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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte WILLIAM H. MACLAY, KEVAN WITHERS,
PETER J. ZARKOWSKYJ, CHARLES C. JENSEN,
MARK E. WENTLAND, and ALEXANDRU IASZFALVI

Appeal 2019-003179
Application 14/835,850
Technology Center 3600

Before LINDA E. HORNER, MICHAEL J. FITZPATRICK, and
LISA M. GUIJT, *Administrative Patent Judges*.

HORNER, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

Pursuant to 35 U.S.C. § 134(a), Appellant, The Boeing Company,¹ appeals from the Examiner's decision to reject claims 1–20. We have jurisdiction under 35 U.S.C. § 6(b).

The Examiner rejected the claims on appeal as indefinite, anticipated by the prior art, and unpatentable over various combinations of the prior art.

¹ We use the word Appellant to refer to “applicant” as defined in 37 C.F.R. § 1.42(a). Appellant identifies itself as the sole real party in interest. Appeal Br. 5.

Appellant argues that the claims are clear and neither anticipated by, nor unpatentable over, the prior art. For the reasons explained below, we agree with Appellant that the claims, while broad, are not indefinite. We do not agree, however, with Appellant as to the assertions of error in the prior art rejections. Thus, we affirm.

CLAIMED SUBJECT MATTER

The claims are directed to light-limiting header assemblies configured to be secured to curtains within an interior cabin of an aircraft. Spec. ¶ 2. Claims 1, 12, and 20 are independent. Claim 1 is illustrative of the subject matter on appeal and is reproduced below.

1. A header assembly configured to be secured between an inboard structure and an outboard structure within an internal cabin of an aircraft, the header assembly comprising:

a main body including a first panel connected to an opposed second panel by a base panel,

wherein the main body is configured to limit light from passing therethrough; and

at least three separate and distinct anchoring members that are configured to securely connect the main body to at least three separate and distinct reciprocal structures of the inboard and outboard structures.

Appeal Br. 32 (Claims Appendix).

REFERENCES

The prior art relied upon by the Examiner is:

Name	Reference	Date
Bright	US 2,710,731	June 14, 1955
Breuer ²	WO 2009/036738 A2	Mar. 26, 2009
Roach	US 2012/0043028 A1	Feb. 23, 2012
Ulbrich-Gasparevic	US 2012/0273613 A1	Nov. 1, 2012

REJECTIONS

The following rejections are on appeal:

1. Claims 10, 17, and 20 are rejected under 35 U.S.C. § 112(b) as being indefinite.
2. Claims 1–6, 9, 12–16, and 19 are rejected under 35 U.S.C. §§ 102(a)(1) and 102(a)(2) as anticipated by Breuer.
3. Claim 7 is rejected under 35 U.S.C. § 103 as unpatentable over Breuer and Roach.
4. Claim 7 is rejected under 35 U.S.C. § 103 as unpatentable over Breuer and Bright.
5. Claim 8 is rejected under 35 U.S.C. § 103 as unpatentable over Breuer.
6. Claims 10 and 17 are rejected under 35 U.S.C. § 103 as unpatentable over Breuer and Bright.
7. Claims 11 and 18 are rejected under 35 U.S.C. § 103 as unpatentable over Breuer and Ulbrich-Gasparevic.
8. Claim 20 is rejected under 35 U.S.C. § 103 as unpatentable over Breuer, Bright, and Ulbrich-Gasparevic.

² Although the first named inventor is Gerold Hupperich, the Examiner and Appellant refer to this reference using the second named inventor “Breuer.”

OPINION

Rejection of claims 10, 17, and 20 as indefinite

Claim 10 recites that the inboard reciprocal structure is a connection fastener, the inboard support fitting is a grommet having a bracket that defines an internal channel that is configured to receive and retain a bayonet of the connection fastener, and each of the first and second outboard support fittings of the anchoring members is configured to latchably engage or be latchably engaged to a structure. Appeal Br. 33 (Claims Appendix). Claims 17 and 20 contain similar language. *Id.* at 35, 36.

The Examiner rejected claims 10, 17, and 20 as indefinite because the Examiner found it unclear whether the recitation of “a structure” refers to the previously recited “reciprocal structures” or “the inboard structure” or a different structure. Non-Final Act. 4, 21–22. We disagree with the Examiner’s determination that the claim language is unclear.

The recitation of “a structure” in claims 10, 17, and 20 is so broad as to encompass the recited reciprocal structures and different structures. The fact that the claim does not further limit the scope of “a structure” to require it to include or exclude particular structures is a matter of breadth, not indefiniteness. *See In re Miller*, 441 F.2d 689, 693 (CCPA 1971); *In re Gardner*, 427 F.2d 786, 788 (CCPA 1970).

