302. <i>Id.</i> ¶ [0048]; <i>see also id.</i> ¶¶ [0043], [0006], [0008]. As a result Waugh teaches or renders obvious the claimed method “further comprising press fitting the screw locking bracket to the intervertebral cage.”

Asserted Claim	Prior Art
	To the extent Moskowitz argues this limitation is not disclosed or rendered obvious by Waugh, it would have been obvious to a person having ordinary skill in the art to modify Waugh or combine it with any of the other prior art references identified in Defendants’ Invalidity Contentions Cover Pleading that disclose this limitation.
Claim 28	
[28] The method of claim 24, wherein the plurality of surface features on the side surface and the second side surface are patterned all the way next to the top surface of the top wall so as to be adjacent the top surface of the top wall.	Waugh discloses or renders obvious claim 24. <i>See</i> [24A]-[24K]. Waugh discloses or renders obvious this limitation. As discussed above with respect to [5], Waugh teaches using and implanting implants “wherein the plurality of surface features on the side surface and the second side surface are patterned all the way next to the top surface of the top wall so as to be adjacent the top surface of the top wall.” <i>See</i> [5]. To the extent Moskowitz argues this limitation is not disclosed or rendered obvious by Waugh, it would have been obvious to a person having ordinary skill in the art to modify Waugh or combine it with any of the other prior art references identified in Defendants’ Invalidity Contentions Cover Pleading that disclose this limitation.
Claim 30	
[30] The method of claim 24, wherein the screw locking bracket comprises means to slightly deform the screw locking bracket to remove the screw locking bracket from the intervertebral cage.	Waugh discloses or renders obvious claim 24. <i>See</i> [24A]-[24K]. Waugh discloses or renders obvious this limitation. As discussed above with respect to [10], it would have been obvious in view of Waugh’s disclosure to use and implant implants “wherein the screw locking bracket comprises means to slightly open the screw locking bracket.” <i>See</i> [10]. As discussed in [10], the “means to slightly open the screw locking bracket” identified in [10] would have been a means to slightly deform the screw locking bracket to remove the screw locking bracket from the intervertebral cage. In alleging infringement of this limitation, Moskowitz identifies holes in the accused Coverplate that can receive a Coverplate Remover tool.

Asserted Claim	Prior Art
	<i>See Moskowitz Infringement Contentions, Ex. D1 at [30].</i> It would have been obvious to a POSITA that Waugh's faceplates could be removed. For example, Waugh teaches that its faceplates are snap-on features with arms that elastically deform: The faceplate 104 may be configured to snap onto the implant member 102, allowing simple installation once the anchor members 106 are placed during a surgical procedure. As used herein, the terms "snap onto," and "snaps onto" are intended to mean attachment using features of the different components without the use of separate fasteners, such as screws or staples. To do this, in the embodiment shown, the locking tabs 130 may be configured to elastically deform when placing the faceplate 104 on the implant member 102, and then snap into place, thereby securing the faceplate 104 onto the implant member 102 and physically limiting back-out of the anchor members 106 from the implant member 102. Waugh ¶ [0035].

Asserted Claim	Prior Art
	Once there, the faceplate 104 snaps onto the implant member 102 because the locking tabs 130 deform toward their original positions as the locking protrusions 146 at least partially snap into the connecting impressions 124. The locking surface 150 on the locking protrusion 146 engages against the connecting impressions 124 and resists detaching the faceplate 104 from the implant member 102. Waugh ¶ [0058]. The locking tabs 424, like those described with respect to other embodiments herein, may be configured to elastically deform when placing the face plate 404 on the implant member 402, and then snap into place, thereby securing the face plate 404 onto the implant member 402 and physically limiting back-out of the anchor members from the implant member 402. <i>Id.</i> ¶ [0054]. The locking tabs 322, like those described with respect to other embodiments herein, may be configured to elastically deform when placing the face plate 304 on the implant member 302, and then snap into place, thereby securing the face plate 304 onto the implant member 302 and physically limiting back-out of the anchor members from the implant member 302. <i>Id.</i> ¶ [0048]; <i>see also id.</i> ¶¶ [0043], [0006], [0008]. To the extent “means to slightly deform the screw locking bracket to remove the screw locking bracket from the intervertebral cage” invokes 112(6), the ’738 Patent specification states:

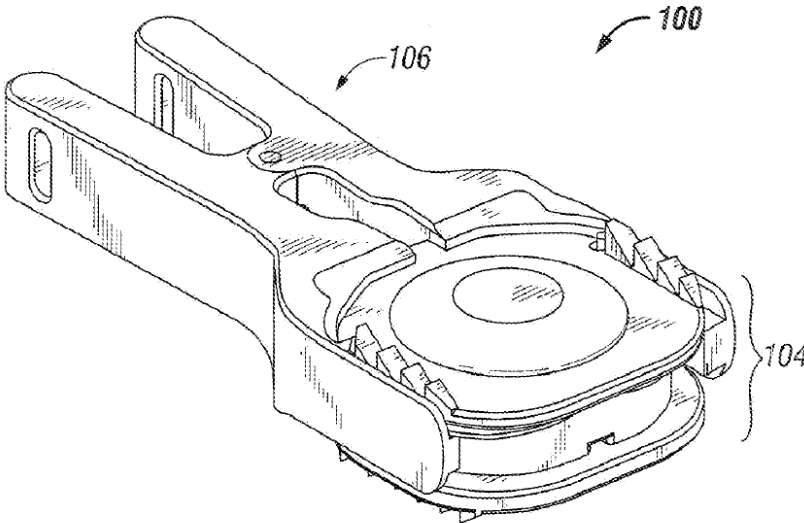
Asserted Claim	Prior Art
	• “In order to remove the bracket 30; if it becomes necessary to remove the cage 10 at some future time, flexion grips (side tabs) 32 have been designed on the bracket 30. The locking bracket 30 can be applied to the construct 10 with the specially designed pliers (exemplarily described with reference to FIG. 5) which press fit the bracket 30 onto the cage 10 thereby locking the screws 12, 14. In order to remove the bracket 30, the user needs only to press on the side tabs 32 with the pliers (FIG. 5) to slightly deform (open) the bracket hooks 34, and thereby easily remove the bracket.” ’738 Patent at 8:49-59 (emphasis added); • “The side tabs 32 of the screw locking horizontal bracket 30 include bracket flexion grips. The screw locking horizontal bracket 30 can be deformable. The screw locking horizontal bracket 30 can be deformable under pressure applied to the bracket flexion grips.” <i>Id.</i> at 9:22-26. • “In order to remove the bracket 30, the user needs only to press on the side tabs 32 with the pliers (FIG. 5) to slightly deform (open) the bracket hooks 34, and thereby easily remove the bracket 30.” ’738 Patent at 10:4-12 (emphasis added); <i>see also id.</i> at 11:51-54; • “The method can further include unlocking the first screw member and the second screw member, wherein the intervertebral cage includes hook insertion slots, wherein the screw locking horizontal bracket includes a cover portion extending in a direction of a longitudinal axis of the intervertebral cage and substantially parallel to a top face of the intervertebral cage, the cover portion covering and locking the first screw member and the second screw member in the intervertebral cage, side tabs on each end of the cover portion, wherein the side tabs extend in a direction perpendicular to the cover portion along the sides of the intervertebral cage, and wherein the side tabs include bracket hooks extending from the side tabs and lockingly engaging the hook insertion slots of the intervertebral cage, and bracket flexion grips for deforming the screw locking horizontal bracket, wherein the unlocking includes applying pressure to the bracket flexion grips to deform the screw locking horizontal bracket such that the side tabs of the screw locking

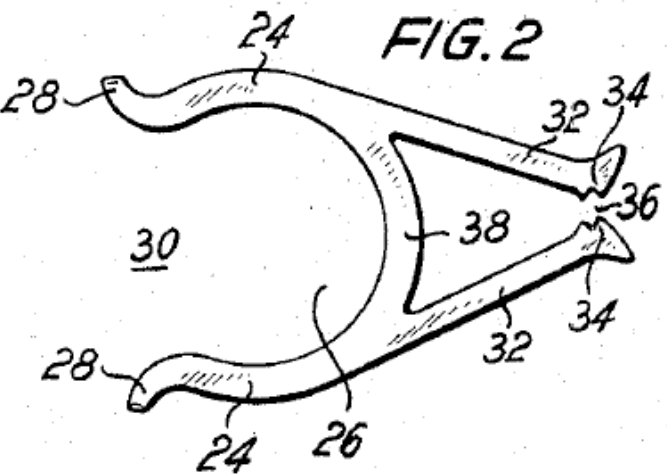
Asserted Claim	Prior Art
	bracket move away from the intervertebral cage and release the bracket hooks of the screw locking horizontal bracket from the hook insertion slots of the intervertebral cage.” <i>Id.</i> at 19:44-65. The side tabs 32 that are pressed with the pliers (Fig. 5) are shown in the relevant figures of the ’738 Patent. <i>See, e.g., id.</i> at Fig. 2B; <i>see also</i> Figs. 2A, 2C-2E; <i>id.</i> at Fig. 3C; <i>see also</i> Figs. 3A-3B, 3D-3F; <i>id.</i> at Fig. 4C, 4D, 4E; <i>see also</i> Fig. 4A-4B, 4F. The fact that the “means to slightly deform the screw locking bracket” described by the ’738 Patent require side tabs (or “flexion grips”) 32 that must be depressed is also made clear by the tool shown in Figure 5, which is designed to engage ridges on these side tabs and press inward to deform the bracket hooks of the bracket. <i>See, e.g.:</i>  FIGURE 5 <i>Id.</i> at Fig. 5. The specification’s description with respect to this tool and its operation further confirms this specific design. <i>See, e.g., id.</i> at 12:10-17 (“the first arm includes an upper plier tip 42 and the second arm includes a lower plier tip 44, wherein the first arm and the second arm engage the bracket flexion grips 32, wherein the upper plier tip 42 and the lower plier tip 44 each include a stop 46 configured to engage the bracket flexion grips 32, and a leaf spring 48 between the first arm and

