

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

FERNO-WASHINGTON, INC. and FERNO GROUP, INC.,
Petitioner,

v.

STRYKER CORPORATION,
Patent Owner.

IPR2024-00042
Patent RE44,884 E

Before HYUN J. JUNG, JAMES A. TARTAL, and
MICHAEL L. WOODS, *Administrative Patent Judges*.

WOODS, *Administrative Patent Judge*.

DECISION
Denying Institution of *Inter Partes* Review
35 U.S.C. § 314

I. INTRODUCTION

Ferno-Washington, Inc., and Ferno Group, Inc., (collectively, “Petitioner”) filed a Petition (Paper 2, “Pet.”) for *inter partes* review of claims 3 and 4 (the “Challenged Claims”) of U.S. Patent No. RE44,844 E (Ex. 1001, “the ’884 patent”). Pet. 1. Stryker Corporation (“Patent Owner”) filed a Preliminary Response (Paper 6, “Prelim. Resp.”).

Under 35 U.S.C. § 314 and 37 C.F.R. § 42.4(a), we have authority to institute an *inter partes* review if “the information presented in the petition . . . and any response . . . 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.” 35 U.S.C. § 314(a). Upon consideration of the evidence and arguments in the Petition (including its supporting testimonial evidence) as well as the evidence and arguments in the Preliminary Response, for the reasons below, we determine that the Petition fails to show a reasonable likelihood that Petitioner would prevail with respect to either of the Challenged Claims. We thus deny institution of *inter partes* review.

II. BACKGROUND

A. Real Parties-in-Interest

The parties identify themselves as the sole real-parties-in-interest. Pet. 1; Paper 5, 2.

B. Related Matters

The parties identify the following court proceeding as relating to the ’884 patent: *Stryker Corporation and Stryker Sales, LLC, v. Ferno-*

Washington, Inc. and Ferno Group, Inc., Case No. 1:22-cv-00588-MB (S.D. Ohio). Pet. 1; Paper 5, 2.

C. Overview of the '884 Patent

The '884 patent is titled “Ambulance Cot with Pinch Safety Feature.” Ex. 1001, code (54). The '884 patent describes a cot with a wheel supported base and a litter raisable and lowerable by a powered elevating mechanism oriented between the base and the litter. *Id.* at code (57). The cot may have wireless communication capability to facilitate communication between the cot and a loading system on an ambulance, as well as facilitating wireless troubleshooting via a handheld wireless unit. *Id.* We reproduce Figure 1 of the '884 patent, below:

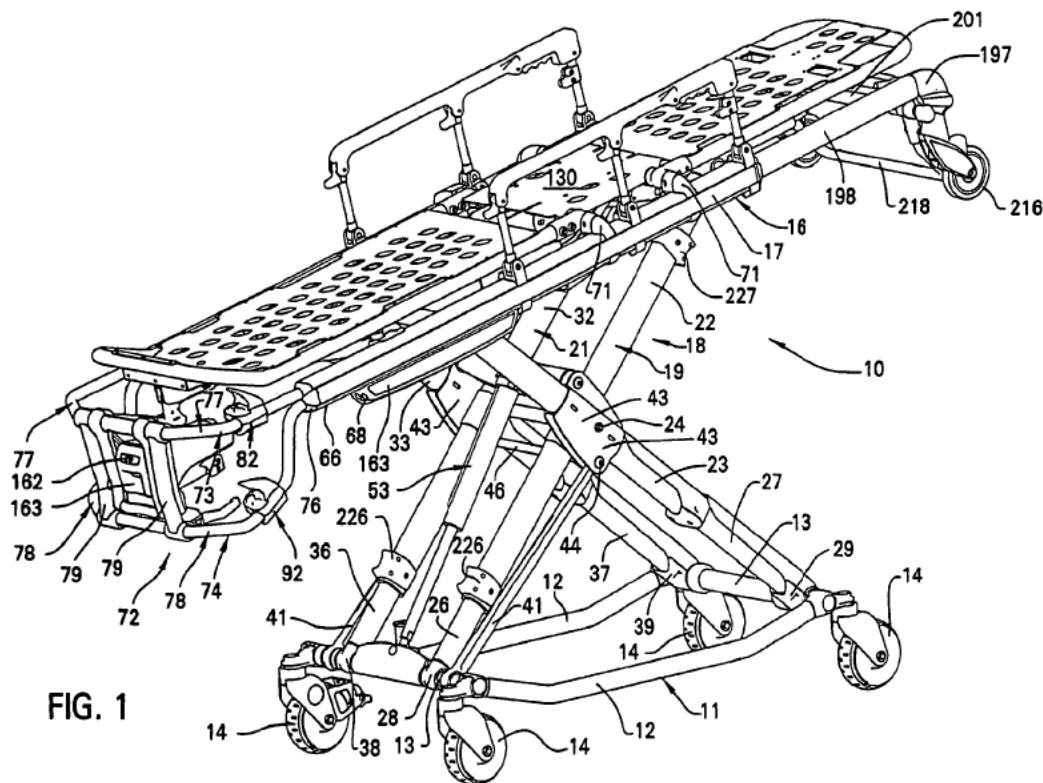


Figure 1, reproduced above, is an isometric view of an ambulance cot embodying the invention of the '884 patent.¹ Ex. 1001, 2:13–15. In particular, Figure 1 depicts ambulance cot 10 with base frame 11 with longitudinally-extending side rails 12 and crosswise-extending rails 13 interconnected to form a rectangle, with caster wheels connected to each corner. *See id.* at 4:19–28. Cot 10 further includes litter 16 comprising litter frame 17, with elevating mechanism 18 provided between base frame 11 and litter frame 17. *See id.* at 4:29–31. Elevating mechanism 18 includes a pair of side-by-side oriented X frames 19, 21, which helps lifting and lowering litter 16 relative to the ground. *See id.* at 4:30–34. X-frame 19 includes a pair of X-frame members 22, 23, connected together at their mid-length by pivot axle 24. *See id.* at 4:35–37. X-frame 21 includes similar members 32, 33. *See id.* at 4:48–50.

We further reproduce Figure 3 of the '884 patent, below:

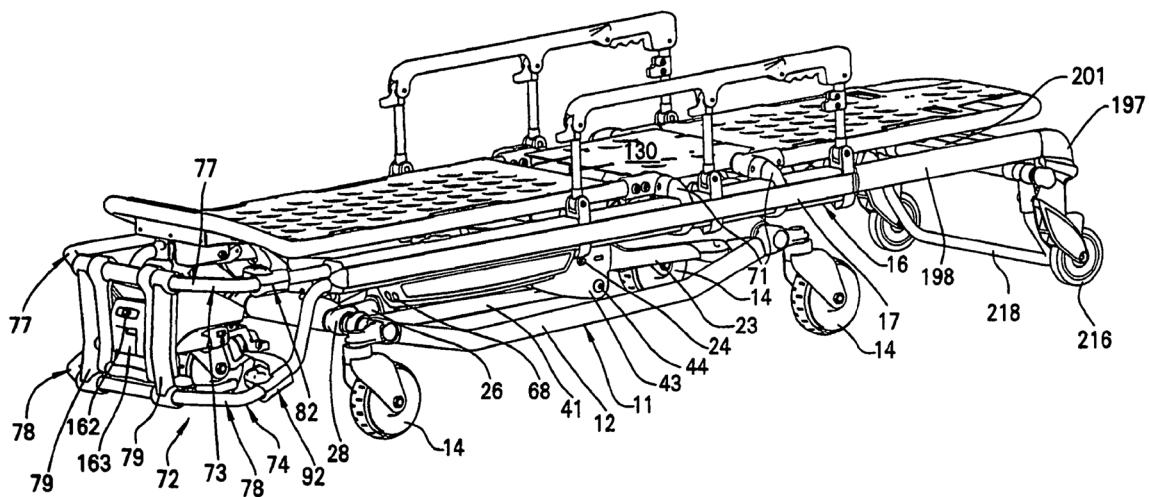


FIG. 3

¹ Bold emphasis to reference numerals in patent documents omitted here and throughout the remainder of this Decision.

Figure 3 “is an isometric view of an ambulance cot similar to FIG. 1 except that the ambulance cot is in the fully collapsed and lowered position.”

Ex. 1001, 2:20–22. The ’884 patent describes,

When the litter 16 is lowered to the position illustrated in FIG. 3, mounts 226 (FIG. 1) will operatively engage a cross rail provided on the underside of the litter 16 and additional mounts 227 will rest on the cross rail 13 on the base. *The mounts 226 and 227 are oriented so that they are not readily accessible by attendants in the region of the ambulance cot and, therefore, pinching issues are avoided.*

Id. at 19:49–55 (emphasis added).

