

The opinion in support of the decision being entered today was not written for publication and is not binding precedent of the Board.

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte JOVAN STARCEVIC

Appeal No. 2004-1926
Application 09/714,670

ON BRIEF

Before OWENS, KRATZ and PAWLIKOWSKI, *Administrative Patent Judges*.

OWENS, *Administrative Patent Judge*.

DECISION ON APPEAL

This appeal is from the final rejection of claims 1-29. Claims 31, 33 and 35, which are all of the other claims pending in the application, have been allowed.

THE INVENTION

The appellant claims a process for bright annealing and then electrolytically cleaning a stainless steel article. Claim 1 is illustrative:

1. A process for producing a stainless steel article having improved surface properties, comprising the steps of:

annealing a stainless steel article in a bright annealing furnace in a presence of a bright annealing atmosphere at a temperature and for sufficient time to produce a bright annealed finish on said article; and

thereafter treating said stainless steel article in an electrolyte solution and applying an electric current to said electrolyte solution at a current density of up to about 200 A/dm².

THE REFERENCES

Zaremski	4,363,709	Dec. 14, 1982
Lovejoy	4,450,058	May 22, 1984
Kiyo ¹ (Japanese kokai)	63-86899	Apr. 18, 1988

Robert B. Ross, *Handbook of Metal Treatments and Testing* 173 (Halsted Press 1977).

McGraw-Hill Dictionary of Science and Engineering 119 (Sybil P. Parker ed., McGraw-Hill 1984).

¹ Citations herein to Kiyo are to the English translation thereof which is of record.

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THE REJECTIONS

The claims stand rejected under 35 U.S.C. § 103 as follows: claims 1-10, 22 and 23 over Zaremski or Lovejoy, each in view of the McGraw-Hill Dictionary and the Handbook of Metal Treatments and Testing; claims 27-29 over Zaremski in view of the McGraw-Hill Dictionary and the Handbook of Metal Treatments and Testing; and claims 1, 11-21 and 24-26 over Kiyo in view of the McGraw-Hill Dictionary and the Handbook of Metal Treatments and Testing.

OPINION

We reverse the aforementioned rejections. We need to address only the independent claims, i.e., claims 1, 24 and 27.

Each of the appellant's independent claims requires "annealing a stainless steel article in a bright annealing furnace in the presence of a bright annealing atmosphere at a temperature and for sufficient time to produce a bright annealed finish on said article" and thereafter treating the article with an electrolyte.

The McGraw-Hill Dictionary defines bright annealing as "[h]eating and cooling a metal in an inert atmosphere to inhibit oxidation; surface remains relatively bright."

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The Handbook of Metal Treatments and Testing defines bright annealing as "[a] term covering the annealing of any metal whereby the component is removed from the furnace in an oxide-free condition", and states that "[w]hile it is sometimes possible to produce a surface which is bright and shiny, this criterion is not essential for the correct use of the term. Provided the components are removed with no free scale and a limited amount of adherent oxide, then it can be stated that the parts have been Bright annealed."

Zaremski discloses that heat treating operations such as annealing "are typically performed, at least in part, in an oxidizing atmosphere which causes an oxide scale to form on the surface of the metal" (col. 2, lines 15-18), and that "the present invention provides a method of descaling a metallic body without the use of acid solutions by employing a relatively high current density in an electrolyte consisting of an aqueous solution containing about 15 to 20 weight percent sodium sulfate" (col. 1, lines 39-44). Zaremski's disclosed current density range is 46.5 to about 310 A/dm² (col. 3, lines 20-25).

Lovejoy discloses that it was known in the art to bright anneal stainless steel (col. 1, lines 22-34). Lovejoy's invention is a process for "producing stainless steel having a bright annealed-like surface without the need for annealing in a controlled atmosphere" (col. 1, lines 6-10). Lovejoy anneals the stainless steel in air and then electrolytically descales the stainless steel at a current density of 1.55 to 7.75 A/dm² using an electrolyte consisting essentially of an aqueous solution of at least one neutral salt selected from a chloride, sulfate or nitrate of an alkali metal or ammonium (col. 2, lines 16-28).

