

**IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF PENNSYLVANIA**

Dr. Mark A. BARRY,)	
)	CASE No. _____
Plaintiff)	
)	COMPLAINT
v.)	
)	JURY TRIAL REQUESTED
DEPUY SYNTHES COMPANIES,)	
DEPUY SYNTHES PRODUCTS LLC, and)	
DEPUY SYNTHES SALES, INC)	
(d/b/a DEPUY SYNTHES SPINE))	
)	
Defendants.)	

COMPLAINT FOR PATENT INFRINGEMENT

Plaintiff Dr. Mark A. Barry (“Dr. Barry”), through his undersigned counsel, hereby alleges as follows:

THE PARTIES

1. Dr. Barry is an orthopaedic surgeon who resides in Las Vegas, Nevada. Dr. Barry is sole owner of United States Patent Nos. 7,670,358 (“the ‘358 patent”); 8,361,121 (“the ‘121 patent”); 9,339,301 (“the ‘301 patent”); 9,668,787 (“the ‘787 patent”); and 9,668,788B2 (“the ‘788 patent”).

2. On information and belief, Defendant DePuy Synthes Companies, DePuy Synthes Products LLC, DePuy Synthes Sales, Inc., and the fictitious business entity DePuy Synthes Spine, which is operated under DePuy Synthes Sales, Inc. (together “DePuy Synthes”), in conjunction with one another, set about to commit the acts of infringement detailed herein.

3. Specifically, on information and belief, DePuy Synthes Companies refers to a collection of companies that includes DePuy Synthes Products LLC and DePuy Synthes Sales, Inc. DePuy Synthes companies are part of the Johnson & Johnson Family of Companies

incorporated under the laws of New Jersey but existing with established businesses in this judicial district.

4. On information and belief, DePuy Synthes Products LLC has a regular and established place of business at its headquarters at 1302 Wrights Lane East, Suite 220, West Chester, Pennsylvania, and is incorporated under the laws of Delaware.

5. On information and belief, DePuy Synthes Sales is incorporated under the laws of Massachusetts but is doing business in Pennsylvania under the name DePuy Synthes Spine according to the Pennsylvania Secretary of State. DePuy Synthes Sales has a regular and established place of business at 1301 Goshen Parkway, West Chester, PA 19380, through its fictitious business name DePuy Synthes Trauma, according to the DePuy Synthes' webpage and the Pennsylvania Secretary of State. DePuy Synthes Spine maintains sales representatives in this judicial district who promote, sell, and distribute the systems and methods described in this complaint and educate, instruct, and train physicians in the use of those systems and methods.

JURISDICTION AND VENUE

6. This is an action for patent infringement arising under the patent laws of the United States, 35 U.S.C. § 1, *et seq.* The Court has subject matter jurisdiction pursuant to 35 U.S.C. §§ 1331 and 1338(a).

7. The Court has personal jurisdiction over DePuy Synthes because it has sufficient minimum contacts stemming from its regular and established place of business within this judicial district in West Chester, Pennsylvania and because DePuy Synthes has committed acts of infringement in this district through the sale, distribution, promotion, and education of the products discussed herein and their subsequent use in an infringing manner.

8. Venue is proper pursuant to 28 U.S.C. § 1400(b). DePuy Synthes has committed, induced, and/or contributed to the acts of infringement alleged herein in this district and these claims arise from those acts. DePuy Synthes has regularly engaged in business in Pennsylvania and in this district, through at least the presence of its regular and established place of business in West Chester Pennsylvania. Additionally, DePuy Synthes has purposely availed itself of the privileged of conducting business in this district, for example, by at least its offering, promoting, education, and either loaning or selling products in this district that are used to infringe the patent described herein.

THE '358 PATENT

9. On March 2, 2010, the United States Patent Office issued the '358 patent, entitled **SYSTEM AND METHOD FOR ALIGNING VERTEBRAE IN THE AMELIORATION OF ABERRANT SPINAL COLUMN DEVIATION CONDITIONS**. (Copy Attached as Exhibit A).

10. Dr. Barry is the owner of all right, title, and interest in the '358 patent, including the right to sue, enforce, and recover damages for all infringements.

11. The '358 patent has not expired and is in full force and effect.

12. Pursuant to 35 U.S.C. § 282, the '358 patent and each of its claims are valid and enforceable.

13. The '358 patent contains claims, for example claims 4 and 5, directed to a method of derotating vertebrae via the simultaneous application of force to linked engagement members attached to implanted pedicle screws.

THE '121 PATENT

14. On January 29, 2013, the United States Patent Office issued the '121 patent, entitled **SYSTEM AND METHOD FOR ALIGNING VERTEBRAE IN THE**

AMELIORATION OF ABERRANT SPINAL COLUMN DEVIATION CONDITIONS. (Copy Attached as Exhibit B).

