

NOTE: This disposition is nonprecedential.

**United States Court of Appeals
for the Federal Circuit**

PAUL HARTMANN AG,
Appellant

v.

ATTENDS HEALTHCARE PRODUCTS, INC.,
Appellee

2022-1724, 2022-1725, 2022-1726, 2022-1727

Appeals from the United States Patent and Trademark
Office, Patent Trial and Appeal Board in Nos. IPR2020-
01477, IPR2020-01478, IPR2020-01479, IPR2020-01480.

Decided: March 4, 2024

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pellant. Also represented by JOSHUA GOLDBERG; BRANDON
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Before LOURIE, STOLL, and CUNNINGHAM, *Circuit Judges*.

STOLL, *Circuit Judge*.

Paul Hartmann AG appeals the final written decisions of the Patent Trial and Appeal Board in four inter partes reviews initiated by Attends Healthcare Products, Inc. The Board determined that all claims of Hartmann’s U.S. Patent Nos. 8,152,788, 8,784,398, 8,771,249, and 8,708,990 were unpatentable as obvious. Because the Board based its decision on unsupported assumptions, we vacate the Board’s determinations and remand for further proceedings consistent with this opinion.

BACKGROUND

Hartmann’s ’788, ’398, ’249, and ’990 patents (collectively, the Beckert Patents) relate to adult incontinence diapers.¹ The incontinence diapers include a main part or chassis, front side parts or wings, and rear side parts. ’249 patent, col. 1 ll. 13–35. The main part includes a liquid impermeable backsheet that forms the outer face of the main part and is directed away from the user’s body. *Id.* col. 1 ll. 13–22, col. 12 ll. 22–26. To close the incontinence diaper, the rear side parts are “wrapped onto the abdomen side of the user” and connected either to the backsheet or the outer face of the front side parts. *Id.* col. 1 ll. 35–40. The patents state that incontinence diapers in the prior art use mechanical closure aids consisting of hook-and-loop fasteners in which the hooks are present on the rear side parts and a corresponding loop component is present on the backsheet, or front of the diaper. *Id.* col. 1 ll. 42–65. This corresponding loop component is “a considerable cost factor” and may not be comfortable to the user. *Id.* col. 1 l. 59–col. 2 l. 3.

¹ The patents share a specification and thus, we cite to the ’249 patent for simplicity.

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The Beckert patents purport to have an improved closure system in which the “retaining forces between the mechanical closure means and the outer face of the main part [is] lower than the retaining forces between the mechanical closure means and the outer face of the [front] side parts.” *Id.* col. 2 ll. 7–16. Further, the “materials forming the outer face of the main part and the outer face of the side parts in the front area are inventively chosen so that, in addition to their primary function, they can also serve as the engagement surface for the closure means.” *Id.* col. 2 ll. 17–21.

Claims 1, 3 and 4 of the '249 patent are representative and are reproduced below, along with claim 2.

1. An absorbent incontinence diaper for an adult user, comprising:

a chassis having an inner face which, when in use, is directed toward a user body and an outer face which, when in use, is directed away from the user body, said chassis having an absorbent body and a backsheet on a side of said absorbent body which, when in use, is directed away from the user body, said absorbent body having a smaller width than said backsheet, said chassis also having a rear area, a front area, and a crotch area lying between said rear area and said front area, said chassis further defining first and second side edges;

a first ear attached as a separate component to said first side edge in said front area;

a second ear attached as a separate component to said second edge in said front area;

a third ear attached as a separate component to said first side edge in said rear area;

a fourth ear attached as a separate component to said second side edge in said rear area;

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said third and fourth ears having a closure component including mechanical closure aids which, when in use, *hold the diaper on the user body* when said closure component is selectively fastened to either said outer face of said chassis or to said outer face of said first and second ears;

wherein *retaining forces between said closure component and said outer face of said chassis are lower than retaining forces between said closure component and said outer face of said first and second ears.*

2. The absorbent incontinence diaper for an adult user of claim 1, wherein said retaining forces are determined as over-abdomen retaining forces.

3. The absorbent incontinence diaper for an adult user of claim 2, wherein said *retaining forces, determined as over-abdomen retaining forces between said closure component and said outer face of said chassis, are 57-20 N/25 mm.*

4. The absorbent incontinence diaper for an adult user of claim 3, wherein said *retaining forces, determined as over-abdomen retaining forces between said closure component and said outer face of said first and second ears, are 90-58 N/25 mm.*

Id. col. 15 l. 59–col. 16 l. 34 (emphases added to highlight disputed limitations).

