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LEXSEE 188 USPQ 356

IN THE MATTER OF THE APPLICATION OF JOHN T. MAYHEW

Patent Appeal No. 74-608

UNITED STATES COURT OF CUSTOMS AND PATENT APPEALS

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January 15, 1976

PRIOR HISTORY: [**1] Serial No. 46,825.

LexisNexis(R) Headnotes

OPINIONBY:

RICH

OPINION: [*1230]

RICH, Judge.

This appeal is from the decision of the Patent and Trademark Office Board of Appeals sustaining the examiner's rejection of claims 1-27, 29-48, 51, and 52 of application serial No. 46,825, filed June 16, 1970, for "Method of Producing Iron-Zinc Alloy Coated Steel Strip and Product Thereof." The final rejection indicated that claims 49 and 50 would be allowable if in independent form. We affirm in part and reverse in part.

The original decision herein was handed down March 13, 1975, reaching the same result we now reach. March 28, 1975, appellant filed a Petition for Rehearing which we granted. Further oral argument was held October 8, 1975.

Our former opinion, withheld from publication, is hereby withdrawn. The following is the opinion of the court.

The Invention

The invention of all appealed claims but two is a method for the production of a corrosion-resistant, iron-zinc alloy coating on a steel strip. Referring to Fig. 2 of

appellant's drawing, reproduced below in slightly modified form,

[Graphic omitted. See illustration in original.]
[*1231]

steel strip 16 is heated to approximately 1000 [**2] degrees F. or greater, ordinarily considered higher than optimum, and passed, in the direction of the arrow, into a molten bath 56 of spelter of about 99% zinc containing up to .30% aluminum. The bath, "except for a defined minor portion specially located at its exit side, is maintained at approximately 900 degrees F. to 950 degrees F. or higher" by heat from strip 16 and other heat sources such as 63, as needed. Iron-zinc alloy is formed on the strip while it is submerged. After the strip passes around sink roll 50, the strip, now designated 52, travels into cooled spelter zone 54, containing coolers 56', 58, 60, and 62 which control the temperature of zone 54 to between 800 degrees F. and 860 degrees F., depending on the gauge of the strip. The cooled zone functions to terminate alloying. Strip 52 then passes between heated gas jets 66, 68 which remove the spelter, exposing the iron-zinc alloy surfaces.

Claim 1, the sole independent claim, reads:

1. Continuous-strip method for producing coated steel strip comprising

(a) forming a molten galvanizing bath containing aluminum additions up to 0.30% by weight,

(b) introducing heated steel strip into the molten galvanizing [**3] bath, the strip entering the bath being at a temperature higher than the temperature of the molten spelter in the bath thereby adding heat to the bath,

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(c) maintaining molten galvanizing spelter in the bath at a temperature of approximately 890 degrees F. to approximately 950 degrees F.,

(d) moving the heated strip through the bath toward an exit side of the bath,

(e) forming an iron-zinc alloy coating on the moving strip by contacting the moving strip with molten spelter at a temperature of approximately 890 degrees F. to approximately 950 degrees F.,

(f) delivering the strip from the exit side of the bath, the delivered strip having an inner iron-zinc alloy coating and an outer molten galvanizing spelter coating, and

(g) directing gas under pressure against at least one side of the coated steel strip upon delivery of the coated steel strip from the molten galvanizing bath to remove the molten galvanizing spelter coating from the iron-zinc alloy coated steel strip on the one side.

All of the remaining method claims, and hence the two product-by-process claims, depend, directly or indirectly, from claim 1, adding various limitations thereto.

The Rejections

The examiner [**4] rejected the appealed claims, in various groups, on five different grounds. The board reversed one ground, leaving four which are as follows:

(1) Claims 1, 24-27, 29-46, and 52 because they fail to recite any cooling zone;

(2) Claims 2, 3, 6, 7, 9, 10, 12, 15, 16, 18-21, 23, and 51 because, though a cooling zone is specified, the location of the portion of the bath cooled is not specified;

(3) Claims 4, 5, 8, 11, 13, 14, 17, 22, 47, and 48 because, though a cooling zone and its location are specified, neither the temperature range in that zone nor its function is stated;

(4) Claims 51 and 52 because they are "improper" product-by-process claims.