15. Dr. Barry is the owner of all right, title, and interest in the '121 patent, including the right to sue, enforce, and recover damages for all infringements.

16. The '121 patent has not expired and is in full force and effect.

17. Pursuant to 35 U.S.C. § 282, the '121 patent and each of its claims are valid and enforceable.

18. The '121 patent contains claims, for example claims 2, 3, and 4, directed to a system used in derotating vertebrae via the simultaneous application of force to linked engagement members attached to implanted pedicle screws.

THE '301 PATENT

19. On May 17, 2016, the United States Patent Office issued the '301 patent, entitled SYSTEM AND METHOD FOR ALIGNING VERTEBRAE IN THE AMELIORATION OF ABERRANT SPINAL COLUMN DEVIATION CONDITIONS. (Copy Attached as Exhibit C).

20. Dr. Barry is the owner of all right, title, and interest in the '301 patent, including the right to sue, enforce, and recover damages for all infringements.

21. The '301 patent has not expired and is in full force and effect.

22. Pursuant to 35 U.S.C. § 282, the '301 patent and each of its claims are valid and enforceable.

23. The '301 patent contains claims, for example claims 1-10, directed to both a system for use in, as well as the method for, derotating vertebrae via the simultaneous application of force to linked engagement members attached to implanted pedicle screws.

THE '787 PATENT

24. On June 6, 2017, the United States Patent Office issued the '787 patent, entitled SYSTEM AND METHOD FOR ALIGNING VERTEBRAE IN THE AMELIORATION OF ABERRANT SPINAL COLUMN DEVIATION CONDITIONS. (Copy Attached as Exhibit D).

25. Dr. Barry is the owner of all right, title, and interest in the '787 patent, including the right to sue, enforce, and recover damages for all infringements.

26. The '787 patent has not expired and is in full force and effect.

27. Pursuant to 35 U.S.C. § 282, the '787 patent and each of its claims are valid and enforceable.

28. The '787 patent contains claims, for example claims 1-9, directed to a method for derotating vertebrae via the simultaneous application of force to linked elongated levers attached to implanted pedicle screws.

THE '788 PATENT

29. On June 6, 2017, the United States Patent Office issued the '788 patent, entitled SYSTEM AND METHOD FOR ALIGNING VERTEBRAE IN THE AMELIORATION OF ABERRANT SPINAL COLUMN DEVIATION CONDITIONS. (Copy Attached as Exhibit E).

30. Dr. Barry is the owner of all right, title, and interest in the '788 patent, including the right to sue, enforce, and recover damages for all infringements.

31. The '788 patent has not expired and is in full force and effect.

32. Pursuant to 35 U.S.C. § 282, the '788 patent and each of its claims are valid and enforceable.

33. The '788 patent contains claims, for example claims 1-6, directed to a system for use in derotating vertebrae via the simultaneous application of force to linked elongated levers attached to implanted pedicle screws.

KNOWLEDGE OF DR. BARRY'S PATENTS AND PATENT RIGHTS

34. DePuy Synthes is a competitive manufacturer of medical devices and competes in the relevant area of spinal correction with various companies. For example, according to DePuy Synthes's website "[t]he DePuy Synthes Companies are part of the Johnson & Johnson Family of Companies. We offer the world's most comprehensive portfolio of orthopaedic and neuro products and services for joint reconstruction, trauma, spine, sports medicine , neuro, cranio-maxillofacial, power tools and biomaterials." www.depuysynthes.com/about (last accessed on June 28, 2017). DePuy Synthes came to be in present form through Johnson & Johnson's acquisition first of DePuy in 1998 and then Synthes in 2012 "and combined that company with the DePuy franchise to create the world's largest orthopaedic and neurological business." www.depuysynthes.com/about/corporate-information/our-history (last accessed on June 28, 2017).

35. Given the competitive landscape in which DePuy Synthes operates, on information and believe, DePuy Synthes has monitored not only the products and techniques offered by their competitors, but also their intellectual property and licenses competitors have reached regarding third party intellectual property rights.

36. As stated on the face of Dr. Barry's earliest patent at issue in this complaint, Dr. Barry's parent '358 patent published in 2006. Dr. Barry's patent rights were licensed by Biomet, which initially commercialized Dr. Barry's invention and sells a product thereunder known as Trivium Derotation System. Upon information and belief, DePuy Synthes has known of Dr.

Barry and his inventions, including issued United States Patents since March 2010 through its efforts to keep apprised of its industry and/or the intellectual property associated with its industry.

37. By way of example, DePuy Synthes disclosed to the U.S. Patent Office the published version of the application leading to the '358 patent and that application's continuation-in-part which is a parent application to the remaining patents in this complaint, during prosecution of one of DePuy Synthes's own patent application, which application ultimately issued as United States Patent No. 8,709,015.