Appellant argues that “the claims recite ‘a structure,’ which differs from the ‘reciprocal structures,’ and ‘an inboard structure.’” Appeal Br. 11. Appellant’s argument, which seeks an interpretation of “a structure” that excludes the “reciprocal structures,” is contrary to the description in Appellant’s Specification that the outboard support fittings 166 and 168 latchably engage the reciprocal structures, i.e., latching protuberances 224

and 226 of outboard structure 202. Spec. ¶ 56. We decline to adopt an interpretation of “a structure” that does not encompass, and is incompatible with, the embodiment described in the Specification. *See In re Smith Int’l, Inc.*, 871 F.3d 1375, 1383–84 (Fed. Cir. 2017) (“The correct inquiry in giving a claim term its broadest reasonable interpretation in light of the specification . . . is an interpretation that corresponds with what and how the inventor describes his invention in the specification, *i.e.*, an interpretation that is consistent with the specification.”) (citation and internal quotation marks and omitted).

For these reasons, we find that the claim language of “a structure,” though broad, is not indefinite. Thus, we do not sustain the rejection of claims 10, 17, and 20 under 35 U.S.C. § 112(b).

Rejection of claims 1–6, 9, 12–16, and 19 as anticipated by Breuer

Independent claim 1

The Examiner found that Breuer discloses a header assembly comprising a main body and “at least three separate and distinct anchoring members that are configured to securely connect the main body to at least three separate and distinct reciprocal structures of the inboard and outboard structures.” Non-Final Act. 5. Specifically, the Examiner found that the three anchoring members consist of two mounting elements 25 at mounting point 2 and threaded sleeve 28 at mounting point 3. *Id.* at 5–6. The Examiner found that the two mounting elements 25 are “separate and distinct” because they are provided on each side of the header. *Id.* Alternatively, the Examiner found that Breuer discloses five anchoring members, including the three anchoring members discussed above and connectors 19 and 20. *Id.* at 7.

Appellant argues that the Examiner erred in finding that Breuer discloses “at least three separate and distinct anchoring members that are configured to securely connect the main body to at least three separate and distinct reciprocal structures of the inboard and outboard structures” because Breuer discloses only two mounting points 2, 3. Appeal Br. 13. As to the Examiner’s finding that mounting elements 25 constitute two of the claimed anchoring members, Appellant argues that mounting elements 25 are merely fasteners for mounting point 2. *Id.* Appellant argues that “[e]ven if multiple fasteners 24 or 25 are used with respect to each of the two mounting points 2 and 3, there are still only two mounting points 2 and 3, each of which may include multiple fasteners 24 or 25 connected together by a common structure (namely, the mounting points 2 or 3).” *Id.* at 14.

The Examiner’s finding of anticipation of the claimed subject matter is supported by Breuer. Appellant’s argument turns on the meaning of “three separate and distinct anchoring members.” Appellant argues, in essence, that mounting elements or fasteners 25 are not “separate and distinct anchoring members.” Appellant fails to provide in its brief a proposed interpretation of this claim language that would exclude fasteners from being “anchoring members” or that would explain why Breuer’s fasteners 25, which are disposed on opposite sides of element 1, are not separate and distinct.

We agree with the Examiner’s claim interpretation that, under the broadest reasonable interpretation, an “anchoring member” encompasses a fastener. Non-Final Act. 22; Ans. 12. The Specification describes that “[t]he anchoring members and reciprocal structures cooperate to secure the header assembly to the inboard and outboard structures.” Spec. ¶ 8.

Although the Specification describes examples of specific support fittings that may be used as anchoring members, independent claim 1 is not limited to any particular anchoring member structure. Spec. ¶¶ 14, 50, 52.

We further agree with the Examiner that Breuer's mounting elements 25 are "separate and distinct." As noted by the Examiner (Ans. 10), Breuer describes that a mounting element 25 is provided on both sides of lightweight element 1, i.e., on the side of shell 6 and on the side of shell 5. Breuer 12, second paragraph. The Examiner further found that each mounting element 25 has a plate-shaped section 30 for fixing against the ceiling, and these parts of the ceiling are separate and distinct because they lie on opposite sides of the header. Non-Final Act. 6. We find no error in the Examiner's finding that i.e., mounting elements 25 are "separate" and "distinct." Ans. 10, 13–14 (Examiner finding that "distinct," when read in light of Appellant's Specification, does not require the anchoring structures to be different types of structures).