Attends petitioned for IPRs of the Beckert Patents, challenging all claims of each patent. The Board found claims 1–54 of the '249 patent, claims 1–30 of the '398 patent, claims 1–21 of the '990 patent, and claims 1–21 of the '788 patent unpatentable as obvious over prior art combinations including U.S. Patent Publication No. 2005/0256496 (Benning) and U.S. Patent Publication

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No. 2003/0220626 (Karami '626).² Benning, titled “Hygienic article for incontinence,” discloses an incontinence article with a main body portion with front and rear side flaps or wings. Benning [0002], [0003], [0053]–[0055]. Karami '626, titled “Loopless absorbent article,” discloses “an absorbent article having a fastener element which does not require a special loop-providing landing zone,” and instead, the hook-type fastener elements “engage directly with any portion of the nonwoven surface constituting the . . . backsheet 32 or wings 40.” Karami '626 [0039]–[0041], [0002].

Hartmann timely appealed all four Board decisions. We have jurisdiction under 28 U.S.C. § 1295(a)(4)(A).

DISCUSSION

The Board found that a person of ordinary skill in the art would have been motivated to modify Benning’s diaper by replacing the fastener elements and material for the backsheet of Benning’s diaper with the fastener elements and backsheet of Karami '626’s diaper. Hartmann does not dispute this finding of motivation to combine on appeal. Instead, Hartmann argues that the Board erred in finding that Benning as so modified by Karami '626 discloses three particular limitations: (1) “hold the diaper on the user body”; (2) “retaining forces between said closure component and said outer face of said chassis are lower than retaining forces between said closure component and said outer face of said first and second ears” (which we will refer to as the “relative force limitation”); and (3) “retaining forces, determined as over-abdomen retaining forces between said closure component and said outer face of said chassis, are 57-20 N/25 mm” and “retaining forces, determined as over-

² The Board’s decisions as to the relevant claim limitations are similar and thus, we cite to the decision for the '249 patent for simplicity.

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abdomen retaining forces between said closure component and said outer face of said first and second ears, are 90-58 N/25 mm” (which we will refer to as the “range limitations”). The relative force limitation is recited in each of the claims at issue on appeal. The parties also dispute whether the Board relied on inherency or obviousness in finding that the prior art discloses these limitations.

I

Turning first to the relative force limitation, Hartmann argues that the Board erred by relying on obviousness instead of inherency to demonstrate that the proposed combination teaches the limitation. Attends responds that the Board did, in fact, rely on inherency to conclude that the proposed combination meets this claim limitation.

“[I]nherency may supply a missing claim limitation in an obviousness analysis,” but “the use of inherency . . . must be carefully circumscribed in the context of obviousness.” *PAR Pharm., Inc. v. TWI Pharm., Inc.*, 773 F.3d 1186, 1194–95 (Fed. Cir. 2014). A claim limitation is inherent “only when the limitation at issue is the ‘natural result’ of the combination of prior art elements.” *Id.* (quoting *In re Oelrich*, 666 F.2d 578, 581 (C.C.P.A. 1981)). In other words, “the mere fact that a certain thing may result from a given set of circumstances is not sufficient” to find a limitation as inherent. *Oelrich*, 666 F.2d at 581 (citation omitted). Instead, the “limitation at issue necessarily must be present” in the combination. *PAR Pharm.*, 773 F.3d at 1195–96.

Obviousness is a legal determination based on underlying factual findings. See *Intelligent Bio-Sys., Inc. v. Illumina Cambridge Ltd.*, 821 F.3d 1359, 1366 (Fed. Cir. 2016). We review the Board’s ultimate obviousness determination de novo and the underlying factual findings for substantial evidence. *Id.* Whether a claimed feature is inherent in the combination of elements disclosed by the prior art is a question of fact, reviewed for substantial

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evidence. *See Hospira, Inc. v. Fresenius Kabi USA, LLC*, 946 F.3d 1322, 1329 (Fed. Cir. 2020). Substantial evidence is “such relevant evidence as a reasonable mind might accept as adequate to support a conclusion.” *In re Mouttet*, 686 F.3d 1322, 1331 (Fed. Cir. 2012).

Whether the Board relied on inherency or obviousness, we agree with Hartmann that the Board erred in finding that Benning as modified by Karami ’626 would meet the relative force claim limitation. The Board acknowledged that Karami ’626 discloses that parameters such as the number of fibers and the extent to which they are bonded together in the nonwoven as well as the pore size in the nonwoven can affect the shear and peel strength and in turn, affect the retaining forces. *Attends Healthcare Prods, Inc. v. Paul Hartmann AG*, IPR2020-01479, 2022 WL 557871, at *22 (P.T.A.B. Feb. 23, 2022) (citing Karami ’626 [0068], [0069]) (*’249 IPR Decision*). And the Board correctly noted that Benning as modified by Karami ’626 “would have a nonwoven for its . . . backsheet that is of relatively lower basis weight than the nonwoven for its . . . wings,” i.e., the number of fibers would be lower for the backsheet compared to the wings. *Id.* The Board then erred, however, in relying on a hypothetical rationale that the combination would have the differing retaining forces “[i]f the extent to which the fibers are bonded together and pore size [were] the same between the two nonwoven materials” of the backsheet and wings. *Id.* The Board did not explain or otherwise identify any support to show why the nonwovens in the proposed combination would necessarily have these characteristics and would thus, necessarily provide the required difference in retaining forces. The Board’s assumption regarding the characteristics of the nonwovens does not satisfy the high “necessarily so” standard required for inherency. *See Persion Pharm. LLC v. Alvoigen Malta Operations Ltd*, 945 F.3d 1184, 1191 (Fed. Cir. 2019) (“Inherency . . . is a high standard.” (citation omitted)).