38. By virtue of knowledge of this patent, DePuy Synthes was aware of the publicly available related applications, published applications, and issued patents.

39. Dr. Barry recently sued Medtronic on the same technology at issue in this complaint, including two of the asserted patents (the '358 and '121 patents), in the Eastern District of Texas. Civil Action No. 1:14-cv-104 ("Medtronic Case"). These patents are the parent patents to the remaining patents in this complaint. Dr. Barry asserted that Medtronic's VCM system infringed upon his patent rights and ultimately prevailed at trial with a finding of willful infringement, no invalidity, and no inequitable conduct. DePuy Synthes sells products that compete with Medtronic's VCM system as well as Biomet's Trivium Derotation System.

40. Upon information and belief, DePuy Synthes was aware of the Medtronic Case since the inception of that suit. At the very least, DePuy Synthes would have learned of Dr. Barry and his patents no later than January 27, 2016, when it was served with a subpoena in relation to the Medtronic Case regarding products it manufactures, sells, loans, advertises, distributes, or otherwise commercializes capable of rotating vertebrae using two or more linked rods, tubes, or levers. Specifically, the subpoena sought information regarding the number of

times such a system has been used, revenue received in association with such use, and when DePuy Synthes first became aware of Dr. Barry's patents or the system marketed by Biomet known as Trivium Derotation System.

41. That subpoena specifically identified the '358 patent and the '121 patent, both of which are parent applications to the remaining patents in this complaint. DePuy Synthes accordingly had access to the details of Dr. Barry's published applications for the patents in this complaint even before their issuance.

42. Upon information and belief, DePuy Synthes has been aware of Medtronic's VCM system since that product was released on the market and further aware that system was found to willfully infringe Dr. Barry's patents.

43. Likewise, upon information and belief, DePuy Synthes has been aware of Biomet's Trivium Derotation System since that product was released on the market.

44. In light of all of the indications of the patented methods and systems that DePuy Synthes's product implemented, DePuy Synthes should have been compelled to conduct a patent search that would identify Dr. Barry's patent rights. To the extent DePuy Synthes did not do so, such conduct was intentional, or at the very least, willfully blind to Dr. Barry's patent rights.

45. Based on these facts, DePuy Synthes has either affirmatively known of Dr. Barry's intellectual property covering the equipment and techniques associated with the DePuy Synthes Products as described herein, or at the very least, been willfully blind to the existence of that intellectual property and its relation to the DePuy Synthes Products as described herein.

DEPUY SYNTHES'S PRODUCTS

46. The term "DePuy Synthes Products" as used herein refers to the EXPEDIUM® Vertebral Derotation System, the VIPER® 3D MIS Correction Set, and any other instruments

manufactured, sold, distributed, loaned, or otherwise used to derotate *en bloc* multiple levels of vertebrae.

47. Upon information and belief, the DePuy Synthes Products were designed to compete in the market with products such as Medtronic's VCM product and Biomet's Trivium Derotation System.

48. DePuy Synthes has manufactured, sold, distributed, loaned, or otherwise made available vertebral derotation instruments under the name EXPEDIUM® Vertebral Derotation System.

49. The following image of the EXPEDIUM® Vertebral Derotation System shows six levers or rods attached to six pedicle screws and connected via rods both along the length of the spine as well as conversely across the spine:



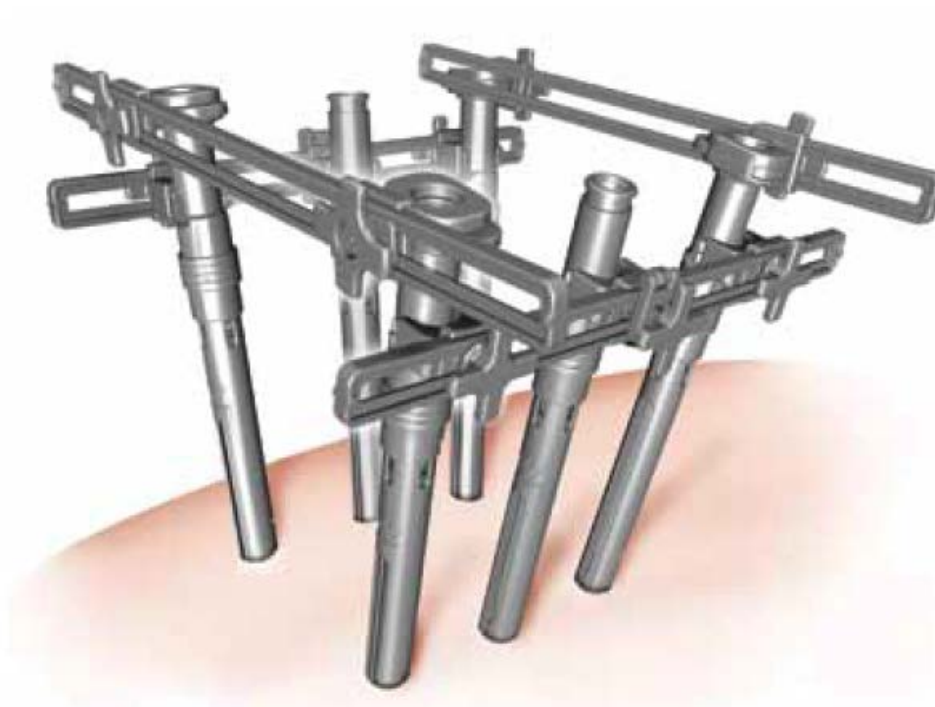
50. The image from Paragraph 49 was taken from DePuy Synthes website and is attached hereto as Exhibit F.

