

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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JOHN CRANE, INC.,  
JOHN CRANE PRODUCTION SOLUTIONS, INC. &  
JOHN CRANE GROUP CORP.,  
Petitioner,

v.

FINALROD IP, LLC,  
Patent Owner.

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Case IPR2016-00521  
Patent 8,851,162 B2

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Before SALLY C. MEDLEY, LYNNE E. PETTIGREW, and  
AMANDA F. WIEKER, *Administrative Patent Judges*.

WIEKER, *Administrative Patent Judge*.

DECISION  
Denying Institution of *Inter Partes* Review  
*37 C.F.R. § 42.108*

## I. INTRODUCTION

John Crane, Inc., John Crane Production Solutions, Inc., and John Crane Group Corp. (collectively, “Petitioner”), filed a Petition requesting an *inter partes* review of claims 1–40 of U.S. Patent No. 8,851,162 B2 (Ex. 1001, “the ’162 patent”). Paper 2 (“Pet.”). In response, Patent Owner, Finalrod IP, LLC, filed a Preliminary Response. Paper 6 (“Prelim. Resp.”). We have jurisdiction under 35 U.S.C. § 314, which provides that an *inter partes* review may not be instituted “unless . . . the information presented in the petition . . . shows that there is a reasonable likelihood that the petitioner would prevail with respect to at least 1 of the claims challenged in the petition.”

For the reasons set forth below, we deny institution of an *inter partes* review of the ’162 patent.

### A. Related Matter

According to Petitioner, the ’162 patent is involved in the following lawsuit: *Finalrod IP, LLC v. John Crane, Inc., et al.*, Case No. 7-15-cv-00097 (W.D. Tex. 2015). Pet. 1.

### B. The ’162 Patent

The ’162 patent relates to connectors for oil well sucker rods. Ex. 1001, 1:5–8. Specifically, the ’162 patent discloses that fiberglass or fiber composite rods 200 may be connected together with end fittings 100, to form a string 24 of connected sucker rods 10. *See id.* at 2:33–44, 2:49–58, Fig. 1. Sucker rod string 24 conveys pumping action from above-ground pumping unit 20 to downhole pump 26, to extract oil from a well. *Id.* at 1:63–2:3, 2:33–37, Fig. 1.

Figure 2 of the '162 patent is reproduced below.