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The Board’s finding that “to the extent that the proposed combination . . . [does] not necessarily provide the recited difference in retaining forces, . . . such a difference is, at least, suggested [by] Karami ’626” is also not supported by substantial evidence. *’249 IPR Decision*, 2022 WL 557871, at *22. Specifically, the Board’s finding is again based on the assumption that the “two nonwovens . . . otherwise have the same extent of bonding and pore size,” but the Board did not provide any reason why a person of ordinary skill would have chosen nonwovens with these characteristics. *Id.*

During oral argument, Attends argued that the Board found that it would have been obvious to not just replace the fasteners and backsheet of Benning with those in Karami ’626, but also to modify the material in Benning’s wings to have the same nonwoven characteristics as the material in Karami ’626. Oral Arg. at 13:58–15:40, https://oralarguments.cafc.uscourts.gov/default.aspx?fl=22-1724_12052023.mp3. While Attends’s expert opined in paragraph 115 of his declaration that “a [person of skill in the art] would have readily [modified Benning’s wings and] chosen other nonwoven characteristics (e.g., bonding area, fiber size, and intersticity size)” to match the nonwoven characteristics of Karami’s 626’s backsheet, we do not read the Board’s opinion as adopting this proposed further modification of Benning. Jezzi Decl. at ¶115. To the contrary, the Board explained that “the proposed combination [of Benning in view of Karami ’626] does not require modifying the relatively heavier nonwoven material that Benning already uses for its material sections or wings.” *’249 IPR Decision*, 2022 WL 557871, at *21. While the Board cited paragraph 115 of Attends’s expert’s declaration, the Board did so in addressing a different claim limitation. Moreover, the Board’s citation of a page and a half long paragraph containing numerous factual assertions does not mean that the Board adopted each of the expert’s assertions in that paragraph. This is especially true where the sentence the

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Board cited the expert opinion for merely states “[b]ased on the full record, we determine that Benning’s diaper modified with Karami ’626’s hook-type fastener would have functioned to ‘when in use, hold the diaper on the user body.’” *Id.* at *22.

As such, we do not find substantial evidence support for the Board’s findings regarding the relative force limitation. Hartmann also argues that the particularly recited combination of Benning as modified by Karami also fails to disclose the “hold the diaper on the user body” limitation for the same reasons that the combination does not disclose the relative force limitation. We need not reach this issue, however, given our holding regarding the relative force limitation, which is recited in each of the claims at issue on appeal.

II

Turning to the range limitations, Hartmann again argues that the Board erred by relying on obviousness rather than inherency and that the Board’s findings are based on hindsight. We hold that the Board erred in finding that Benning as modified by Karami ’626 would provide retaining forces within the claimed range limitations.

The specification of Hartmann’s patents-at-issue in this appeal describes an embodiment with particular fasteners and nonwovens for the backsheet and wings. ’249 patent, col. 14 l. 47–col. 15 l. 57. The specification lists the retaining forces resulting from this embodiment and these retaining forces fall within the claimed range limitations. *Id.* The Board’s obviousness analysis primarily depends on its finding that Hartmann “does not dispute . . . that the fasteners and nonwovens used in the [proposed combination involving Benning and Karami ’626] match those described in the Specification [of the patents-in-suit]” and thus, the proposed combination would provide retaining forces that meet the claimed range limitations. ’249 *IPR Decision*, 2022 WL 557871, at *24. The

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Board points to Hartmann's Response and Sur-reply as evidence of Hartmann's alleged admission, but we see no such admission by Hartmann in the cited briefing. Without such an admission or any other record evidence to support the Board's assertion (i.e., that the fastener and nonwoven materials of Benning in view of Karami '626 match those described in the specification of the patent-in-suit), the Board's analysis of whether the prior art combination discloses the claimed range limitations is unsupported and cannot stand.

CONCLUSION

For the foregoing reasons, we vacate and remand the decision of the Board.

VACATED AND REMANDED

COSTS

Costs to appellants.