D. Challenged Claims

Petitioner challenges claims 3 and 4 of the ’884 patent. Pet. 1. Claim 3 is independent. Ex. 1001, 22:22–44. We reproduce those claims below:

3. An ambulance cot, comprising:

a base frame;

a litter frame; and

an X-frame support mechanism interconnecting said base frame and said litter frame and being configured to support said litter frame in one of a plurality of positions relative to said base frame, said support mechanism including at least one pair of frame members pivotally secured to each other proximate the mid-length thereof, said at least one pair of frame members each having opposite ends respectively secured to one of said base frame and said litter frame, at least one of said pair of frame members having a first mount oriented between said mid-length thereof and said [base] *litter* frame, said first mount being configured to [respectively] engage said base frame in response to said litter frame becoming proximate said base frame; and

wherein said base frame has longitudinally extending side rails and at least one crosswise member interconnecting

said side rails and being oriented in a path of movement of said first mount as said litter frame becomes proximate said base frame so that said first mount engages and rests upon said at least one crosswise member.

4. The ambulance cot according to claim 3, wherein said first mount engages and rests upon said at least one crosswise member [and] between the respective said side rails of said base frame.

Ex. 1001, 22:22–48.

E. Asserted Grounds of Unpatentability

Petitioner asserts that the Challenged Claims are unpatentable based on the following grounds (Pet. 5–6):

Ground	Claims Challenged	35 U.S.C. § ²	References/Basis
1	3, 4	103	Ferneau A ³ , Ferneau B ⁴
2	3, 4	103	Ferneau A, Ferneau B, Bourgraf ⁵

Petitioner also relies on the Declaration of Glen Stevick, Ph.D. (Ex. 1002). *See, e.g.*, Pet. 2 n.1 (referencing Exhibit 1002); *see also* Ex. 1017 (the corrected version of Exhibit 1002 with Dr. Stevick’s signed execution, which was missing in Exhibit 1002).

² The ’884 patent was filed on May 9, 2011, before the AIA took effect, and the pre-AIA version of 35 U.S.C. applies to this proceeding. *See* Ex. 1001, code (22).

³ U.S. Pat. No. 6,701,545 B1, issued Mar. 9, 2004 (Ex. 1008, “Ferneau A”).

⁴ U.S. Pat. No. 4,192,541, issued Mar. 11, 1980 (Ex. 1009, “Ferneau B”).

⁵ U.S. Pat. No. 3,644,944, issued Feb. 29, 1972 (Ex. 1010, “Bourgraf”).

III. ANALYSIS

A. *Level of Ordinary Skill in the Art*

Petitioner submits that:

A person having ordinary skill in the art (“POSITA” [or “POSA”]) as of the claimed priority date would have had a bachelor’s degree in mechanical engineering, or a related field or equivalent coursework or experience, and two years of industry experience. Lack of work experience can be remedied by additional education, and vice versa.

Pet. 10. (citing Ex. 1002 ¶ 31).

Patent Owner argues that Petitioner’s “definition lacks sufficient specificity to the subject matter of the [’884 patent] and is inconsistent with itself.” Prelim. Resp. 9. Patent Owner instead submits that a POSITA:

would have an engineering or design background and *significant experience* designing, developing, manufacturing, and studying the types of mechanisms found on patient supports, cots, cot fasteners, or other similar mechanisms. More particularly, a hypothetical POSA would be a person with a Bachelor’s degree in engineering or a similar technical degree or equivalent work experience and at least *about 3-5 years’ experience designing, developing, manufacturing, or studying the types of mechanisms found on patient supports, cots, cot fasteners, or other similar mechanisms*.

Id. at 8 (emphasis added).

Patent Owner acknowledges, however, that “the particular definition of a person of ordinary skill in the art . . . [is not] determinative at this stage because the Petition can be denied under [Petitioner’s] own proposed skill level.” *Id.* (citing Pet. 10). Petitioner’s definition reflects a lower level of skill, as it does not require a POSITA to have “about 3-5 years’ experience designing, developing, manufacturing, or studying the types of mechanisms

found on patient supports, cots, cot fasteners, or other similar mechanisms,” as Patent Owner proposes. *Compare* Prelim. Resp. 8, *with* Pet. 10.

For purposes of this Decision, we adopt Petitioner’s assessment of the level of ordinary skill in the art. We find Petitioner’s definition is consistent with the ’884 patent and the asserted prior art. Pet. 10; *see Okajima v. Bourdeau*, 261 F.3d 1350, 1355 (Fed. Cir. 2001).

B. Claim Construction

In an *inter partes* review, we apply the same claim construction standard that would be used in a civil action under 35 U.S.C. § 282(b). 37 C.F.R. § 42.100(b). In applying this standard, we generally give claim terms their ordinary and customary meaning as would be understood by a person of ordinary skill in the art at the time of the invention and in the context of the entire patent disclosure. *See id.*; *Phillips v. AWH Corp.*, 415 F.3d 1303, 1312–14 (Fed. Cir. 2005) (*en banc*).

Petitioner does not advance construction of any particular term and submits that no term requires construction beyond its plain and ordinary meaning. *See* Pet. 11.

Similarly, Patent Owner does not propose construction of any claim term and submits that even under the plain and ordinary meaning, as proposed by Petitioner, the Challenged Claims are not invalid. *See* Prelim. Resp. 6–8.

For purposes of this Decision, we need not and do not expressly construe any claim term. *See Nidec Motor Corp. v. Zhongshan Broad Ocean Motor Co.*, 868 F.3d 1013, 1017 (Fed. Cir. 2017) (stating that “we need only construe terms ‘that are in controversy, and only to the extent

necessary to resolve the controversy” (quoting *Vivid Techs., Inc. v. Am. Sci. & Eng’g, Inc.*, 200 F.3d 795, 803 (Fed. Cir. 1999))).

C. Principles of Law

Petitioner’s challenge is based on obviousness. *See* Pet. 12.

A patent claim is unpatentable as obvious if the differences between the claimed subject matter and the prior art are such that the claimed subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which the claimed subject matter pertains. *See KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 406 (2007). The question of obviousness is resolved on the basis of underlying factual determinations including: (1) the scope and content of the prior art; (2) any differences between the claimed subject matter and the prior art; (3) the level of ordinary skill in the art; and, when presented, (4) objective evidence of nonobviousness. *Graham v. John Deere Co.*, 383 U.S. 1, 17–18 (1966).

We analyze the asserted grounds of unpatentability in accordance with these principles.

D. Ground 1: Alleged Obviousness over Ferneau A and Ferneau B

Petitioner submits that claims 3 and 4 are unpatentable over Ferneau A and Ferneau B. Pet. 11.

1. Ferneau A (Ex. 1008)

Ferneau A is a U.S. Patent titled “Multiple Level Roll-In Cot.” Ex. 1008, code (54). Ferneau A discloses a “multiple level elevating cot adapted to be rolled into emergency vehicles, the cot having a wheeled

undercarriage supporting a cot frame having a leading end and a trailing end, and adapted to selectively secure the cot frame in a plurality of elevational positions.” *Id.* at code (57). We reproduce Figure 1a of Ferneau, below:

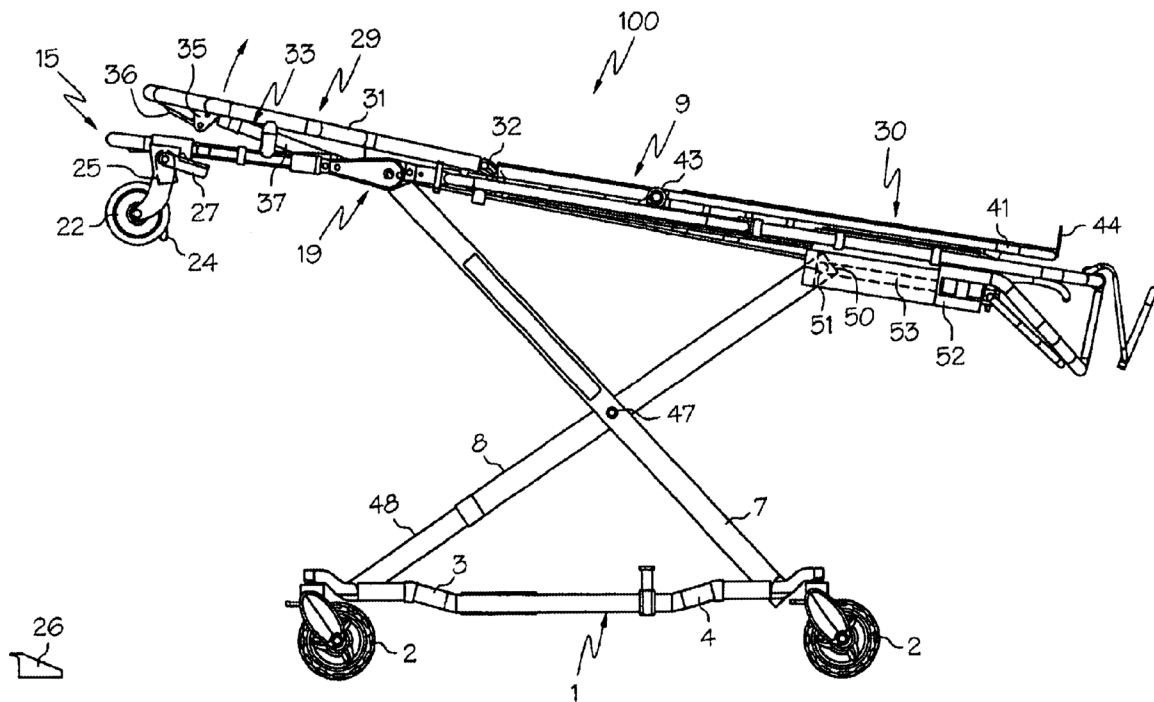


FIG. 1a

Figure 1a, reproduced above, is a side view of an exemplary cot having an integral top. *See id.* at 3:9–11. In particular, Figure 1a depicts a cot having undercarriage 1 with cot frame 9. *See id.* at 3:49–51. Cot frame 9 includes opposing tubular side frame members 10, 11, which are interconnected at the foot or trailing end by a transverse tubular end member 12. *Id.* at 3:51–54. At their leading or forward ends, side rails 10, 11 each terminate at a respective hinge pivot 14. *Id.* at 3:54–56.

