



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
12/602,427	11/30/2009	Heinrich Walter	011235.61889US	4829
23911	7590	12/01/2016	EXAMINER	
CROWELL & MORING LLP INTELLECTUAL PROPERTY GROUP P.O. BOX 14300 WASHINGTON, DC 20044-4300			TSCHEN, FRANCISCO W	
			ART UNIT	PAPER NUMBER
			1712	
			NOTIFICATION DATE	DELIVERY MODE
			12/01/2016	ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

edocket@crowell.com  
tche@crowell.com

UNITED STATES PATENT AND TRADEMARK OFFICE

---

BEFORE THE PATENT TRIAL AND APPEAL BOARD

---

*Ex parte* HEINRICH WALTER

---

Appeal 2015-006731  
Application 12/602,427  
Technology Center 1700

---

Before PETER F. KRATZ, BRIAN D. RANGE, and  
DEBRA L. DENNETT, *Administrative Patent Judges*.

RANGE, *Administrative Patent Judge*.

DECISION ON APPEAL

SUMMARY

Appellant<sup>1</sup> appeals under 35 U.S.C. § 134(a) from the Examiner's decision rejecting claims 8–10 and 12–15. We have jurisdiction. 35 U.S.C. § 6(b).

We AFFIRM.

---

<sup>1</sup> According to the Appellant, the real party in interest is MTU Aero Engines GmbH. Appeal Br. 2.

STATEMENT OF THE CASE

Appellant describes the invention as relating to a method for adjusting the number of phases of a platinum aluminum (PtAl) gas turbine component. Spec. 1. The component could be used as part of an aircraft engine. *Id.* Claim 8, reproduced below with emphases added to certain key recitations, is the only independent claim on appeal and is illustrative of the claimed subject matter:

8. A method for adjusting phase numbers of PtAl layers when producing the PtAl layers during gas turbine component production or reconditioning, comprising:

applying a Pt layer with a thickness of no more than 2  $\mu\text{m}$  to the gas turbine component, homogenizing such that Pt in a base material of a gas turbine component is diffused, and aluminizing and controlling after the homogenizing such that an Al content is less than or equal to 23% by weight to produce a single-phase PtAl layer **when desired**; and

applying a Pt layer with a thickness in a range of 5  $\mu\text{m}$  to 8  $\mu\text{m}$  to the gas turbine component, homogenizing such that Pt in a base material of the gas turbine component is diffused, and aluminizing after the homogenization in order to produce a two-phase PtAl layer **when desired**.

Appeal Br.<sup>2</sup> 7 (Claims Appendix).

REFERENCES

The Examiner relies upon the prior art below in rejecting the claims on appeal:

Rigney et al. (hereinafter "Rigney")	US 6,372,321 B1	Apr. 16, 2002
Costanzo	US 7,481,070 B2	Jan. 27, 2009

---

<sup>2</sup> In this decision, we refer to the Final Office Action mailed October 9, 2014 ("Final Act."), the Appeal Brief filed March 3, 2015 ("Appeal Br."), the Examiner's Answer mailed May 19, 2015 ("Ans."), and the Reply Brief filed July 7, 2015 ("Reply Br.").

Appeal 2015-006731  
Application 12/602,427

Allen et al. (hereinafter “Allen”)	US 2001/0004474 A1	June 21, 2001
Worthing, Jr. et al. (hereinafter “Worthing”)	US 2003/0116237 A1	June 26, 2003

## REJECTIONS

The Examiner maintains the following rejections on appeal:

Rejection 1. Claims 8–10 and 12–15 under 35 U.S.C. § 112, ¶ 2 as indefinite. Ans. 3–4.

Rejection 2. Claims 8–10 and 12–15 under 35 U.S.C. § 102(b) as anticipated by Allen. *Id.* at 4.

Rejection 3. Claims 8–10 and 12–13 under 35 U.S.C. § 103 as unpatentable over the combination of Rigney and Worthing. *Id.* at 5.

## ANALYSIS

We review the appealed rejections for error based upon the issues identified by Appellant and in light of the arguments and evidence produced thereon. *Cf. Ex parte Frye*, 94 USPQ2d 1072, 1075 (BPAI 2010) (precedential) (cited with approval in *In re Jung*, 637 F.3d 1356, 1365 (Fed. Cir. 2011) (“it has long been the Board’s practice to require an applicant to identify the alleged error in the examiner’s rejections”)). After having considered the evidence presented in this Appeal and each of Appellant’s contentions, we are not persuaded that Appellant identifies reversible error, and we affirm the Examiner’s rejections for the reasons expressed in the

Final Office Action and the Answer. We add the following primarily for emphasis.

The Appellant does not separately argue any claims other than claim 8. Appeal Br. 4–6. We therefore limit our discussion to claim 8. All other claims stand or fall with that claim. 37 C.F.R. § 41.37(c)(1)(iv) (2013).

Rejection 1. The Examiner rejects independent claim 8 and claims depending from claim 8 under 35 U.S.C. § 112, ¶ 2 as indefinite. Ans. 3–4. Section 112, ¶ 2, requires “that a patent’s claims, viewed in light of the specification . . . inform those skilled in the art about the scope of the invention with reasonable certainty.” *Nautilus, Inc. v. Biosig Instruments, Inc.*, 134 S. Ct. 2120, 2129 (2014); see also *In re Warmerdam*, 33 F.3d 1354, 1361 (Fed. Cir. 1994) (“The legal standard for definiteness is whether a claim reasonably apprises those of skill in the art of its scope.”). In addition, our reviewing court stated that “[i]t is the applicants’ burden to precisely define the invention, not the PTO’s.” *In re Morris*, 127 F.3d 1048, 1056 (Fed. Cir. 1997).