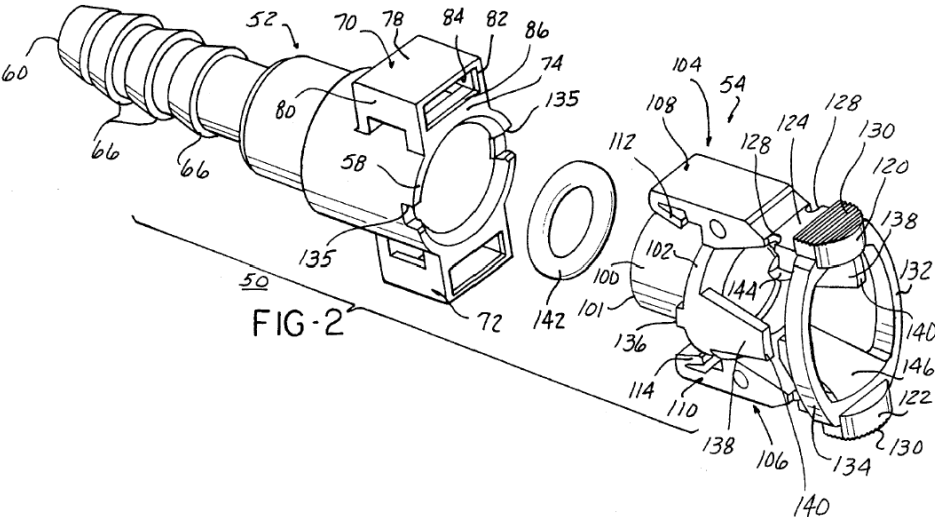
Asserted Claim	Prior Art
	the second arm, wherein the leaf spring biases the first hand portion away from the second handle portion.”) In the event “means to slightly deform the screw locking bracket” invokes 112(6), it would have been obvious to a POSITA to include deformable side tabs, as disclosed in the ’738 Patent, that could be pressed together in order to deform and release the faceplate embodiments taught by Waugh. Further, detachable structures with deformable tabs that are pressed or squeezed together in order to slightly open the structure for release were well-known in the art. For example, US Patent No. 8,579,911 (“Dudasik”) discloses surgical implant insertion and removal tools having squeezing handles or tabs that, when pressed together, pivot and cause jaws to articulate and release from the implant. Dudasik discloses:

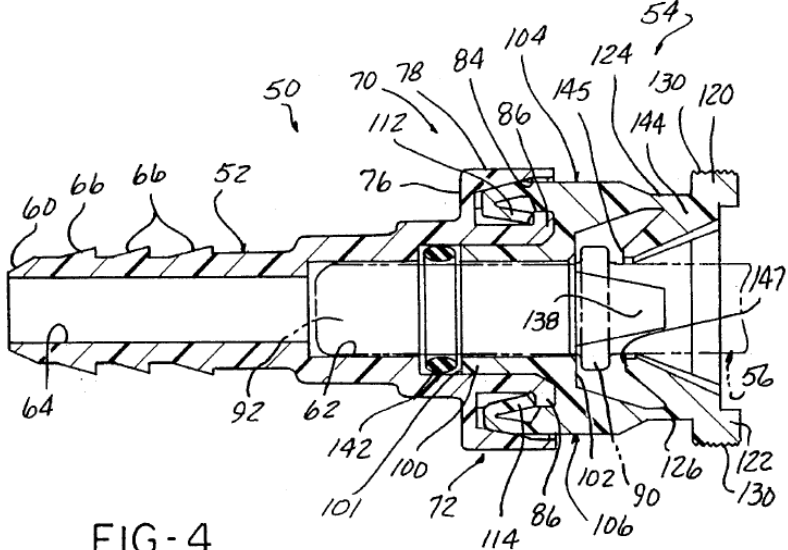
Asserted Claim	Prior Art
	The implant dispensers may be flexible. In preferred embodiments, an implant dispenser includes a first arm engaging a top element of the intervertebral disc implant, a second arm engaging a bottom element of the intervertebral disc implant, and a connecting element for interconnecting the first and second arms. The connecting element is preferably flexible for enabling the first and second arms to move away from one another for releasing the intervertebral disc. Dudasik at 6:42-49.