We further reproduce Ferneau A's Figure 2a, below:

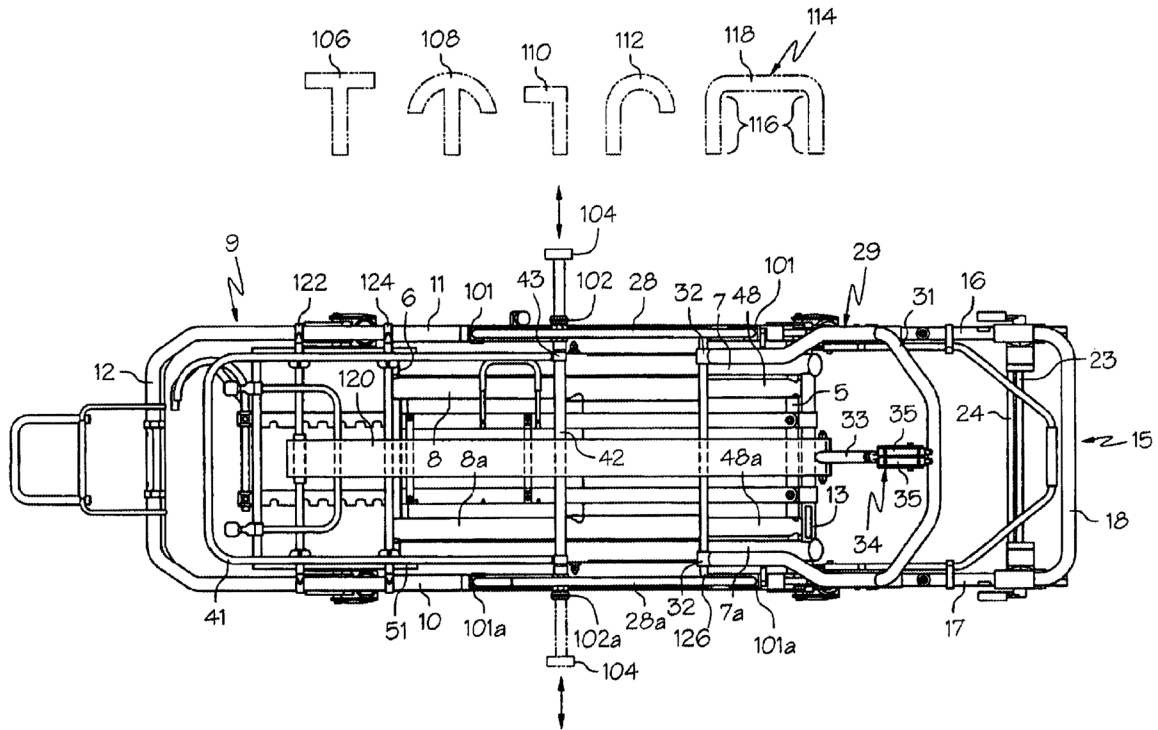


FIG. 2a

Figure 2a, reproduced above, is a top-plan view of the cot depicted in Figure 1. *See* Ex. 1008, 3:11–12. In particular, Figure 2a depicts that cot frame 9 may include various adjustable features, including folding side arms 28, multiple-position backrest 29, and an adjustable leg section 30 for placing the patient in a shock position. *See id.* at 4:25–29.

We further reproduce Ferneau A’s Figure 3, below:

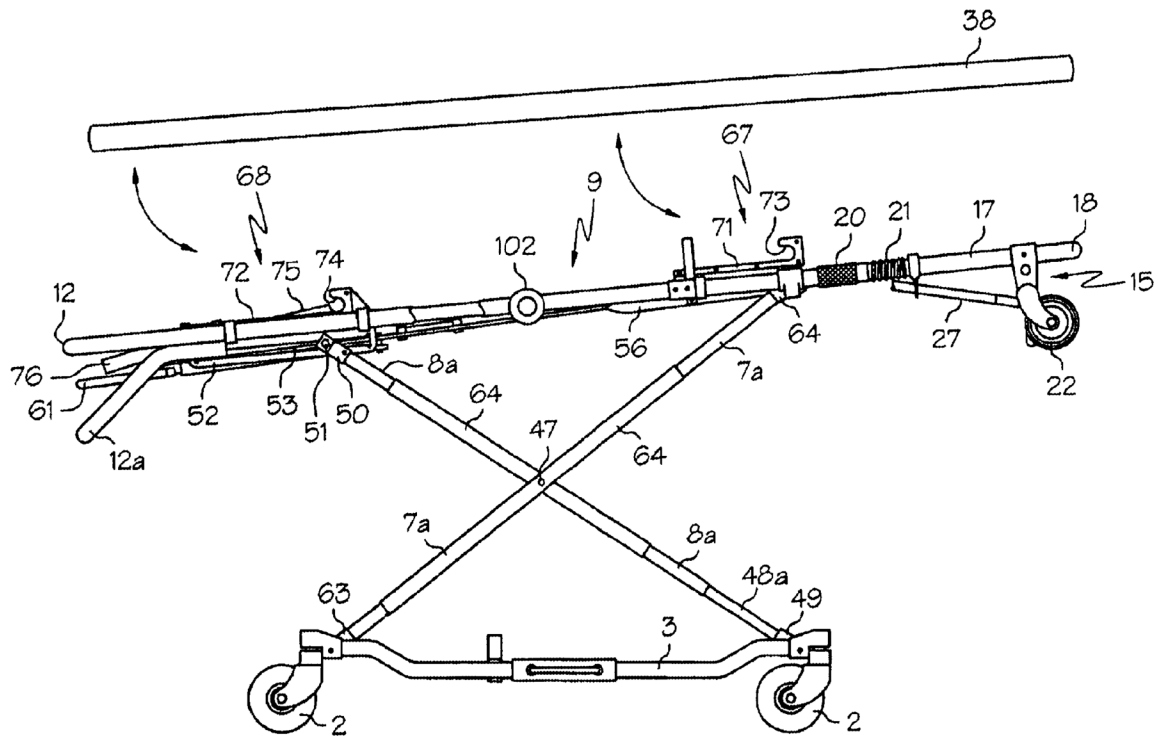


FIG. 3

Figure 3, reproduced above, is another embodiment of a cot structure, with a stretcher located on top. *See id.* at 3:24–26. Specifically, Figure 3 depicts cot frame 9 with leading seat 67 and trailing seat 68. *Id.* at 6:12–14. Seats 67 and 68 are adapted to receive frame members (not shown) of removable top 38, which may be a simple stretcher. *See id.* at 6:14–18.

We further reproduce Figure 4 of Ferneau A, below:

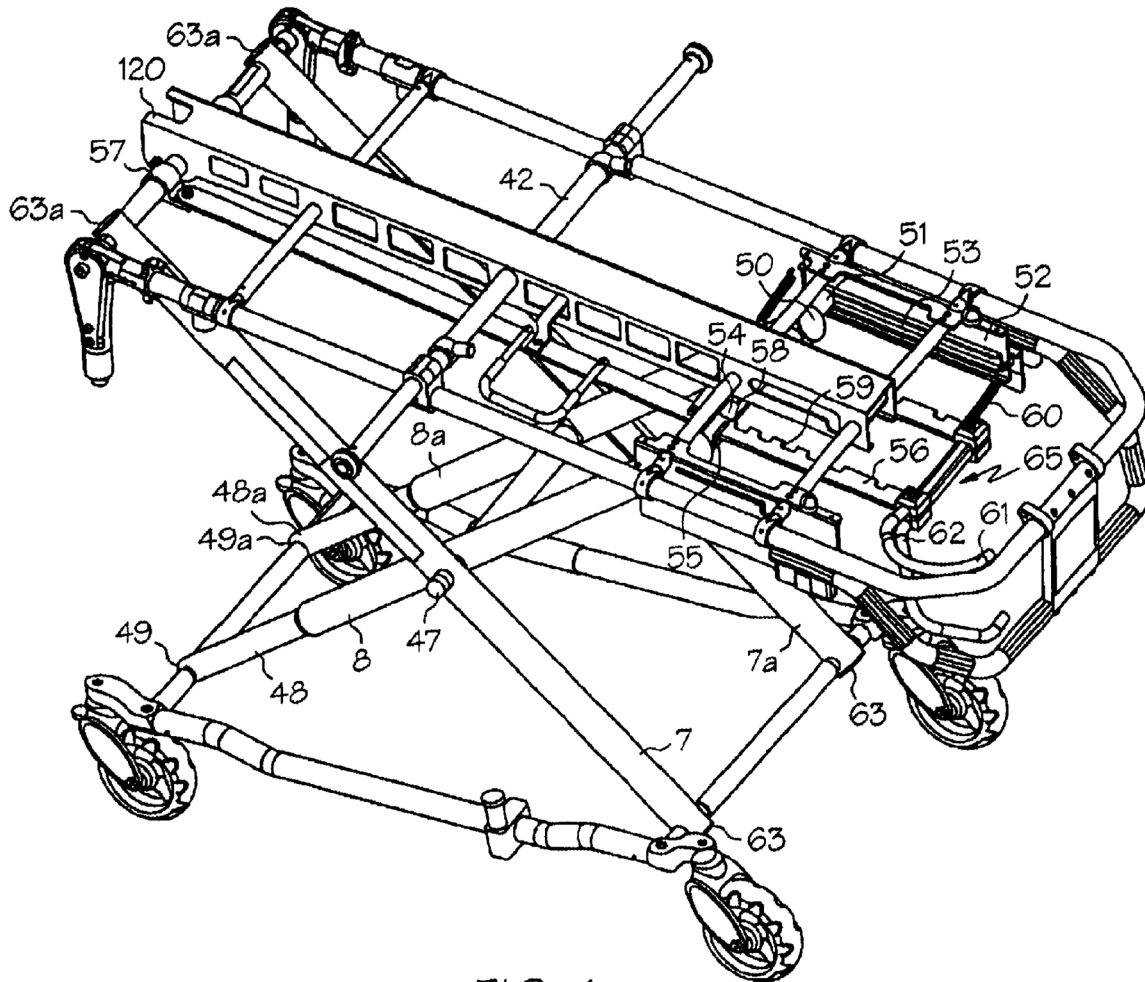


FIG. 4

Figure 4, reproduced above, is an elevational perspective view of Ferneau A's cot structure embodiment, with parts removed to aid in illustration. *See id.* at 3:21–23. As explained below, Petitioner references this figure while relying on an unnumbered structure, which Petitioner describes as a “post.” *See, e.g.,* Pet. 6–7.

2. *Ferneau B (Ex. 1009)*

Ferneau B is a U.S. Patent titled “Cart Having Extensible Auxiliary Wheels.” Ex. 1009, code (54). Ferneau B discloses a cart having a frame

with four legs that can swing rearwardly so that the frame can collapse. *See id.* at code (57). We reproduce Figure 1 of Ferneau B, below:

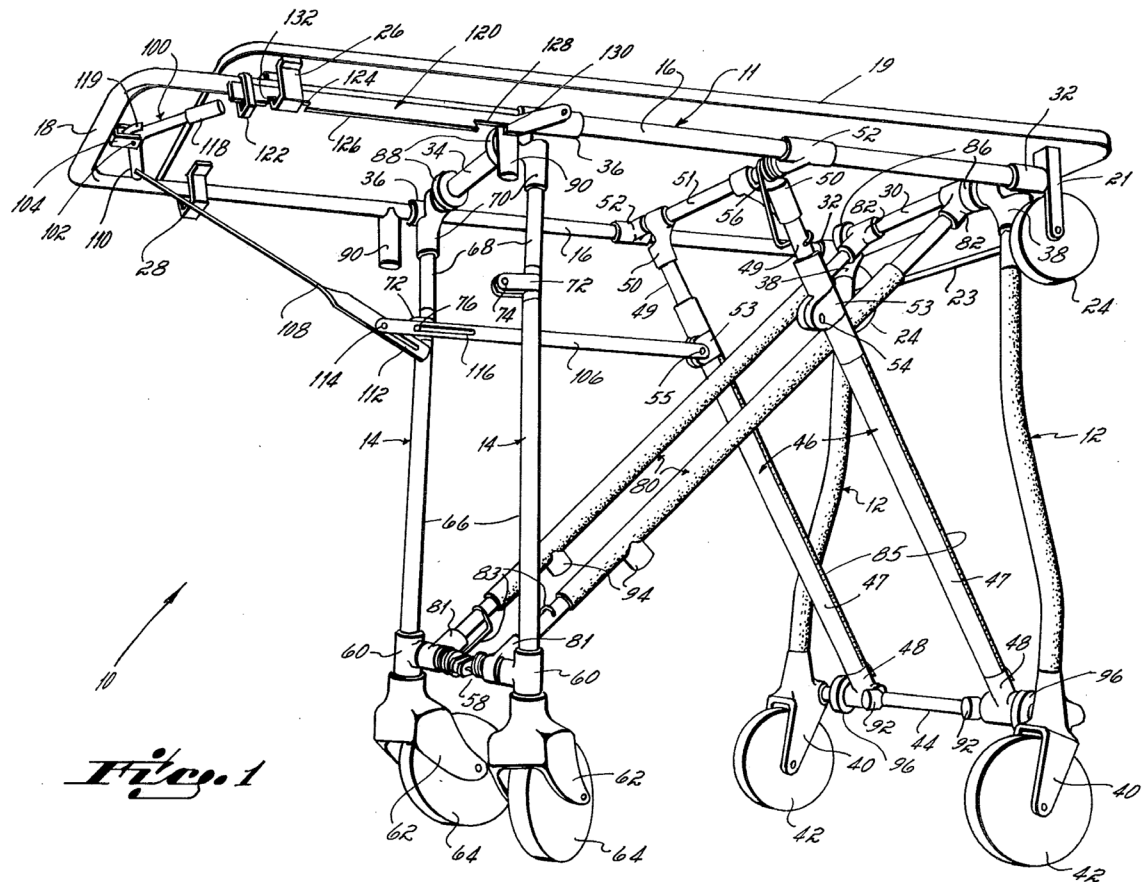


Figure 1, reproduced above, depicts a side elevational view of Ferneau B's cart with wheels in the extended position. *See id.* at 2:52–53. Figure 1 includes, among other things, rubber bumpers 92, 94, mounted on crossbar 44 and braces 80, respectively. *See id.* at 4:15–18. Rubber bumpers 92, 94 engage with one another when the legs of the cot are collapsed. *See id.*

We further reproduce Figure 4 of Ferneau B, below:

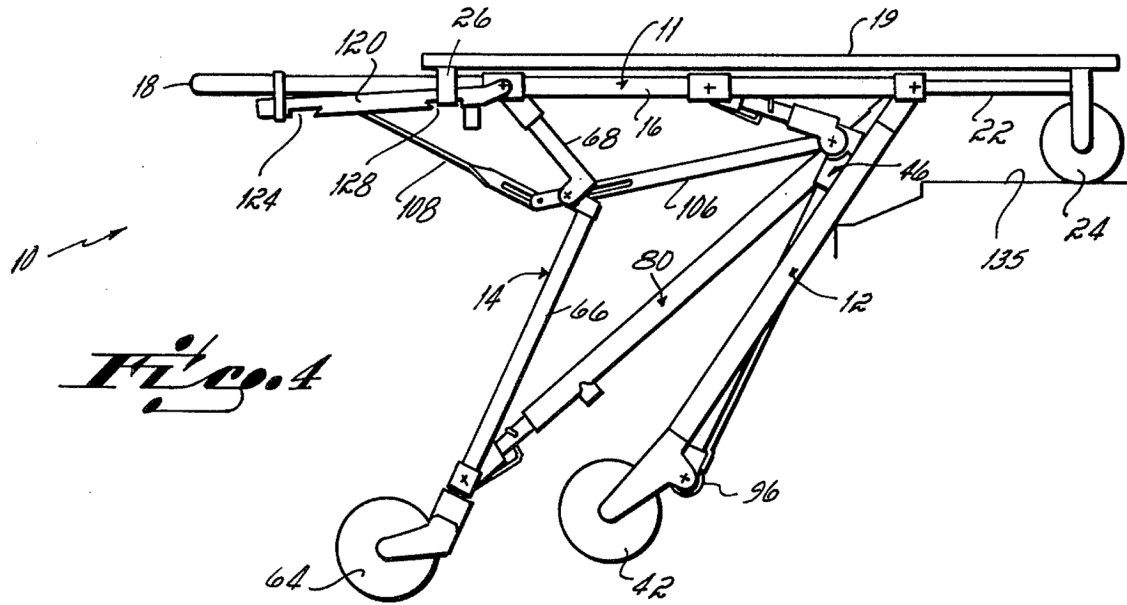


Figure 4, reproduced above, is a side elevational view with the cart legs in a partially-collapsed state. *See* Ex. 1009, 2:57–59. In particular, Figure 4 depicts cart 10 including frame 11 with forward legs 12 and rearward legs 14. *See id.* at 2:65–66.