51. As is clear from the EXPEDIUM® Vertebral Derotation System technique guide, “The EXPEDIUM VBD Set has been developed to address some of the challenges of the derotation manoeuvres. It provides intuitive tools that give the surgeon 360° control over anchor points and reduce the number of hands required for a multiple level derotation.” *See Exhibit G.*

52. According to the EXPEDIUM® Vertebral Derotation System description, “The EXPEDIUM family of products includes a wide selection of deformity specific implants and instruments to support the DePuy Spine philosophy of patient driven, pathology specific solutions.” *See Exhibit G.*

53. DePuy Synthes has manufactured, sold, distributed, loaned, or otherwise made available vertebral derotation instruments under the name VIPER® 3D MIS Correction Set.

54. The following image of the VIPER® 3D MIS Correction Set shows six levers or rods attached to four pedicle screws and connected via rods both along the length of the spine as well as conversely across the spine:



55. The image from Paragraph 54 was taken from DePuy Synthes Medical's VIPER 3D MIS Correction Set Surgical Technique and is attached hereto as Exhibit H.

56. As is clear from the VIPER® 3D MIS Correction Set description, "In trying to achieve three dimensional correction, the role of vertebral body derotation is to address the torsional asymmetry created by scoliosis." *See* Exhibit H. The Surgical Technique further states "Link up the spine for *en bloc* derotation." *Id.*

57. According to the VIPER® 3D MIS Correction Set description, the VIPER® 3D MIS Correction Set can be used with VIPER Implantables and EXPEDIUM rods or levers. *See* Exhibit H.

58. DePuy Synthes specifically and intentionally has designed the DePuy Synthes Products to be competitive in the market, making use of industry norms in the standard of care such an *en bloc* derotation, and upon information and belief has and will continue to educate, encourage, direct, train, or otherwise induce the performance of methods and construction of instruments that make use of those norms.

COUNT I: WILLFUL INFRINGEMENT OF THE '358 PATENT

59. Dr. Barry incorporates by reference the averments of paragraphs 1-58 of this Complaint as though fully set forth here.

60. DePuy Synthes, without license or authorization to do so, contributes to or induces the infringement of the '381 patent by manufacturing, selling, distributing, loaning, or otherwise making available the EXPEDIUM® Vertebral Derotation System to surgeons performing spinal derotation procedures resulting in the performance of the methods claimed in the '358 patent, for example in claims 4 and 5.

61. As seen in Exhibits F and G, DePuy Synthes provides either along with or in conjunction with the EXPEDIUM® Vertebral Derotation System instruction, education, or encouragement to surgeons performing spinal derotation procedures to infringe at least the identified claims of the '358 patent.

62. For example, as shown above in paragraph 49, when assembled the EXPEDIUM® Vertebral Derotation System has at least two sets of pedicles screws implanted in multiple levels of vertebrae, engagement members which act as levers attached to the pedicle screws, said engagement members designed to be grasped by one's hand, linking the engagement members one to another on both sides of the spine as well as across the spine, such that when force is applied to the entire construct the force is received simultaneously across the engagement members resulting in the derotation of the vertebrae.

63. When the EXPEDIUM® Vertebral Derotation System is constructed as depicted in paragraph 49 the construct necessarily infringes at least claims 4 and 5 of the '358 patent and has no substantial non-infringing use and is not a stable article of commerce.

64. DePuy Synthes, without license or authorization to do so, contributes to or induces the infringement of the '381 patent by manufacturing, selling, distributing, loaning, or otherwise making available the VIPER® 3D MIS Correction Set to surgeons performing spinal derotation procedures resulting in the performance of the methods claimed in the '358 patent, for example in claims 4 and 5.

65. As shown in Exhibit H, DePuy Synthes provides either along with or in conjunction with the VIPER® 3D MIS Correction Set instruction, education, or encouragement to surgeons performing spinal derotation procedures to infringe at least the identified claims of the '358 patent.