The Examiner explains that both recited steps of claim 8 are optional by reciting that the step is performed “when desired.” Ans. 3. Thus, the claimed process “does not recite any active positive steps delimiting how the method is actually practiced” particularly for the case when neither of the optional recited steps is desired. *Id.*

As a threshold matter, we agree with the Examiner’s claim interpretation. During prosecution, the PTO gives the language of the proposed claims “the broadest reasonable meaning of the words in their ordinary usage as they would be understood by one of ordinary skill in the art, taking into account whatever enlightenment by way of definitions or

otherwise that may be afforded by the written description contained in the applicant's specification." *In re Morris*, 127 F.3d at 1054–55.

Here, the Specification explains that steps “assigned to a first group” of possible steps includes applying a Pt (platinum) layer, homogenization so that “the base material of the gas turbine component is diffused,” and aluminizing and controlling. Spec. ¶ 4. The second group of steps that may be desired includes applying the platinum layer, homogenization, and aluminization. *Id.* ¶ 5. Given this context, we conclude that the first recitation of “when desired” makes optional the recitation “applying a Pt layer with a thickness of no more than 2  $\mu\text{m}$  to the gas turbine component, homogenizing such that Pt in a base material of a gas turbine component is diffused, and aluminizing and controlling after the homogenizing such that an Al content is less than or equal to 23% by weight to produce a single-phase PtAl layer” as opposed to, for example, only modifying “aluminizing and controlling after the homogenizing . . . to produce a single-phase PtAl layer.” The second recitation of “when desired” makes optional the recitation “applying a Pt layer with a thickness in a range of 5  $\mu\text{m}$  to 8  $\mu\text{m}$  to the gas turbine component, homogenizing such that Pt in a base material of the gas turbine component is diffused, and aluminizing after the homogenization in order to produce a two-phase PtAl layer.” *See also* Reply Br. 2 (indicating that each “applying” act or operation of claim 8 is a “positive step[]” that need only be performed “when desired”).

Each of the longer recitations above (“applying . . . single-phase PtAl layer” and “applying . . . two-phase PtAl layer”) need only be performed if the condition precedent of “when desired” is met. If, for example, a two-phase PtAl layer / related recitations are not desired, the corresponding recited step need not be performed. *Cf. In re. Schulhauser*, Appeal 2013-

Appeal 2015-006731  
Application 12/602,427

007847, 2016 WL 6277792 (PTAB April 28, 2016) (precedential) (holding that, given claim language at issue requiring condition precedent, certain recitations need not be performed if condition precedent is not met).

Because claim 8 recites a method “comprising” the recited steps, it could include other unrecited steps. In the event that neither of the recited steps is “desired,” it is unclear what those other steps might be or how claim 8 is bounded by any particular PtAl layer production limits at all. Because claim 8 does not apprise one of skilled in the art about the scope of the invention with reasonable certainty, we thus agree with the Examiner that claim 8 is indefinite.

Appellant argues that claim 8 is not indefinite because past issued patents recite “when desired” in claims. Appeal Br. 4. Our ruling, however, is based on the record before us as a whole. Each of those cited patents was assessed based on its own record, and their claim language, in a vacuum, is inapposite to the issue in the application for a patent before us. Moreover, the Examiner cogently explains how the recitation of “when desired” in the cited patents’ claims is distinguishable. Ans. 3–4.

The Examiner also states that claim 8 is unclear because it is not clear what the recitation “phase numbers” refers to. Ans. 4. Given the context of the claims and the Specification, however, we agree with Appellant that “phase numbers” refers to the number of phases in the PtAl layer. Appeal Br. 4. We therefore sustain the Examiner’s indefiniteness rejection based solely upon claim 8’s use of recitations that are all only limiting “when desired.”

Rejections 2 and 3. The Examiner rejects claims 8–10 and 12–15 as anticipated by Allen (Ans. 4) and rejects claims 8–10 and 12–13 as obvious over Rigney and Worthing. *Id.* at 5. A preponderance of the evidence

Appeal 2015-006731  
Application 12/602,427

supports the Examiner's fact finding and conclusions regarding these references. Ans. 4–5; Final Act. (3–6) (providing citations to Allen, Rigney, and Worthing).

In some instances it may be impossible to resolve the opposing contentions raised on appeal as to whether claimed subject matter is anticipated by or would have been obvious over applied references because the claims are so indefinite that considerable speculation and assumptions would be required regarding the meaning of contested limitations employed in the claims with respect to the scope of the claims. *See In re Steele*, 305 F.2d 859, 862 (CCPA 1962).

Here, however, Appellant's only argument with respect to each of these rejections is that the prior art does not teach or suggest the recited two-phase PtAl layer step. Appeal Br. 5–7. The two-phase step, however, is optional. Ans. 4–5. Appellant's sole argument therefore fails to identify error in the Examiner's prior art rejections. We thus sustain the Examiner's anticipation and obviousness rejections.

#### DECISION

For the above reasons, we affirm the Examiner's rejection of claims 8–10 and 12–15.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a).

AFFIRMED