3. Independent Claim 3

We address the limitations of claim 3 as presented by Petitioner. *See* Pet. 12–16.

a. “An ambulance cot”

Petitioner submits that Ferneau A “teaches ‘a multiple level elevating cot adapted to be rolled into emergency vehicles,’ *i.e.*, an ambulance cot.” Pet. 12 (citing Ex. 1008, Abstr., 1:5, 2:21–23, 2:30–32, 2:44–46; Ex. 1002 ¶ 54).

Without determining whether the preamble is limiting, we note that Ferneau A discloses that its “invention relates to ambulance cots.” Ex. 1008,

1:5. Multiple figures from Ferneau A depict a cot. *See id.* at Figs. 1a, 1b, 2a, 3, 4, 5, 6; *see also id.* at 3:8–29.

b. “a base frame”

Petitioner submits that Ferneau A “teaches that ambulance cot 100 comprises a base frame (undercarriage 1).” Pet. 12 (citing Ex. 1008, 3:39–61; Ex. 1002 ¶ 55) (emphasis omitted).

In referencing Figure 1a, reproduced *supra*, Ferneau A discloses that “[t]he cot is indicated generally at 100, and has a rectangular undercarriage 1 mounting pairs of caster wheels 2 at its opposite ends.” Ex. 1008, 3:42–44.

c. “a litter frame”

Petitioner submits that Ferneau A “teaches that [its] ambulance cot has a litter frame (cot frame 9).” Pet. 12 (citing Ex. 1008, 4:25–30; Figs 1a, 2a, 3; Ex. 1002 ¶ 56) (emphasis omitted).

In referencing Figure 1a, Ferneau A discloses,

It will be understood that the basic cot frame 9 may be provided with various adjustable features, such as folding side arms 28, a multiple-position backrest, indicated generally at 29, and an adjustable leg section for placing the patient in a shock position, indicated generally at 30, all of which are conventional features.

Ex. 1008, 3:42–44; *see also id.* at Fig. 2a (depicting an overhead view of the ambulance cot with cot frame 9).

d. “an X-frame support mechanism interconnecting said base frame and said litter frame and being configured to support said litter frame in one of a plurality of positions relative to said base frame”

Petitioner submits that Ferneau A teaches,

[A]n X-Frame support mechanism (defined by members 7, 8, 7a and 8a) interconnecting the base frame (undercarriage 1) and the litter frame (cot frame 9). The support mechanism interconnects the base frame and the cot frame and supports the litter frame in one of a plurality of positions: “the cot frame 9 . . . may be selectively secured in a plurality of elevational positions or collapsed against the undercarriage 1.”

Pet. 12–13 (quoting Ex. 1008, 5:45–58; citing Ex. 1002 ¶ 57).

As can be seen in Figure 1a, Ferneau A’s cot 100 has frame members 7, 8 that form an X-shaped frame between “base frame” 1 and “litter frame” 9. Ferneau A further discloses that its frame 9 “may be selectively secured in a plurality of elevational positions or collapsed against the undercarriage 1.” *See* Ex. 1008, 5:45–48.

e. “said support mechanism including at least one pair of frame members pivotally secured to each other proximate the mid-length thereof”

Petitioner submits that Ferneau A “teaches at least one pair of frame members (cross-members 7, 8, 7a and 8a) pivotally secured to each other by way of pivot rod 47 at approximately the mid-length thereof.” Pet. 13 (citing Ex. 1008, 3:49–60, 5:1–12, 5:35–67, Fig. 4; Ex. 1002 ¶ 58).

Ferneau A discloses cross members 7, 8 pivotally connected to one another at proximate their mid-length at pivot rod 47. *See* Ex. 1008, Fig. 1a.

f. “said at least one pair of frame members each having opposite ends respectively secured to one of said base frame and said litter frame”

Petitioner submits that Ferneau A “teaches that the at least one pair of frame members (crossmembers 7, 8, 7a and 8a) have opposite ends respectively secured to one of the base frame (undercarriage 1) and the litter

frame (cot frame 9).” Pet. 13 (citing Ex. 1008, 5:35–44, Fig. 4; Ex. 1002 ¶ 59) (emphasis omitted).

Ferneau A’s Figure 1a depicts cross members 7, 8 having opposite ends connected to “base frame” 1 and “litter frame” 9.

g. “at least one of said pair of frame members having a first mount oriented between said mid-length thereof and said litter frame”

Petitioner acknowledges that Ferneau A “does not disclose at least one of said pair of frame members having a first mount oriented between said mid-length thereof and said litter frame.” Pet. 13.

Petitioner turns to Ferneau B, submitting that Ferneau B “discloses a cart 10 having diagonal braces 46, 80 forming an X-frame support.” *Id.* at 14 (citing Ex. 1009, 2:65–3:1, 3:20–35, 3:54–65, Fig. 1) (emphasis omitted). In referencing Figure 1, Petitioner submits that Ferneau B discloses “lower crossbar 44 is fixed to wheel yokes 40.” Pet. 14 (citing Ex. 1009, 3:24, Fig. 1) (emphasis omitted). Petitioner further submits that Ferneau B’s “[r]ubber bumpers (i.e. mounts) 94 are mounted on the diagonal braces 80 and are configured to engage rubber bumpers 92 on the lower crossbar 44 . . . when the legs of the car are collapsed.” *Id.* (citing Ex. 1009, 4:15–18, Fig. 1; Ex. 1002 ¶ 61) (emphasis omitted).

Petitioner reasons that “[a]lthough the mounts in [Ferneau B] are not situated between the midlength of the X-frame members and the litter frame, it would have been obvious to a POSITA given the teaching of [Ferneau B] in view of [Ferneau A] to situate mounts between the mid-length of the X frame members and the litter frame of [Ferneau A].” Pet. 14. Petitioner further reasons that “[d]oing this would *prevent metal-to-metal* contact between the crossforming frame members 7 and 8 and the crossbars of the

undercarriage 1 of [Ferneau A].” *Id.* (emphasis replaced). Petitioner submits that “[i]t would have been well within the technical capabilities of a POSITA to situate the mounts in such location, would not have required undue experimentation, and would have had a high expectation of success.” *Id.* (citing Ex. 1002 ¶¶ 48–52, 62).

Petitioner further submits,

To the extent that the post in [Ferneau A] serves largely the same function as the mounts in [Ferneau B], a POSITA would nevertheless be motivated to use mounts such as those disclosed in [Ferneau B] with [Ferneau A] because doing so would remove from the base frame of [Ferneau A] a protruding knob, which could *ensnarl a pant leg or shoelace*. Using mounts rather than the post would also lessen the possibility that an operator’s finger or other extremity could be pinched between the post and the cot frame.

Pet. 14–15 (citing Ex. 1002 ¶ 62a) (emphasis added).

Patent Owner disputes Petitioner’s reasoning, submitting that Petitioner “failed to present any cogent reason why a POSA would have been motivated to combine Ferneau A and Ferneau B or why there would be a reasonable expectation of success.” Prelim. Resp. 35. Patent Owner explains,

Given that neither Ferneau A nor Ferneau B teaches a rubber bumper or a post oriented between the mid-length of the X-frame members and the litter frame, there is no cogent reason why a POSA would be motivated by these references to orient a mount between the mid-length of a frame member and the litter frame, as required by Claim 3[.]

Id. at 36.

Patent Owner provides an annotated version of Figure 1 of the ’884 patent (Prelim. Resp. 32), which we reproduce below:

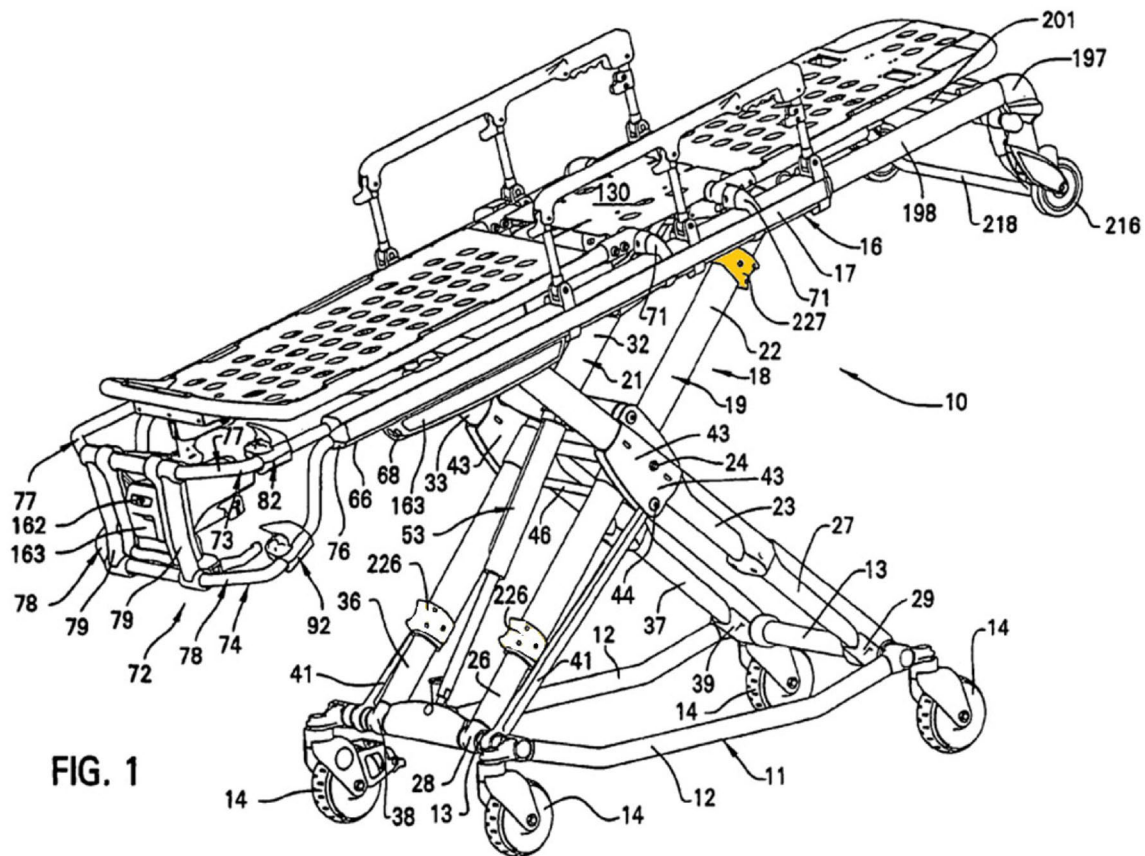
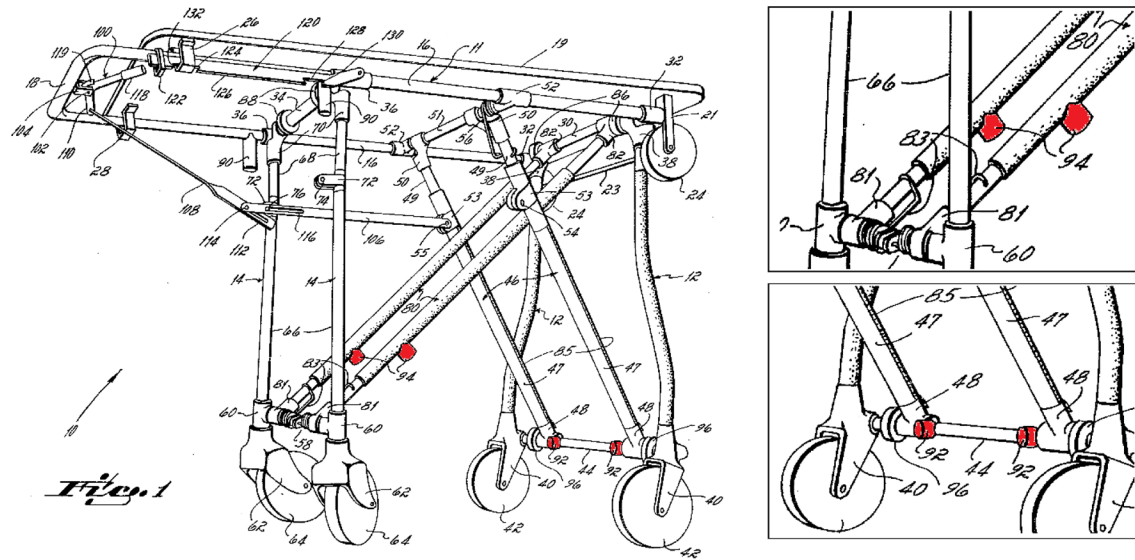


Figure 1 of the '884 patent, reproduced above with an annotation by Patent Owner, is an isometric view of an ambulance cot in the fully-raised position. Ex. 1001, 2:13–15. Element 227 is referred to as a mount (*see, e.g., id.* at 19:49–50), and Patent Owner highlights this mount in yellow to illustrate what it means for the claimed “mount” to be “oriented between said mid-length thereof and said litter frame,” as recited in claim 3. *See Prelim. Resp.* 32–33.

Patent Owner also provides an annotated version of Figure 1 of Ferneau B (*see Prelim. Resp.* 33), a copy of which we reproduce below:



(Ferneau B (Ex. 1009) at Fig. 1)

Ferneau B's Figure 1, reproduced above with annotations by Patent Owner, is a side view of Ferneau B's inventive cart. *See* Ex. 1009, 2:50–51. Patent Owner annotates Figure 1 by providing two closeup views to the right and highlighting, in red, elements 92 and 94—Petitioner's purported “mounts”—to illustrate that Ferneau B's mounts are not oriented as required by claim 3. *See* Prelim. Resp. 32–33. In particular, Patent Owner explains that Ferneau B's “pair of the rubber bumpers 92 that sit on the cross bar 44 between the wheels and another pair 94 is situated between the mid length of the braces 80 and the bottom of the cot . . . ***not between the mid-length of the X-frame and the litter frame*** as claimed.” *Id.*

We agree with Patent Owner that Petitioner has not shown, for purposes of institution, a sufficient reason a skilled artisan would have modified Ferneau A, as Petitioner has proposed, based on Ferneau B. Neither Ferneau A's posts nor Ferneau B's bumpers 92, 94 are “oriented between said mid-length thereof and said litter frame,” as required by claim 3. Thus, Petitioner has not shown that either Ferneau A or Ferneau B teaches or suggests the limitation at issue, and Petitioner's proposed

modification is not supported by reasoning beyond what appears to be a hindsight reconstruction of the claimed feature.

Petitioner's argument (Pet. 14–15) and Dr. Stevick's accompanying testimony (Ex. 1002 ¶ 62a) that Ferneau A's posts "could ensnare a pant leg or shoelace" and that using "mounts rather than the post would lessen the possibility that an operator's finger or other extremity could be pinched" does not fully address the claim limitation and fails to account for the fact that neither Ferneau A nor Ferneau B teaches a mount "oriented between said mid-length thereof and said litter frame," as required by claim 3. Ferneau B expressly taught locating the mounts between the mid-length of the X-frame and *base frame, not the litter frame*. See, e.g., Ex. 1009, Figs. 1–4. Petitioner's reasoning does not identify why a person of skill would have had reason to, or been motivated to, place mounts in a location not taught by Ferneau B.

Furthermore, Petitioner's reasoning presumes that Ferneau A's frame encounters metal-to-metal contact when the cot is collapsed, yet the record does not support such a finding. Indeed, if Ferneau A's mounts serve the same function as Ferneau B's rubber bumpers 92, 94, as Petitioner states (*see* Pet. 14), Ferneau A's frame would *not* encounter such metal-to-metal contact.

Petitioner acknowledges that Ferneau A's cot includes a post for supporting frame 9 when the cot is collapsed, providing an annotated version of Ferneau A's Figure 4. See Pet. 7. To illustrate, we reproduce Petitioner's annotated Figure 4, below:

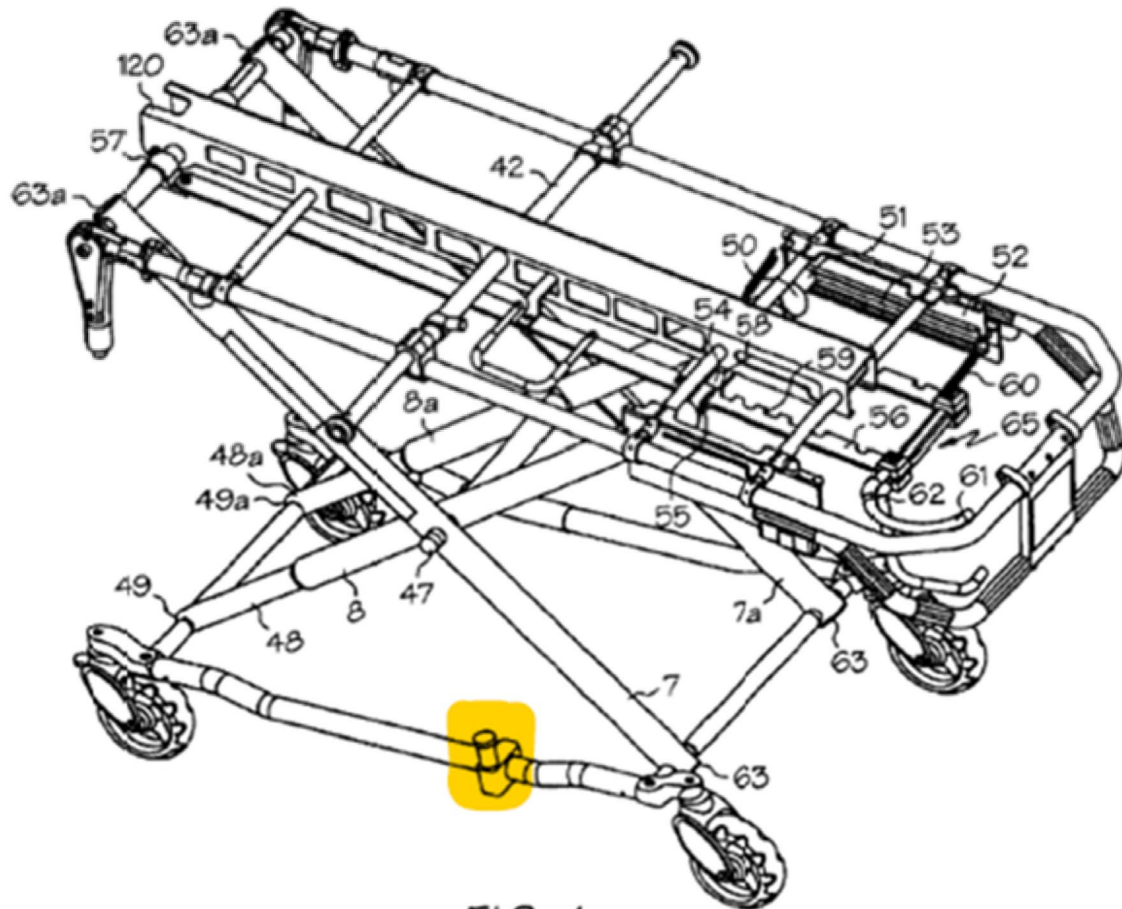


FIG. 4

Figure 4, reproduced above as annotated by Petitioner, “is an elevational perspective view of [a] cot structure embodiment of [Ferneau A’s] invention having a stretcher top.” Ex. 1008, 3:43–45. Petitioner highlights the “post” in yellow and submits that this is Ferneau A’s “post” for supporting cot frame 9 (*see* Pet. 7) and that this post “serves largely the same function as the mounts in” Ferneau B (*see id.* at 14).

Petitioner reasons that, given the teachings of Ferneau B, it would have been obvious to modify Ferneau A for the purpose of “prevent[ing] metal-to-metal contact.” *See* Pet. 14. Yet, Petitioner’s reasoning is premised on an unfounded assumption that Ferneau A’s cot, when collapsed, results in metal-to-metal contact. *See id.* At the same time, however,

Petitioner submits that Ferneau A's post, as highlighted in annotated Figure 4, reproduced above, "serves largely the same function" as the mounts in Ferneau B. *See id.* Despite serving the same function, Petitioner reasons that moving Ferneau A's mounts to meet the claim language would somehow limit metal-to-metal contact. *See id.* If Ferneau A's mounts "serve the same purpose" as Ferneau B's rubber bumpers 92, 94, however, we understand that there is no metal-to-metal contact, as we understand the purpose of Ferneau B's rubber bumpers 92, 94 is to prevent metal-to-metal contact of the legs when the cot is collapsed. *See* Ex. 1009, 4:15–18; *see also id.* at Fig. 1 (depicting the location of rubber bumpers 92, 94 to prevent Ferneau B's "cross members" from contacting when collapsed).

For the foregoing reasons, Petitioner has failed to show, with reasonable likelihood, that Ferneau A in view of Ferneau B satisfies the claim requirement that "at least one of said pair of frame members hav[e] a first mount oriented between said mid-length thereof and said litter frame."

h. Summary of Independent Claim 3

Petitioner has failed to show a reasonable likelihood that claim 3 is unpatentable over Ferneau A in view of Ferneau B.

4. Dependent Claim 4

Claim 4 depends from claim 3 (Ex. 1001, 22:45–48) and Petitioner's challenge of claim 4 relies on the same deficient reasoning discussed above in connection with claim 3 (*see* Pet. 16). Accordingly, Petitioner has also failed to show a reasonable likelihood that claim 4 is unpatentable over Ferneau A in view of Ferneau B.

5. *Summary of Ground 1*

Petitioner has failed to show a reasonable likelihood that either claim 3 or claim 4 would have been obvious over Ferneau A in view of Ferneau B.

G. *Ground 2: Alleged Obviousness over Ferneau A, Ferneau B, and Bourgraf*

Petitioner submits that claims 3 and 4 would have been obvious over Ferneau A in view of Ferneau B and Bourgraf. Pet. 17.

1. *Bourgraf (Ex. 1010)*

Bourgraf is a U.S. Patent titled, “Ambulance Cot Construction.” Ex. 1010, code (54). We reproduce Figure 1 of Bourgraf, below:

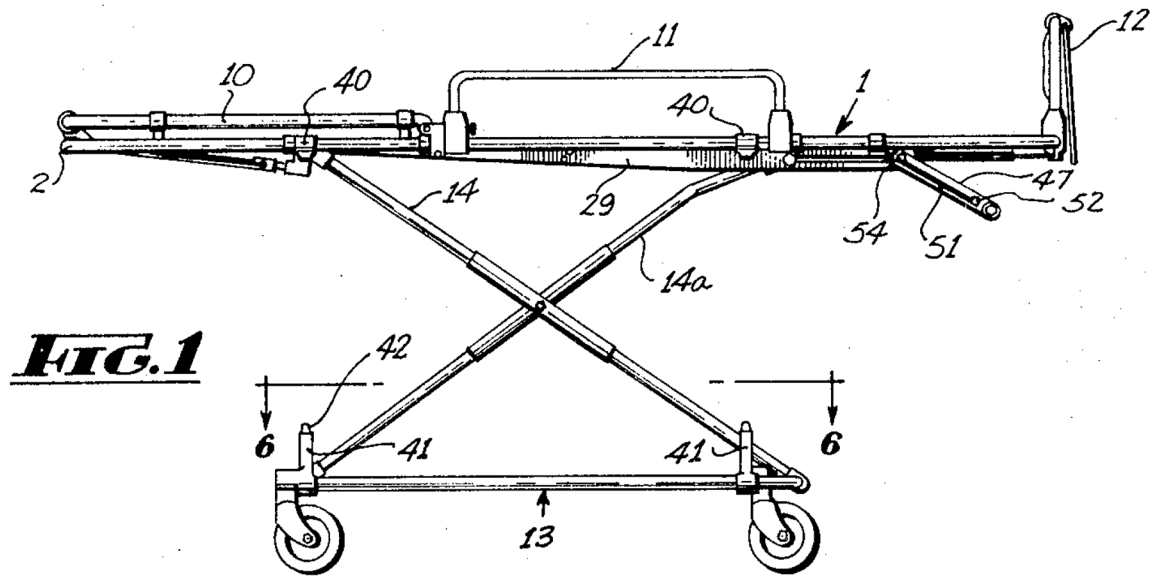


Figure 1, reproduced above, is a side elevational view of a multiple-position elevating cot according to Bourgraf's invention. See Ex. 1010, 2:56–58. In particular, Figure 1 depicts cot frame 1 having head end 2 and foot end 12, with the frame further having cross braces 4, 5, 6, 7, 8, and ribs 9 for

supporting a mattress (shown in Figure 2, which depicts a plan view of the cot). *See id.* at 2:59, 3:9–14. Cot frame 1 is mounted on undercarriage 13, which comprises a generally rectangular frame. *See id.* at 3:18–19, Fig. 2. Figure 1 further shows sockets 40 that are mounted on opposite sides of the cot frame. *See id.* at 4:19–20. When the cot frame is fully lowered, as shown in Figure 4, the sockets are seated with corner posts 41, which project upwardly from rectangular frame 13 of the undercarriage. *See id.* at 4:18–24.

2. *Independent Claim 3*

As with Ground 1, we address each of the limitations of claim 3 as presented by Petitioner. *See Pet.* 12–16.

a. *“An ambulance cot”*

Petitioner submits that Ferneau A discloses this element, referencing its challenge under Ground 1. *See Pet.* 17. We make no determination whether the preamble is limiting.

b. *“a base frame”*

Petitioner submits that Ferneau A discloses this element, referencing its challenge under Ground 1. *See Pet.* 17.

c. *“a litter frame”*

Petitioner submits that Ferneau A discloses this element, referencing its challenge under Ground 1. *See Pet.* 17.

- d. “an X-frame support mechanism interconnecting said base frame and said litter frame and being configured to support said litter frame in one of a plurality of positions relative to said base frame”*

Petitioner submits that Ferneau A discloses this element, referencing its challenge under Ground 1. *See* Pet. 17.

- e. “said support mechanism including at least one pair of frame members pivotally secured to each other proximate the mid-length thereof”*

Petitioner submits that Ferneau A discloses this element, referencing its challenge under Ground 1. *See* Pet. 18.

- f. “said at least one pair of frame members each having opposite ends respectively secured to one of said base frame and said litter frame”*

Petitioner submits that Ferneau A discloses this element, referencing its challenge under Ground 1. *See* Pet. 18.

- g. “at least one of said pair of frame members having a first mount oriented between said mid-length thereof and said litter frame”*

As with Ground 1, Petitioner acknowledges that Ferneau A “does not disclose at least one of said pair of frame members having a first mount oriented between said mid-length thereof and said litter frame.” Pet. 18.

Petitioner turns to Bourgraf, submitting that Bourgraf’s “corner posts 41 engage the sockets 40 mounted on the cot frame.” *See* Pet. 18–19.