66. For example, as shown above in paragraph 54, when assembled the VIPER® 3D MIS Correction Set has at least two sets of pedicles screws implanted in multiple levels of vertebrae, engagement members which act as levers attached to the pedicle screws, said engagement members designed to be grasped by one's hand, linking the engagement members one to another on both sides of the spine as well as across the spine, such that when force is applied to the entire construct the force is received simultaneously across the engagement members resulting in the derotation of the vertebrae.

67. When the VIPER® 3D MIS Correction Set is constructed as depicted in paragraph 54 the construct necessarily infringes at least claims 4 and 5 of the '358 patent and has no substantial non-infringing use and is not a stable article of commerce.

68. At all times relevant to this cause of action, DePuy Synthes provided the instruction, education, encouragement, or direction described above to surgeons with the intent of having those surgeons perform the methods of the '358 patent and infringe the claims therein.

69. DePuy Synthes knows and at all relevant times has known of its infringement of the '358 patent or at the very least has been willfully blind to its infringement of the '358 patent.

70. Because DePuy Synthes knows and at all relevant times has known of its infringement of the '358 patent or at the very least has been willfully blind to its infringement of the '358 patent its infringement is deliberate and willful.

71. Dr. Barry has been and continues to be damaged and irreparably harmed by DePuy Synthes's infringement of the '358 patent.

72. Upon information and belief, such infringement has been, and will continue to be, willful and upon further belief DePuy Synthes lacks any reasonable invalidity or non-

infringement defense making this case exceptional and entitling Dr. Barry to increased damages and reasonably attorney's fees pursuant to 35 U.S.C. §§ 284 and 285.

COUNT II: WILLFUL INFRINGEMENT OF THE '121 PATENT

73. Dr. Barry incorporates by reference the averments of paragraphs 1-72 of this Complaint as though fully set forth here.

74. DePuy Synthes, without license or authorization to do so, infringes the '121 patent by manufacturing, selling, distributing, loaning, or otherwise making available the EXPEDIUM® Vertebral Derotation System to surgeons performing spinal derotation procedures and thus infringing the systems of the '121 patent, for example in claims 2, 3, and 4.

75. DePuy Synthes, without license or authorization to do so, contributes to or induces the infringement of the '121 patent by manufacturing, selling, distributing, loaning, or otherwise making available the EXPEDIUM® Vertebral Derotation System to surgeons for assembly into the systems of the '121 patent, for example in claims 2, 3, and 4.

76. As shown in Exhibits F and G, DePuy Synthes provides either along with or in conjunction with the EXPEDIUM® Vertebral Derotation System instruction, education, or encouragement to surgeons performing spinal derotation procedures to infringe at least the identified claims of the '121 patent.

77. For example, as shown above in paragraph 49, when assembled the EXPEDIUM® Vertebral Derotation System Instruments has at least two sets of pedicles screws implanted in multiple levels of vertebrae totaling six pedicle screws, engagement members which act as levers attached to the pedicle screws, said engagement members designed to be grasped by one's hand, linking the engagement members one to another on both sides of the spine as well as across the spine, such that when force is applied to the entire construct the force

is received simultaneously across the engagement members resulting in the derotation of the vertebrae.

78. When the EXPEDIUM® Vertebral Derotation System is constructed as depicted in paragraph 49 the construct necessarily infringes at least claims 2, 3, and 4 of the '121 patent and has no substantial non-infringing use and is not a stable article of commerce.

79. DePuy Synthes, without license or authorization to do so, infringes the '121 patent by manufacturing, selling, distributing, loaning, or otherwise making available the VIPER® 3D MIS Correction Set to surgeons performing spinal derotation procedures and thus infringing the systems of the '121 patent, for example in claims 2, 3, and 4.

80. DePuy Synthes, without license or authorization to do so, contributes to or induces the infringement of the '121 patent by manufacturing, selling, distributing, loaning, or otherwise making available the VIPER® 3D MIS Correction Set to surgeons for assembly into the systems of the '121 patent, for example in claims 2, 3, and 4.

81. As shown in Exhibit H, DePuy Synthes provides either along with or in conjunction with the VIPER® 3D MIS Correction Set, education, or encouragement to surgeons performing spinal derotation procedures to infringe at least the identified claims of the '121 patent.

82. For example, as shown above in paragraph 54, when the VIPER® 3D MIS Correction Set is assembled on three levels of vertebrae it will have at least two sets of pedicles screws implanted in multiple levels of vertebrae totaling six pedicle screws, engagement members which act as levers attached to the pedicle screws, said engagement members designed to be grasped by one's hand, linking the engagement members one to another on both sides of the spine as well as across the spine, such that when force is applied to the entire construct the

force is received simultaneously across the engagement members resulting in the derotation of the vertebrae.

