

The opinion in support of the decision being entered today was not written for publication and is not binding precedent of the Board.

Paper No. 23

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte MOHAMED BOUZIDI,
PHILIPPE CABURET,
PIERRE CLEMENT,
ANDRÉ CLAUDE FÉLIX COLLOT,
JEAN-LOU LEBRUN,
and
BENOIT MARTY

Appeal No. 1998-2265
Application No. 08/498,482

HEARD: May 24, 2001

Before WALTZ, TIMM, and DELMENDO, Administrative Patent Judges.
DELMENDO, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on an appeal under 35 U.S.C. § 134
from the examiner's refusal to allow claims 2, 6, and 8

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through 11.¹ Claim 7, which is the only other claim remaining in the application, has been indicated as allowable if rewritten in independent form. (Examiner's answer, page 2.)

The subject matter on appeal relates to a method of manufacturing a sheet of nickel based alloy 718. Further details of this appealed subject matter are recited in illustrative claim 6 reproduced below:

6. A method of manufacturing a sheet of nickel based alloy 718, comprising:

casting said alloy;

solution heat treating said alloy;

precipitation heat treating said alloy;

cold rolling said alloy at a rolling ratio of greater than 60%; and

recrystallization heat treating said alloy thereby forming an alloy with a grain size of at most 10 μm ;

¹ The appellants filed two separate amendments under 37 CFR § 1.116 (1981) on June 27, 1997 (paper 8) and July 28, 1997 (paper 11), both of which have been entered by the examiner. (Advisory actions of July 10, 1997 and August 12, 1997, papers 9 and 13.) The first amendment revised claims 6 and 9, while the second amendment presented further changes to claim 6.

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wherein said precipitation heat treating is conducted at a temperature of 730-800°C for 1-2 hours, and

said alloy 718 consists essentially of, in percent by weight:

Cr 17 to 21; Fe 16.5 to 20.5; Nb + Ta 4.75 to 5.5;

Mo 2.8 to 3.3; Ti 0.75 to 1.15; Al 0.3 to 0.7;

C 0.02 to 0.08; Mn below 0.35; Cu below 0.3; Co below 1;

B below 0.006; P below 0.015; S below 0.015;

Si below 0.35; Bi below 0.0001; Ag below 0.0005;

Pb below 0.001; and Ni as the remainder.

The examiner relies upon the following prior art reference as evidence of unpatentability:

Daniel A. DeAntonio, David Duhl, Timothy Howson, and Michael F. Rothman, Heat Treating of Superalloys, in 4 ASM HANDBOOK 793-814 (Steven R. Lampman, Theodore B. Zorc, Janice L. Daquila, Alice W. Ronke, Kari L. Henniger, Robert T. Kieपुरa, Heather F. Lampman, Penelope Thomas & Nikki D. Wheaton eds. 1990) (ASM Handbook).²

² Notwithstanding the statement on page 3 of the examiner's answer that "[n]o prior art is relied upon... in the rejection of the claims under appeal" (p. 3), the examiner refers to the ASM Handbook in the rejection (p. 4) and in the "Response to argument" section (p. 6).

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Claims 2, 6, and 8 through 11 stand rejected under the first paragraph of 35 U.S.C. § 112 as failing to satisfy the enablement requirement of the statute. (Examiner's answer, pages 3-5.)

We reverse the aforementioned rejection for reasons which follow.

The examiner's basic position is stated as follows:

Claims 2, 6, and 8-11 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for claims drawn to a method of manufacturing the alloy in the specification and claims comprising **solution treating at a temperature of 1060°C for about 15 minutes**, precipitation...one to two hours, cold rolling...60% and **recrystallization...10µm**, in order to impart superplasticity to the alloy, does not reasonably provide enablement for the scope claimed, which does not specify the solution treating parameters or the recrystallization parameters. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention commensurate in scope with these claims. [Examiner's answer, pp. 3-4.]

The examiner further alleges:

[T]he ability to determine processing parameters for preparing materials which will contain the fine grained microstructures claimed after the thermal history as claimed of casting, solution treating, cold working, precipitation hardening, and

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recrystallizing such that a fined grained alloy with less than 10 μm grains is required. [Id. at p. 4.]

We cannot agree with the examiner.