Asserted Claim	Prior Art
	Referring to FIGS. 28A-28C, the implant dispenser 456 is preferably flexible and includes a superior arm 458 for engaging a top element of an intervertebral disc implant and an inferior arm 460 for engaging a bottom element of an intervertebral disc implant. The superior and inferior arms preferably have lateral notches 462 formed therein for receiving the teeth of the top and bottom elements, as will be described in more detail herein. The implant dispenser also preferably includes a central support 464 that enables the superior and inferior arms 458, 460 to move away from one another for releasing an intervertebral disc implant. <i>Id.</i> at 24:34-49. Similarly, U.S. Patent Publication No. US 2008/0200984 (“Jodaitis”) describes detachable insertion assemblies for intervertebral disc prosthesis insertion where an insertion adapter (106) retains a prosthesis (104) but has tabs that can be squeezed to slightly open the adapter in order to release it from the prosthesis.

Asserted Claim	Prior Art
	 FIG. 2 Jodaitis explains that “[a]ctuating a removal tool (160) by squeezing handles (170) of the removal tool (160) may pivot the tangs (164) of the insertion adapter (106) around the hinge pin (172), causing the jaws (121) to release the plates and the mounting dogs (120) to release their grip on the posts (124) and disengage from the recesses (122).” <i>Id.</i> Jodaitis further teaches an alternative embodiment “comprising a flexible portion at which the tangs (164) articulate,” where “squeezing the tangs (164) will cause the flexible body to flex, the tangs (164) to articulate, the jaws (121) to release the plates, and the mounting dogs (120) to release their grip on the posts (124) and disengage from the recesses (122).” <i>Id.</i> Furthermore, detachable structures with deformable tabs that are pressed or squeezed together in order to slightly open the structure for release were generally ubiquitous and well-known. As one example, as early as 1967, Bubb (US 3,322,381) disclosed a display device incorporating a clamping

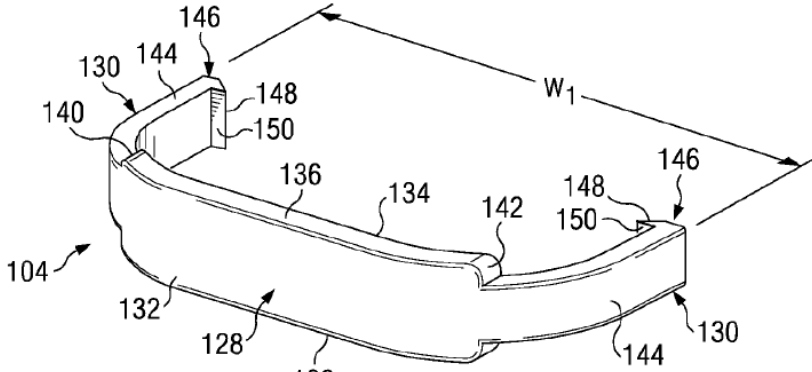
Asserted Claim	Prior Art
	member with two resilient leg portions defining a channel. Squeezing the prongs of the clamping member moves the leg portions relative to each other, narrowing or widening a slot to engage or release a supported element. <i>See, e.g.:</i>  Similarly, Jackowski (US 5,568,946) titled "Squeeze-to-Release Quick Connector with Snap-In Retainer," discloses a quick connector (50) having pads (120, 122) which could be squeezed together in order to slightly deform and open latch arms (108, 110), allowing retainer (54) to be removed from receiver (70). <i>See, e.g.</i> Jackowski at 3:13-56; 5:53-6:32; <i>see also id.</i> at Claim 1.

Asserted Claim	Prior Art
	 FIG-2

Asserted Claim	Prior Art
	 FIG-4 It would have been obvious to include a deformable tab structure for slightly opening, such as those disclosed by Dudasik, Jodaitis, Bubbs, and/or Jackowski, with a screw locking bracket as taught by Waugh. Doing so would have facilitated removal of the screw locking bracket in situations where the bracket ought to be removed, improving safety and patient outcomes, while keeping the form factor of the implant and screw locking bracket small. To the extent Moskowitz argues this limitation is not disclosed or rendered obvious by Waugh, it would have been obvious to a person having ordinary skill in the art to modify Waugh or combine it with any of the other prior art references identified in Defendants' Invalidity Contentions Cover Pleading that disclose this limitation.
Claim 31	
[31] The method of claim 30, wherein the means comprises a flexion portion	Waugh discloses or renders obvious claim 30. See [30]. Waugh discloses or renders obvious this limitation.