83. When the VIPER® 3D MIS Correction Set is constructed across three levels of vertebrae following what is shown in paragraph 54 the construct necessarily infringes at least claims 2, 3, and 4 of the '121 patent and has no substantial non-infringing use and is not a stable article of commerce.

84. At all times relevant to this cause of action, DePuy Synthes provided the instruction, education, encouragement, or direction described above to surgeons with the intent of having those surgeons construct and use the systems of the '121 patent and infringe the claims therein.

85. DePuy Synthes knows and at all relevant times has known of its infringement of the '121 patent or at the very least has been willfully blind to its infringement of the '121 patent.

86. Because DePuy Synthes knows and at all relevant times has known of its infringement of the '121 patent or at the very least has been willfully blind to its infringement of the '121 patent its infringement is deliberate and willful.

87. Dr. Barry has been and continues to be damaged and irreparably harmed by DePuy Synthes's infringement of the '121 patent.

88. Upon information and belief, such infringement has been, and will continue to be, willful and upon further belief DePuy Synthes lacks any reasonable invalidity or non-infringement defense making this case exceptional and entitling Dr. Barry to increased damages and reasonably attorney's fees pursuant to 35 U.S.C. §§ 284 and 285.

COUNT III: WILLFUL INFRINGEMENT OF THE '301 PATENT

89. Dr. Barry incorporates by reference the averments of paragraphs 1-88 of this Complaint as though fully set forth here.

90. DePuy Synthes, without license or authorization to do so, infringes the '301 patent by manufacturing, selling, distributing, loaning, or otherwise making available the EXPEDIUM® Vertebral Derotation System to surgeons performing spinal derotation procedures and thus infringing the systems of the '301 patent, for example in claims 1-5.

91. DePuy Synthes, without license or authorization to do so, contributes to or induces the infringement of the '301 patent by manufacturing, selling, distributing, loaning, or otherwise making available the EXPEDIUM® Vertebral Derotation System to surgeons for assembly into the systems of the '301 patent and the methods of the '301 patent, for example in claims 1-10.

92. As shown in Exhibits F and G, DePuy Synthes provides either along with or in conjunction with the EXPEDIUM® Vertebral Derotation System instruction, education, or encouragement to surgeons performing spinal derotation procedures to infringe at least the identified claims of the '301 patent.

93. For example, as shown above in paragraph 49, when assembled the EXPEDIUM® Vertebral Derotation System has at least two sets of pedicles screws implanted in multiple levels of vertebrae totaling six pedicle screws, engagement members which act as levers attached to the pedicle screws, said engagement members designed to be grasped by one's hand, linking the engagement members one to another on both sides of the spine as well as across the spine, such that when force is applied to the entire construct the force is received simultaneously across the engagement members resulting in the derotation of the vertebrae.

94. When the EXPEDIUM® Vertebral Derotation System is constructed as depicted in paragraph 49 the construct necessarily infringes the claims of the '301 patent and has no substantial non-infringing use and is not a stable article of commerce.

95. DePuy Synthes, without license or authorization to do so, infringes the '301 patent by manufacturing, selling, distributing, loaning, or otherwise making available the VIPER® 3D MIS Correction Set to surgeons performing spinal derotation procedures and thus infringing the systems of the '301 patent, for example in claims 1-5.

96. DePuy Synthes, without license or authorization to do so, contributes to or induces the infringement of the '301 patent by manufacturing, selling, distributing, loaning, or otherwise making available the VIPER® 3D MIS Correction Set to surgeons for assembly into the systems of the '301 patent and the methods of the '301 patent, for example in claims 1-10.

97. As shown in Exhibit H, DePuy Synthes provides either along with or in conjunction with the VIPER® 3D MIS Correction Set instruction, education, or encouragement to surgeons performing spinal derotation procedures to infringe at least the identified claims of the '301 patent.

98. For example, as shown above in paragraph 54, when the VIPER® 3D MIS Correction Set is assembled on three levels of vertebrae it will have at least two sets of pedicles screws implanted in multiple levels of vertebrae totaling six pedicle screws, engagement members which act as levers attached to the pedicle screws, said engagement members designed to be grasped by one's hand, linking the engagement members one to another on both sides of the spine as well as across the spine, such that when force is applied to the entire construct the force is received simultaneously across the engagement members resulting in the derotation of the vertebrae.

99. When the VIPER® 3D MIS Correction Set is constructed across three levels of vertebrae following what is shown in paragraph 54 the construct necessarily infringes the claims of the '301 patent and has no substantial non-infringing use and is not a stable article of commerce.

100. At all times relevant to this cause of action, DePuy Synthes provided the instruction, education, encouragement, or direction described above to surgeons with the intent of having those surgeons construct and use the systems of the '301 patent and infringe the claims, including the methods, therein.

101. DePuy Synthes knows and at all relevant times has known of its infringement of the '301 patent or at the very least has been willfully blind to its infringement of the '301 patent.