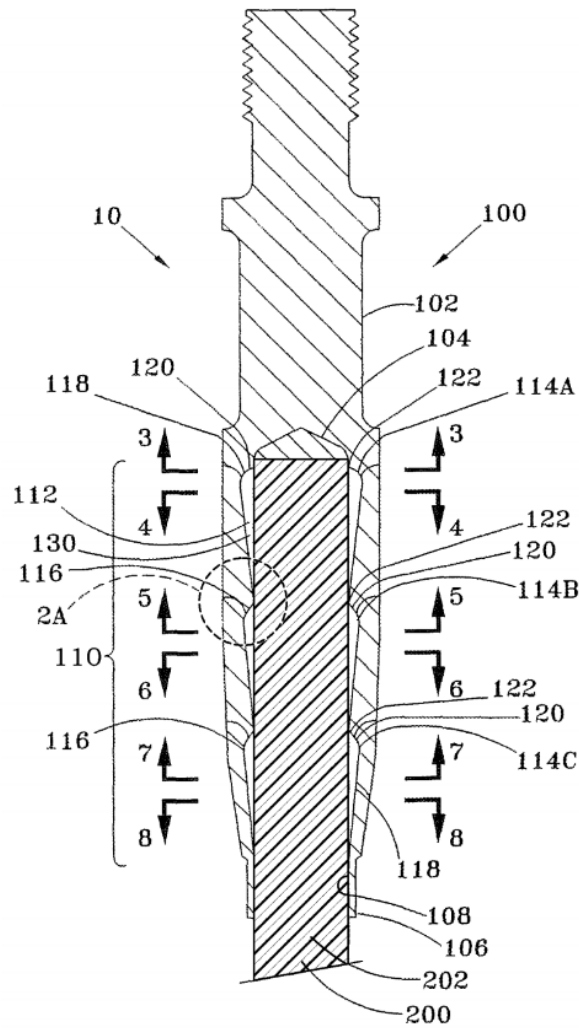


FIG. 2

Figure 2 depicts a cross-sectional view of a rod and associated end fitting. *Id.* at 1:21–22. End fitting 100 includes interior surface 108, which comprises wedge system 110. *Id.* at 2:58–60. Wedge system 110 defines cavity 112 having, for example, three wedge-shaped portions 114A–114C. *Id.* at 2:60–66. The '162 patent discloses that “[e]ach wedged-shaped portion 114 has an apex 116, a leading edge 118 and a trailing edge 120 extending from the apex 116. Each apex 116 forms a perimeter 122 within

the cavity 112 that is the narrowest part of the cavity 112 associated with each wedge shaped portion 114.” *Id.* at 2:66–3:4; *see also id.* at 7:19–25.

The ’162 patent discloses that this arrangement of wedge-shaped portions creates a “force differential” and “force transfer continuum” that ensures “constant effectiveness between the end fitting 100 and the fiber composite rod 200.” *Id.* at 3:8–41.

### *C. Illustrative Claim*

Claims 1, 11, 20, and 31 are independent claims. Claims 2–10 depend directly or indirectly from claim 1; claims 12–19 depend directly or indirectly from claim 11; claims 21–30 depend directly or indirectly from claim 20; and claims 32–40 depend directly or indirectly from claim 31.

Claim 1, reproduced below, is illustrative:

1. An end fitting for a sucker rod comprising:  
an exterior surface, a closed end, an open end, and an interior surface,

the interior surface comprising a wedge system defining a cavity, wherein the wedge system comprises three wedge shaped portions having an apex, a leading edge and a trailing edge, each apex forming a perimeter of equal dimension within the cavity that is the narrowest part of the cavity associated with each wedge shaped portion such that the leading edge is longer than the trailing edge with the leading edge facing the open end and the trailing edge facing the closed end with respect to each wedge shaped portion,

wherein the leading edge is shorter at the closed end and increases progressively from the closed end to the open end thereby compensating for a compression of the sucker rod in the end fitting, the trailing edge is shorter at the closed end and increases progressively from the closed end to the open end thereby compensating for a back pressure associated with the sucker rod in the end fitting,

wherein the first wedge shaped portion is proximate to the closed end and receives compressive forces that are greater than the compressive forces which the second wedge shaped portion receives, and wherein the second wedge shaped portion receives compressive forces that are greater than the compressive forces which the third wedge shaped portion receives, such that the compressive forces create a force differential along the wedge system greater at the closed end of the fitting and decreasing toward the open end of the fitting.

Ex. 1001, 8:33–63; *see also* Pet. 21–22 (“[C]laim 1 is representative of all elements of the independent claims other than elements [31.4] and [31.5].”).

#### *D. Prior Art Relied Upon*

Petitioner relies upon the following prior art references:

Rutledge '431	US 6,193,431 B1	Feb. 27, 2001	(Ex. 1003)
Strandberg	US 4,475,839	Oct. 9, 1984	(Ex. 1004)
Morrow	US 4,662,774	May 5, 1987	(Ex. 1005)
Iwasaki	US 4,822,201	Apr. 18, 1989	(Ex. 1007)
Rutledge '560	US 4,919,560	Apr. 24, 1990	(Ex. 1008)

#### *E. Asserted Grounds of Unpatentability*

Petitioner asserts the following grounds of unpatentability:

<b>References</b>	<b>Basis</b>	<b>Challenged Claim(s)</b>
Rutledge '431 and Strandberg	§ 103(a)	1, 6–11, 16–20, 25–28, 30, and 31
Rutledge '431, Strandberg, and Morrow	§ 103(a)	2–5, 12–15, 21–24, 32–38
Rutledge '431, Strandberg, and Iwasaki	§ 103(a)	29 and 39

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