We further agree with the Examiner's finding that the three anchoring members, i.e., mounting elements 25 and threaded sleeve 28, are configured to securely connect the main body to three separate and distinct reciprocal structures. *Id.* at 11, 15; Non-Final Act. 6. Specifically, Breuer discloses that each mounting element 25 has a plate-shaped section for fixing against the ceiling of the aircraft, and Breuer discloses that threaded sleeve 28, which is fixed to shells 5, 6, is used to attach element 1 to the aircraft. Breuer 12, first and second paragraphs, Figs. 6, 8.

The Examiner further observed in the Answer that Appellant did not specifically address the Examiner's alternative finding that Breuer's anchoring members include connectors 19 and 20. Ans. 16. Indeed,

Appellant did not address these alternative findings in the Appeal Brief. And despite the Examiner's highlighting of this omission in the Answer, Appellant still failed to address these alternative findings in the Reply Brief. Thus, Appellant has not identified error in the Examiner's finding that Breuer's connectors 19 and 20 serve as additional separate and distinct anchoring members.

For these reasons, Appellant has not identified error in the Examiner's rejection of claim 1 as anticipated by Breuer. Appellant does not present separate arguments for the patentability of claims 3–6, which depend from claim 1. Thus, we sustain the rejection of claims 1 and 3–6 as anticipated by Breuer.

Claim 2

Claim 2 depends from claim 1 and recites, in relevant part, that the at least three anchoring members comprise first and second anchoring members proximate to the outboard end of the main body and a third anchoring member proximate to the inboard end of the main body. Appeal Br. 32 (Claims Appendix). The Examiner relied on the same findings as to the disclosure of anchoring members in Breuer to find the subject matter of claim 2 anticipated by Breuer. Non-Final Act. 7. Appellant reiterates that Breuer does not anticipate because it discloses only two mounting points. Appeal Br. 15. For the same reasons discussed above, we find no error in the Examiner's findings as to Breuer's disclosure of the claimed anchoring members. Thus, we sustain the rejection of claim 2 as anticipated by Breuer.

Claim 9

Claim 9 depends from claim 1 and recites that the at least three anchoring members comprise an inboard support fitting, a first outboard

support fitting, and a second outboard support fitting. Appeal Br. 33 (Claims Appendix). The Examiner relied on the same findings as to the disclosure of anchoring members in Breuer to find the subject matter of claim 9 anticipated by Breuer. Non-Final Act. 9. Appellant reiterates that Breuer does not anticipate because it discloses only two mounting points. Appeal Br. 16. Appellant further argues that even if each mounting point 2 and 3 included multiple fasteners 24 or 25, there would still remain just two mounting points 2 and 3, but not three separate and distinct fittings. *Id.*

The Examiner replied that the two separate and distinct mounting elements 25 are located on the outboard side of the header assembly, and, thus, are first and second outboard support fittings and mounting element 24 having threaded sleeve 28 is on the inboard side of the header assembly, and, thus, is a first inboard support fitting. Ans. 18.

Appellant has not identified error in the Examiner's findings. First, Appellant has not proposed an interpretation of "support fitting" that structurally distinguishes over either mounting elements 25 or threaded sleeve 28. Appellant's arguments are conclusory, and do not propose an interpretation of a support fitting in light of Appellant's Specification in a manner different from the structures in the prior art. Further, the Specification gives examples of "fittings" but does not define this term.

For these reasons and those discussed above, we find no error in the Examiner's findings as to Breuer's disclosure of the claimed anchoring members. Thus, we sustain the rejection of claim 9 as anticipated by Breuer.

Independent Claim 12

Independent claim 12 is directed to an aircraft assembly including a header assembly having a main body and "at least three separate and distinct

anchoring members that are configured to securely connect the main body to at least three separate and distinct reciprocal structures of the inboard and outboard structures.” Appeal Br. 34 (Claims Appendix). The Examiner relied on the same findings discussed above as to the disclosure of anchoring members in Breuer to find the subject matter of claim 12 anticipated by Breuer. Non-Final Act. 9–10. Appellant reiterates that Breuer does not anticipate because it discloses only two mounting points. Appeal Br. 16–18 (reiterating the same arguments presented against the rejection of claim 1). For the same reasons discussed above, we find no error in the Examiner’s findings as to Breuer’s disclosure of the claimed anchoring members. For these reasons, Appellant has not identified error in the Examiner’s rejection of claim 12 as anticipated by Breuer. Appellant does not present separate arguments for the patentability of claims 14–16 and 19, which depend from claim 12. Thus, we sustain the rejection claims 12, 14–16, and 19 as anticipated by Breuer.