Kiyo anneals stainless steel in a reducing or oxidative atmosphere and then descales the stainless steel by electrolysis at a current density of at least 10 A/dm² using a 900 to 1,250 g/l aqueous sulfuric acid solution as the electrolytic solution (pages 5-6 and table 1).

The examiner argues that "[t]he statement in claim 1 that annealing is 'in a bright annealing furnace in the presence of a bright annealing atmosphere' denotes largely apparatus limitations upon the claimed process, and such apparatus limitations do not render an otherwise known process patentable" (answer, page 4). This argument is not well taken because the appellant's requirement of annealing in a bright annealing

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furnace in the presence of a bright annealing atmosphere clearly is a process limitation.

The examiner argues (answer, pages 8-9):

While Zaremski does discuss oxide, and in fact uses the electrolytic treatment to remove oxide, the amount of oxide in the Zaremski process can clearly be defined as "limited" within the meaning of the term as in the Handbook of Metal Treatments definition, i.e., it is limited to an amount which can be removed by a prescribed electrolytic process. Lovejoy is particularly concerned with producing a "bright surface quality" and a "bright annealed-like surface" without the need for controlling the atmosphere. This clearly fits within the Handbook of Metal Treatments definition of the term "bright" annealing. Kiyo discloses several different annealing procedures, and provides specific examples of steel annealed under those procedures followed by an electrolytic treatment substantially as presently claimed, and which result in a product that is completely descaled with favorable luster. Such procedures would fall within the Handbook of Metal Treatments definition of "bright" annealing. Given that the definition of bright annealing has no defined limits upon the atmosphere used or the specific end result of a bright annealing treatment, and given that the prior art either specifically states that one obtains a surface similar to a bright annealed surface (Lovejoy), a descaled surface with favorable luster (Kiyo), or a product with the scale completely removed (Zaremski), the examiner's position is that whatever annealing procedures are set forth in the prior art fall within the definition of "bright" annealing as generally known in the art and as recited in the appealed claims.

"It is a well-established axiom in patent law that a patentee is free to be his or her own lexicographer [citation omitted], and thus may use terms in a manner contrary to or

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inconsistent with one or more of their ordinary meanings. For this reason, an analysis of the specification and prosecution history is important to proper claim construction." *Hormone Research Foundation Inc. v. Genentech Inc.*, 904 F.2d 1558, 1563, 15 USPQ2d 1039, 1043 (Fed. Cir. 1990).

The appellant states in the specification that "[a]s used herein the bright annealed stainless steel refers to stainless steel that has been annealed in an inert atmosphere and preferably in a hydrogen atmosphere" (page 8, lines 23-25). The appellant's argument regarding the meaning of "bright annealing" is consistent with the specification (brief, page 4). The examiner erred by not interpreting "bright annealing" in the appellant's claims consistently with the meaning of that term as set forth in the specification.

Because the examiner has not established that Zaremski, Lovejoy or Kiyo discloses, or would have fairly suggested, to one of ordinary skill in the art, 1) bright annealing a stainless steel article as the term "bright annealing" is used by the appellant, i.e., annealing in an inert atmosphere, and 2) thereafter treating the article with an electrolyte, the

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examiner has not established a *prima facie* case of obviousness of the appellant's claimed process. Accordingly, we reverse the examiner's rejection.

DECISION

The rejections under 35 U.S.C. § 103 of claims 1-10, 22 and 23 over Zaremski or Lovejoy, each in view of the McGraw-Hill Dictionary and the Handbook of Metal Treatments and Testing, claims 27-29 over Zaremski in view of the McGraw-Hill Dictionary and the Handbook of Metal Treatments and Testing, and claims 1, 11-21 and 24-26 over Kiyo in view of the McGraw-Hill Dictionary and the Handbook of Metal Treatments and Testing, are reversed.

REVERSED

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TERRY J. OWENS)	
Administrative Patent Judge)	
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)	BOARD OF PATENT
PETER F. KRATZ)	
Administrative Patent Judge)	APPEALS AND
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BEVERLY A. PAWLIKOWSKI)	
Administrative Patent Judge)	

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