102. Because DePuy Synthes knows and at all relevant times has known of its infringement of the '301 patent or at the very least has been willfully blind to its infringement of the '301 patent its infringement is deliberate and willful.

103. Dr. Barry has been and continues to be damaged and irreparably harmed by DePuy Synthes's infringement of the '301 patent.

104. Upon information and belief, such infringement has been, and will continue to be, willful and upon further belief DePuy Synthes lacks any reasonable invalidity or non-infringement defense making this case exceptional and entitling Dr. Barry to increased damages and reasonably attorney's fees pursuant to 35 U.S.C. §§ 284 and 285.

COUNT IV: WILLFUL INFRINGEMENT OF THE '787 PATENT

105. Dr. Barry incorporates by reference the averments of paragraphs 1-104 of this Complaint as though fully set forth here.

106. DePuy Synthes, without license or authorization to do so, contributes to or induces the infringement of the '787 patent by manufacturing, selling, distributing, loaning, or otherwise making available the EXPEDIUM® Vertebral Derotation System to surgeons performing spinal derotation procedures resulting in the performance of the methods claimed in the '787 patent, for example in claims 1-9.

107. As shown in Exhibits F and G, DePuy Synthes provides either along with or in conjunction with the EXPEDIUM® Vertebral Derotation System instruction, education, or encouragement to surgeons performing spinal derotation procedures to infringe at least the identified claims of the '787 patent.

108. For example, as shown above in paragraph 49, when assembled the EXPEDIUM® Vertebral Derotation System has at least two sets of pedicles screws implanted in multiple levels of vertebrae totaling more than four screws, engagement members which act as levers attached to the pedicle screws, said engagement members designed to be grasped by one's hand, linking the engagement members one to another on both sides of the spine as well as across the spine, such that when force is applied to the entire construct the force is received simultaneously across the engagement members resulting in the derotation of the vertebrae.

109. When the EXPEDIUM® Vertebral Derotation System is constructed as depicted in paragraph 49 the construct necessarily infringes the claims the '787 patent and has no substantial non-infringing use and is not a stable article of commerce.

110. DePuy Synthes, without license or authorization to do so, contributes to or induces the infringement of the '787 patent by manufacturing, selling, distributing, loaning, or otherwise making available the VIPER® 3D MIS Correction Set to surgeons performing spinal

derotation procedures resulting in the performance of the methods claimed in the '787 patent, for example in claims 1-9.

111. As shown in Exhibit H, DePuy Synthes provides either along with or in conjunction with the VIPER® 3D MIS Correction Set instruction, education, or encouragement to surgeons performing spinal derotation procedures to infringe at least the identified claims of the '787 patent.

112. For example, as shown above in paragraph 54, when assembled the VIPER® 3D MIS Correction Set has at least two sets of pedicles screws implanted in multiple levels of vertebrae totaling more than four screws, engagement members which act as levers attached to the pedicle screws, said engagement members designed to be grasped by one's hand, linking the engagement members one to another on both sides of the spine as well as across the spine, such that when force is applied to the entire construct the force is received simultaneously across the engagement members resulting in the derotation of the vertebrae.

113. When the VIPER® 3D MIS Correction Set is constructed as depicted in paragraph 54 the construct necessarily infringes the claims of the '787 patent and has no substantial non-infringing use and is not a stable article of commerce.

114. At all times relevant to this cause of action, DePuy Synthes provided the instruction, education, encouragement, or direction described above to surgeons with the intent of having those surgeons perform the methods of the '787 patent and infringe the claims therein.

115. DePuy Synthes knows and at all relevant times has known of its infringement of the '787 patent or at the very least has been willfully blind to its infringement of the '787 patent.

116. Because DePuy Synthes knows and at all relevant times has known of its infringement of the '787 patent or at the very least has been willfully blind to its infringement of the '787 patent its infringement is deliberate and willful.

117. Dr. Barry has been and continues to be damaged and irreparably harmed by DePuy Synthes's infringement of the '787 patent.

118. Upon information and belief, such infringement has been, and will continue to be, willful and upon further belief DePuy Synthes lacks any reasonable invalidity or non-infringement defense making this case exceptional and entitling Dr. Barry to increased damages and reasonable attorney's fees pursuant to 35 U.S.C. §§ 284 and 285.

COUNT V: WILLFUL INFRINGEMENT OF THE '788 PATENT

119. Dr. Barry incorporates by reference the averments of paragraphs 1-118 of this Complaint as though fully set forth here.

120. DePuy Synthes, without license or authorization to do so, infringes the '788 patent by manufacturing, selling, distributing, loaning, or otherwise making available the EXPEDIUM® Vertebral Derotation System to surgeons performing spinal derotation procedures and thus infringing the systems of the '788 patent, for example in claims 1-6.