Claim 13

Claim 13 depends from claim 12 and contains the same claim limitations as dependent claim 2. Appeal Br. 34 (Claims Appendix). The Examiner relied on the same findings as to the disclosure of anchoring members in Breuer to find the subject matter of claim 13 anticipated by Breuer. Non-Final Act. 10. Appellant reiterates that Breuer does not anticipate because it discloses only two mounting points. Appeal Br. 18–19. For the same reasons discussed above, we find no error in the Examiner’s findings as to Breuer’s disclosure of the claimed anchoring members. Thus, we sustain the rejection of claim 13 as anticipated by Breuer

Rejections of claim 7 over Breuer and either Roach or Bright

Appellant relies on the arguments asserting error in the rejection of independent claim 1 over Breuer as the basis for seeking reversal of the rejections of dependent claim 7 over Breuer and either Roach or Bright. Appeal Br. 19. Because we did not find error in the Examiner's rejection of claim 1, we likewise sustain the rejections of claim 7 as unpatentable over Breuer and either Roach or Bright.

Rejection of claim 8 over Breuer

Claim 8 depends from claim 1 and recites that the header assembly further comprises “an extension beam secured to the main body, wherein the at least three anchoring members are secured to the extension beam.” Appeal Br. 33 (Claims Appendix). The Examiner found that Breuer discloses an extension beam in its description of reinforcement 8 formed as integrated support rib 15, which extends over shells 5, 6, and 7. Non-Final Act. 15 (citing Breuer, Figs. 12, 13). The Examiner acknowledges that Breuer does not explicitly teach that the anchoring members are secured to the extension beam. *Id.* The Examiner finds, however, Breuer teaches that “composite shells may have greater thickness in areas that contribute more strongly to the transmission of forces.” *Id.* (citing Breuer 10, second to last paragraph). Based on this teaching in Breuer, the Examiner determined that it would have been obvious to one having ordinary skill to secure anchoring members 25 and 28 to an extension beam because one would understand that it is desirable to have the area of the main body to which the anchoring members attach thicker than the remainder of the main body. *Id.* at 15–16 (Examiner acknowledging that the area into which mounting element 24 and threaded sleeve 28 is fixed is thicker than other regions of the shell).

Appellant first contests the rejection of claim 8 based on the arguments presented in support of claim 1. Appeal Br. 21. We find these arguments unavailing for the reasons discussed above.

Appellant next contests the rejection of claim 8 because the Examiner “fails to point to anything in which three separate and distinct anchoring members are secured to an (that is, a single) extension beam.” *Id.* This argument does not address the rejection as articulated by the Examiner. Indeed, the Examiner acknowledged Breuer does not explicitly disclose that its mounting elements 25 and 28 are secured to its reinforcement 8. The Examiner provided, however, a reason, based on explicit teachings in Breuer, as to why one having ordinary skill in the art would have been led to attach the anchoring members (i.e., mounting elements) to an extension beam in the manner claimed. Appellant has not identified error in the Examiner’s findings or reasoning in this regard.

For this reason, we sustain the rejection of claim 8 as unpatentable over Breuer.

Rejection of claims 10 and 17 over Breuer and Bright

Claim 10

Appellant relies on the arguments asserting error in the rejection of independent claim 1 over Breuer as the basis for seeking reversal of the rejection of dependent claim 10 over Breuer and Bright. Appeal Br. 21–22. Because we did not find error in the Examiner’s rejection of claim 1, we likewise sustain the rejection of claim 10 as unpatentable over Breuer and Bright.

Claim 17

Appellant relies on the arguments asserting error in the rejections of claims 1, 8, and 9 as the basis for seeking reversal of the rejection of independent claim 17 over Breuer and Bright. Appeal Br. 22–24. Because we did not find error in the Examiner’s rejections of claims 1, 8, and 9, we likewise sustain the rejection of claim 17 as unpatentable over Breuer and Bright.

Rejection of claims 11 and 18 over Breuer and Ulbrich-Gasporevic

Claim 11

Claim 11 depends from claim 1 and recites that the main body is configured to be moved between a secured position and a pivoted position. Appeal Br. 33 (Claims Appendix). The Examiner found that Ulbrich-Gasporevic teaches a mounting device for a similar visual barrier in an aircraft, wherein the mounting device is attached to a rail of coupling device 404, which is a type of pivot joint with slide 407, that allows the mounting module and curtain to be stowed in the luggage bin when not in use. Non-Final Act. 19. The Examiner determined that it would have been obvious to replace one set of Breuer’s anchoring members with the pivot and sliding joint of Ulbrich-Gasporevic, to enable the header assembly and curtain to be moved to a pivoted position so as to increase the visible range in the cabin and store the header assembly and curtain within the aircraft when not in use. *Id.* at 19–20.