Asserted Claim	Prior Art
of the screw locking bracket.	As discussed in [10] and [30] above, it would have been obvious to a POSITA that Waugh's faceplates could be removed given that faceplates are snap-on features with arms that elastically deform. <i>See</i> [10], [30]. Further, as discussed in [10] and [30] above, in the event “means to slightly deform the screw locking bracket” and/or “means to slightly open the screw locking bracket” invokes 112(6), it would have been obvious to a POSITA to include deformable side tabs, as disclosed in the '738 Patent, that could be pressed together in order to deform and release the faceplate embodiments taught by Waugh. <i>See</i> [10], [30]. To the extent Moskowitz argues this limitation is not disclosed or rendered obvious by Waugh, it would have been obvious to a person having ordinary skill in the art to modify Waugh or combine it with any of the other prior art references identified in Defendants' Invalidity Contentions Cover Pleading that disclose this limitation.
Claim 32	
[32] The method of claim 24, and further comprising contacting both the first and second screw heads with the screw locking bracket when the screw locking bracket is connected to the intervertebral cage.	Waugh discloses or renders obvious claim 24. <i>See</i> [24A]-[24K]. Waugh discloses or renders obvious this limitation. As discussed in [1J] and [2] above, As discussed above, Waugh teaches a faceplate (screw locking bracket) according to the claims. Further, Waugh teaches that, when the screw locking bracket is connected to the intervertebral cage, the screw locking bracket contacts the screw heads (first and second screw heads) to physically block them from backing up. <i>See</i> [1J], [2]. In particular, in describing the method of implantation, <i>see</i> Waugh ¶¶ [0055]-[0062], Waugh teaches: Over time, due to micromotion of the vertebrae and the implant member 102, the anchor members 106 may loosen slightly. However, the anchor members 106 may be unable to back-out because they come into contact with the main body 128 of the faceplate 104. Thus, anchor member back-out is inhibited by the faceplate 104.

Asserted Claim	Prior Art
	<i>Id.</i> ¶ [0059] (emphasis added). To the extent Moskowitz argues this limitation is not disclosed or rendered obvious by Waugh, it would have been obvious to a person having ordinary skill in the art to modify Waugh or combine it with any of the other prior art references identified in Defendants’ Invalidity Contentions Cover Pleading that disclose this limitation.
Claim 33	
[33] The method of claim 24, wherein the screw locking bracket comprises a first hook at the first end portion that is sized to fit in the first slot and a second hook at the second end portion that is sized to fit in the second slot.	Waugh discloses or renders obvious claim 24. <i>See</i> [24A]-[24K]. Waugh discloses or renders obvious this limitation. As discussed in [3] above, Waugh teaches the use of a faceplate (screw locking bracket) according to the claims. <i>See</i> [3]. Faceplates shown and described by Waugh comprise a first hook at the first end portion that is sized to fit in the first slot and further comprise a second hook at the second end portion that is sized to fit in the second slot. In describing the method of implantation, <i>see</i> Waugh ¶¶ [0055]-[0062], Waugh teaches: The faceplate 104 may be introduced to the implant member 102 so that the locking tabs 130 align with the recessed slots 122. While advancing the faceplate 104, the tapered surfaces 148 of the locking protrusions 146 contact the implant member 102 and are elastically forced apart. Further advancement slides the locking protrusions 146 along the recessed slot 122 until the locking protrusions 146 reach the connecting impressions 124. Once there, the faceplate 104 snaps onto the implant member 102 because the locking tabs 130 deform toward their original positions as the locking protrusions 146 at least partially snap into the connecting impressions 124. The locking surface 150 on the locking protrusion 146 engages against the connecting impressions 124 and resists detaching the faceplate 104 from the implant member 102.

Asserted Claim	Prior Art
	 Fig. 5 <i>Id.</i> at Figs. 4 (annotated), 5; <i>see also id.</i> at Figs. 3, 7, 8-14. To the extent Moskowitz argues this limitation is not disclosed or rendered obvious by Waugh, it would have been obvious to a person having ordinary skill in the art to modify Waugh or combine it with any of the other prior art references identified in Defendants' Invalidity Contentions Cover Pleading that disclose this limitation.