121. DePuy Synthes, without license or authorization to do so, contributes to or induces the infringement of the '788 patent by manufacturing, selling, distributing, loaning, or otherwise making available the EXPEDIUM® Vertebral Derotation System to surgeons for assembly into the systems of the '788 patent, for example in claims 1-6.

122. As shown in Exhibits F and G, DePuy Synthes provides either along with or in conjunction with the EXPEDIUM® Vertebral Derotation System instruction, education, or

encouragement to surgeons performing spinal derotation procedures to infringe at least the identified claims of the '788 patent.

123. For example, as shown above in paragraph 49, when assembled the EXPEDIUM® Vertebral Derotation System has at least two sets of pedicles screws implanted in multiple levels of vertebrae totaling more than four pedicle screws, engagement members which act as levers attached to the pedicle screws, said engagement members designed to be grasped by one's hand, linking the engagement members one to another on both sides of the spine as well as across the spine, such that when force is applied to the entire construct the force is received simultaneously across the engagement members resulting in the derotation of the vertebrae.

124. When the EXPEDIUM® Vertebral Derotation System is constructed as depicted in paragraph 49 the construct necessarily infringes the claims of the '788 patent and has no substantial non-infringing use and is not a stable article of commerce.

125. DePuy Synthes, without license or authorization to do so, infringes the '788 patent by manufacturing, selling, distributing, loaning, or otherwise making available the VIPER® 3D MIS Correction Set to surgeons performing spinal derotation procedures and thus infringing the systems of the '788 patent, for example in claims 1-6.

126. DePuy Synthes, without license or authorization to do so, contributes to or induces the infringement of the '788 patent by manufacturing, selling, distributing, loaning, or otherwise making available the VIPER® 3D MIS Correction Set to surgeons for assembly into the systems of the '788 patent, for example in claims 1-6.

127. As shown in Exhibit H, DePuy Synthes provides either along with or in conjunction with the VIPER® 3D MIS Correction Set instruction, education, or encouragement

to surgeons performing spinal derotation procedures to infringe at least the identified claims of the '788 patent.

128. For example, as shown above in paragraph 54, when the VIPER® 3D MIS Correction Set is assembled it will have at least two sets of pedicles screws implanted in multiple levels of vertebrae totaling at least four pedicle screws, engagement members which act as levers attached to the pedicle screws, said engagement members designed to be grasped by one's hand, linking the engagement members one to another on both sides of the spine as well as across the spine, such that when force is applied to the entire construct the force is received simultaneously across the engagement members resulting in the derotation of the vertebrae.

129. When the VIPER® 3D MIS Correction Set is constructed as is shown in paragraph 54 the construct necessarily infringes the claims of the '788 patent and has no substantial non-infringing use and is not a stable article of commerce.

130. At all times relevant to this cause of action, DePuy Synthes provided the instruction, education, encouragement, or direction described above to surgeons with the intent of having those surgeons construct and use the system of the '788 patent and infringe the claims therein.

131. DePuy Synthes knows and at all relevant times has known of its infringement of the '788 patent or at the very least has been willfully blind to its infringement of the '788 patent.

132. Because DePuy Synthes knows and at all relevant times has known of its infringement of the '788 patent or at the very least has been willfully blind to its infringement of the '788 patent its infringement is deliberate and willful.

133. Dr. Barry has been and continues to be damaged and irreparably harmed by DePuy Synthes's infringement of the '788 patent.

134. Upon information and belief, such infringement has been, and will continue to be, willful and upon further belief DePuy Synthes lacks any reasonable invalidity or non-infringement defense making this case exceptional and entitling Dr. Barry to increased damages and reasonably attorney's fees pursuant to 35 U.S.C. §§ 284 and 285.

PRAYER FOR RELIEF

WHEREFORE, Dr. Barry requests the following relief:


- A. JUDGMENT under 35 U.S.C. § 271 that DePuy Synthes willfully infringes Dr. Barry's patents referenced and detailed above;
- B. DAMAGES under 35 U.S.C. § 284 adequate to compensate Dr. Barry for DePuy Synthes's willful infringement and continued infringement of Dr. Barry's patents referenced and detailed above;
- C. TREBLING or other enhancement of the DAMAGES pursuant to 35 U.S.C. § 284 as a result of DePuy Synthes's willful and deliberate acts of infringement;
- D. AWARD pursuant to 35 U.S.C. § 284 of costs and pre- and post- judgment interest on Dr. Barry's compensatory damages; and
- E. AWARD pursuant to 35 U.S.C. § 285 of Dr. Barry's attorneys' fees incurred in this action; and
- F. ALL OTHER RELIEF the Court deems warranted and appropriate.

JURY TRIAL REQUEST

Dr. Barry pursuant to the Seventh Amendment of the United States Constitution requests trial by jury on all issues properly heard by a jury.

Dated: July 5, 2017

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