Appellant first contests the rejection of claim 11 based on the arguments presented in support of claim 1. Appeal Br. 24. We find these arguments unavailing for the reasons discussed above.

Appellant next argues that Breuer teaches that its “mounting points 2 and 3 are screwed/bolted in position” and thus Breuer’s structure “is incapable of being pivoted downward into a service position.” Appeal Br. 24–25 (Appellant arguing that “Breuer teaches away”) (emphasis omitted).

First, we agree with the Examiner that Appellant’s argument is not commensurate in scope with the claim language, which does not require the main body to be pivoted “downward.” Ans. 26 (Examiner stating that “[t]he claim does not recite any limitation regarding the direction or manner of pivoting, nor does it recite any limitation regarding the degree of pivoting).

Second, we agree with the Examiner Breuer does not teach away from the proposed modification. Appellant has not identified any teaching in Breuer that would have discouraged a person of ordinary skill from making the proposed modification based on the teachings of Ulrich-Gasparevic. *See In re Gurley*, 27 F.3d 551, 553 (Fed. Cir. 1994) (“A reference may be said to teach away when a person of ordinary skill, upon reading the reference, would be discouraged from following the path set out in the reference, or would be led in a direction divergent from the path that was taken by the applicant”). We do not find, nor does Appellant direct us to, any disclosure in Breuer that discourages or discredits the proposed modification of Breuer’s anchoring members with the pivoting assembly of Ulrich-Gasparevic. Breuer is silent as to any means other than those described to anchor element 1 to the aircraft. Further, Breuer explicitly teaches that the mounting elements allow adjustment of element 1 in several directions, e.g., the height and angular position of element 1 can be adjusted. Breuer 6–7. Thus, we do not find any disclosure in Breuer that would teach away from the proposed modifications to the anchoring members. Rather,

the Examiner identified explicit teachings in Ulbrich-Gasporevic that would have led one having ordinary skill in the art to implement the improvement of a pivotable anchoring member to achieve the benefit of a stowable header assembly.

Appellant also argues that neither Breuer nor Ulrich-Gasporevic “describes, teaches, or suggests a main body pivotally secured at one end, and disconnected from another end in a pivoted position.” Appeal Br. 24. As can be seen in Figures 4A, 4B, 5, 7, and 8 of Ulbrich-Gasporevic, the header assembly pivots around the pivot joint 407 so that in the pivoted position, the header is secured at the inboard end and disconnected from the outboard end. Thus, we find adequate support for the claimed subject matter in the combined teachings of the prior art.

For these reasons, Appellant’s arguments have not identified error in the Examiner’s rejection of claim 11. Thus, we sustain the rejection of claim 11 as unpatentable over Breuer and Ulbrich-Gasporevic.

Claim 18

Appellant contests the rejection of claim 18 based on the arguments presented in support of claims 11 and 12. Appeal Br. 24–26. We find these arguments unavailing for the reasons discussed above.

Rejection of claim 20 over Breuer, Bright, and Ulbrich-Gasporevic

Appellant contests the rejection of claim 20 based on the arguments presented in support of claims 1, 2, 8, and 11. Appeal Br. 26–31. We find these arguments unavailing for the reasons discussed above.

CONCLUSION

We do not sustain the Examiner's rejection of claims 10, 17, and 20 under 35 U.S.C. § 112(b). We sustain the Examiner's rejections under 35 U.S.C. §§ 102 and 103 of claims 1–20. Because we sustain at least one ground of rejection as to each of the claims on appeal, we affirm the Examiner's decision on unpatentability of claims 1–20.

DECISION SUMMARY

In summary:

Claims Rejected	35 U.S.C. §	Reference(s)/Basis	Affirmed	Reversed
10, 17, 20	112(b)	Indefiniteness		10, 17, 20
1–6, 9, 12–16, 19	102(a)(1) 102(a)(2)	Breuer	1–6, 9, 12–16, 19	
7	103	Breuer, Roach	7	
7	103	Breuer, Bright	7	
8	103	Breuer	8	
10, 17	103	Breuer, Bright	10, 17	
11, 18	103	Breuer, Ulbrich-Gasperevic	11, 18	
20	103	Breuer, Bright, Ulbrich-Gasperevic	20	
Overall Outcome			1–20	

AFFIRMED