It is important to emphasize that the initial burden of establishing a prima facie case of non-enablement under the first paragraph of 35 U.S.C. § 112 rests on the examiner. In re Oetiker, 977 F.2d 1443, 1445, 24 USPQ2d 1443, 1444 (Fed. Cir. 1992). The predecessor of our reviewing court has stated as follows:

[A] specification disclosure which contains a teaching of the manner and process of making and using the invention in terms which correspond in scope to those used in describing and defining the subject matter sought to be patented must be taken as in compliance with the enabling requirement of the first paragraph of Section 112 unless there is reason to doubt the objective truth of the statements contained therein which must be relied on for enabling support.

In re Marzocchi, 439 F.2d 220, 223, 169 USPQ 367, 369 (CCPA 1971). Thus, it is only upon the advancement of acceptable reasoning on the part of the examiner that the burden of proving enablement shifts to the appellants. In re Strahilevitz, 668 F.2d 1229, 1232, 212 USPQ 561, 563 (CCPA 1982). Here, the examiner has not met the threshold initial burden of proof.

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“Although not explicitly stated in section 112, to be enabling, the specification of a patent must teach those skilled in the art how to make and use the full scope of the claimed invention without ‘undue experimentation.’”³ In re Wright, 999 F.2d 1557, 1561, 27 USPQ2d 1510, 1513 (Fed. Cir. 1993). As long as “undue experimentation” is not involved, a specification would comply with the enablement requirement of the statute even if a reasonable amount of routine experimentation is necessary to practice the claimed invention. Enzo Biochem Inc. v. Calgene, 188 F.3d 1362, 1371, 52 USPQ2d 1129, 1135 (Fed. Cir. 1999). That is, even “a considerable amount of experimentation is permissible, if it is merely routine, or if the specification in question provides a reasonable amount of guidance with respect to the

³ The question of whether making and using the invention would have required “undue experimentation” depends on several underlying factual inquiries including: (1) the quantity of experimentation necessary; (2) the amount of direction or guidance presented; (3) the presence or absence of working examples; (4) the nature of the invention; (5) the state of the prior art; (6) the relative skill of those in the art; (7) the predictability or unpredictability of the art; and (8) the breadth of the claims. In re Wands, 858 F.2d 731, 735, 736-37, 8 USPQ2d 1400, 1402, 1404 (Fed. Cir. 1988).

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direction in which the experimentation should proceed..."

Wands, 858 F.2d at 737, 8 USPQ2d at 1404.

As pointed out by the appellants (appeal brief, page 4), the specification contains a written description stating that the "solution heat treating" step is known to those skilled in the relevant art. (Page 5.) Given this description, together with other guidance in the form of a specific example (1060EC for 15 minutes) of a solution heat treatment step (id.; claim 7), it is our view that one skilled in the relevant art could have easily determined as a matter of routine experimentation what temperatures and times for the solution heat treatment step would provide the here claimed "grain size of at most 10 Fm." The same is also true for the "recrystallization heat treating" step given the specification description at pages 6-8. Accordingly, we determine that one skilled in the relevant art could have easily determined, without any need for undue experimentation, as to which specific conditions would provide a "grain size of at most 10 Fm" as recited in appealed claim 6, the sole independent claim on appeal.

Moreover, appealed claim 6 does not read on any conditions for the "solution heat treating" and

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"recrystallization heat treating step," as the examiner would have us believe. Quite oppositely, appealed claim 6 is commensurate with the scope of enablement because it covers only those conditions which provide a "grain size of at most 10 Fm." Cf. In re Cortright, 165 F.3d 1353, 1359, 49 USPQ2d 1464, 1468 (Fed. Cir. 1999) ("Properly construed, claim 1 is amply supported by the written description because Example 1 discloses the amount of [hair restoring composition] to apply (about one teaspoon daily) and the amount of time (about one month) in which to expect results.").

For these reasons, we cannot uphold the examiner's rejection of appealed claims 2, 6, and 8 through 11 under the first paragraph of 35 U.S.C. § 112 as failing to satisfy the enablement requirement of the statute.

The decision of the examiner is reversed.

REVERSED

THOMAS A. WALTZ)
Administrative Patent Judge)
)

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CATHERINE TIMM
Administrative Patent Judge

ROMULO H. DELMENDO
Administrative Patent Judge

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