Petitioner further submits that

Bourgraf discloses an undercarriage 13 comprising side and end frame members 16, 17, 18 and 19 interconnected by fittings 20, 21, 22 and 23, each fitting supporting a corner post 41. The corner posts 41 support the cot frame 1 through sockets 40

when the cot frame 1 is lowered toward undercarriage 13.
Corner posts 41 correspond to mounts 226 and 227 in the '884 Patent.

Id. at 19 (citing Ex. 1010, 3:20–25, 4:20–24; Ex. 1002 ¶¶ 41, 77) (emphasis omitted); *see also* Ex. 1010, Fig. 9 (depicting a sectional view of the cot including elements 15, 16, 17, 19, 20a, 21a, 22a, and 23a).

Petitioner acknowledges that “the posts in [Ferneau A] and Bourgraf are not situated between the mid-length of the X-frame members and the litter frame,” but nevertheless reasons,

[I]t would have been obvious to a POSITA given the teaching of [Ferneau A] in view of Bourgraf and [Ferneau B] to situate mounts between the mid-length of the X frame members and the litter frame of [Ferneau A]. Doing this would *prevent metal-to-metal contact between the cross-forming frame members 7 and 8 and the crossbars of the undercarriage 1* of [Ferneau A]. It would have been well within the technical capabilities of a POSITA to situate the mounts in such location, would not have required undue experimentation, and would have had a high expectation of success.

Id. (citing Ex. 1002 ¶¶ 48–52, 78) (emphasis replaced).

Patent Owner argues that nothing in Ferneau B or Bourgraf would have led a skilled artisan to modify Ferneau A as Petitioner proposes. *See* Prelim. Resp. 38–46.

We agree with Patent Owner that Petitioner has not shown, for purposes of institution, a sufficient reason a skilled artisan would have modified Ferneau A, as Petitioner has proposed, based on Ferneau B and Bourgraf.

The claim requires “a first mount oriented between said mid-length thereof and said litter frame.” Ex. 1001, 22:33–35. Yet, neither Ferneau A, Ferneau B, nor Bourgraf teaches this structure.

Notwithstanding the failure of the cited art to teach the recited structure, Petitioner reasons that it would have been obvious “to situate mounts between the mid-length of the X frame members and the litter frame” of Ferneau A, as “[d]oing this would prevent metal-to-metal contact between the cross-forming frame members 7 and 8 and the crossbars of” Ferneau A’s undercarriage 1. Pet. 19. Dr. Stevick testifies that the proposed modification would prevent metal-to-metal scratching and “guard against pinching an operator’s finger during a collapsing operation.” Ex. 1002 ¶ 49. Dr. Stevick further testifies that the modification would “soften the impact when legs or frame members come into contact with each other.” *Id.* ¶ 50.

Petitioner’s reasoning presumes, without any factual support, that Ferneau A’s cot exhibits metal-to-metal contact or otherwise pinches an operator’s finger when the cot is collapsed. Indeed, the record supports otherwise. Ferneau A’s cot includes posts (shown below) that would presumably prevent contact between Ferneau A’s X-frame and undercarriage during collapse. *See* Pet. 14 (explaining the same). To illustrate, we again reproduce Petitioner’s own annotated version of Ferneau A’s Figure 4 (Pet. 7), below:

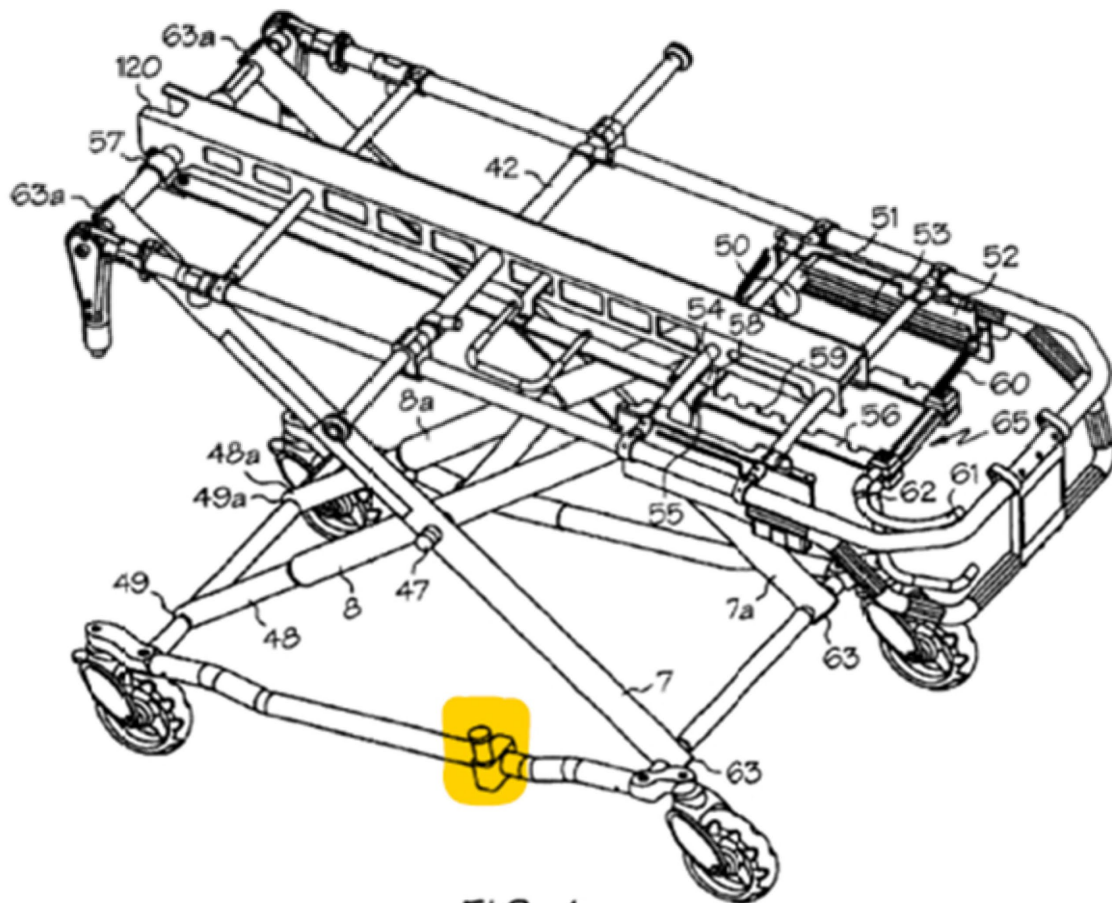


FIG. 4

Figure 4, reproduced above, “is an elevational perspective view of [a] cot structure embodiment of [Ferneau A’s] invention having a stretcher top.” Ex. 1008, 3:43–45. Petitioner highlights the “post” in yellow and submits that this is Ferneau A’s post for supporting cot frame 9 (*see* Pet. 7) and that this post “serves largely the same function as the mounts in” Ferneau B (*see* Pet. 14).

As explained above under Ground 1, Ferneau B’s “mounts” 92, 94 are rubber bumpers that serve to prevent the type of metal-to-metal contact that might otherwise occur when Ferneau B’s cot is collapsed. *See, e.g.*, Ex. 1009, 4:15–18; *see also* Pet. 8 (acknowledging the same). Just like Ferneau B, Ferneau A’s posts act to prevent that type of metal-to-metal

contact when its cot is collapsed. *See, e.g.*, Pet. 14 (acknowledging that Ferneau A’s posts “serve[] largely the same function as the [rubber] mounts in [Ferneau B]”). Furthermore, Bourgraf’s posts 41 are located on the undercarriage, at frame 13, not at the claimed location. *See, e.g.*, Ex. 1010, Fig. 1, 4:21–25. Accordingly, we see no reason why a skilled artisan would have modified Ferneau A to include the recited mounts for preventing the same type of metal-to-metal contact that Ferneau A’s posts already prevent.

For the foregoing reasons, Petitioner has failed to show that Ferneau A in view of Bourgraf and Ferneau B teach or suggest “at least one of said pair of frame members having a first mount oriented between said mid-length thereof and said litter frame,” as required by claim 3.

h. Summary of Independent Claim 3

Petitioner has failed to show a reasonable likelihood that claim 3 is unpatentable over Ferneau A in view of Ferneau B and Bourgraf.

3. Dependent Claim 4

Claim 4 depends from claim 3 (Ex. 1001, 22:45–48) and Petitioner’s challenge of claim 4 relies on the same deficient reasoning discussed above in connection with claim 3 (*see* Pet. 20). Accordingly, Petitioner has also failed to show a reasonable likelihood that claim 4 is unpatentable over Ferneau A in view of Ferneau B and Bourgraf.

4. Summary of Ground 2

Petitioner has failed to show a reasonable likelihood that the subject matter of either claim 3 or claim 4 would have been obvious over Ferneau A in view of Ferneau B and Bourgraf.

IV. CONCLUSION

We deny the Petition and do not institute *inter partes* review of the Challenged Claims.

V. ORDER

For the reasons above, it is:

ORDERED that the Petition is *denied* as to the grounds and all Challenged Claims of the '884 patent.

IPR2024-00042
Patent RE44,884 E

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