The Examiner's Answer states that the foregoing rejections are under 35 USC 112 "for the reasons set forth in paragraph 11 of Paper No. 2." Continuing, it reads (all emphasis ours):

The examiner contends that what applicant refers to as his "invention covered by the appealed claims" * * * is not supported by the specification disclosure without the step of cooling a zone of the metal at the exit side of the bath. [*1232]

* * *

The examiner contends that what applicant refers to as the "best mode" of carrying out his [**5] invention is

in fact the only mode supported by the specification disclosure.

* * *

Whether applicant's invention is considered to be mechanical or physical appears to be immaterial. The claims of mechanical as well as chemical cases must be "fairly supported by the original application".

Although the examiner failed to specify what paragraph of § 112 he was relying on - the better practice being to so specify in order to comply fully with the spirit of § 132 - it is clear that he was relying on § 112, paragraph one, which requires that claims be supported by an enabling disclosure. We have previously given extended consideration to similar ambiguous reliance on § 112 in *In re Borkowski*, 57 CCPA 946, 422 F.2d 904, 164 USPQ 642 (1970), and *In re Moore*, 58 CCPA 1042, 439 F.2d 1232, 169 USPQ 236 (1971). Reference to paragraph 11 of Paper No. 2, the examiner's final rejection, confirms that his rejection was, except for the product-by-process claims, based on insufficiency of the specification, for lack of enabling disclosure, to support the claims, which is a paragraph one rejection. Paragraph 11 further expounds on the rationale of the rejection. With emphasis added by us, [**6] it reads in pertinent part:

11. Claims 1-48, 51 and 52 are rejected under 35 U.S.C. 112 as failing to properly define the invention. Claims 1, 24-46 and 52 are based on an insufficient disclosure since applicant has disclosed that - cooling a portion of the molten spelter at the exit side of the bath to a temperature of approximately 800 degrees F. to approximately 860 degrees F - and - delivering the steel strip from the bath upon passage through the zone of cooled spelter - are essential steps in his inventive process. Claims 2, 3, 6, 7, 9, 10, 12, 15, 16, 18-21, 23 and 51 are based on an insufficient disclosure since applicant has disclosed that the zone of cooled spelter is located at the strip exit side of the bath. * * * Claims 4, 5, 8, 11, 13, 14, 17, 22, 47 and 48 are based on an insufficient disclosure since applicant has failed to specify the temperature of the zone of cooled spelter to be approximately 800 degrees F. to approximately 860 degrees F. or the function of the cooled spelter. * * * Claims 51 and 52 are improper product-by-process claims. Product-by-process claims are only permitted upon a showing by applicant that the product can only be described by referring [**7] to the process of making it. Note M.P.E.P. 706.03(e). It is noted that the resulting product was claimed in the parent application S.N. 375,264 without referring to the method of making the product.

In affirming these rejections, the board added nothing to the examiner's reasoning which requires notice. It simply agreed with him point by point, except

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as to the one ground it reversed, which we have omitted from paragraph 11, above.

OPINION

As the examiner noted in his Answer, the only mode of operation of appellant's process disclosed in his specification involves the employment of a cooling zone in the spelter bath at the point where the steel strip exits from the bath. Notwithstanding this fact, appellant asserts that his specification is enabling with regard to the formation of the desired alloy coating without the employment of a cooling zone, or without specially locating it.

To achieve the desired alloy coating, n1 appellant discloses two criteria. First, the iron must be alloyed with zinc out of contact with an oxidizing atmosphere. In other words, the alloying operation [*1233] must be performed wholly within the spelter bath before the strip enters the [**8] surrounding atmosphere. Second, the main body of the spelter bath is kept at a temperature higher than what is ordinarily considered optimum. Appellant has taught how to achieve both conditions by employing a cooling zone at the point where the strip leaves the bath. Without a cooling zone at the exit side, the unusually high bath temperature would cause alloying to continue when the strip leaves the bath (due to its high temperature) and result, for various reasons, in an inferior alloy coating. Appellant's specification states that the "strip * * * and bath * * * are raised in temperature above what is ordinarily considered optimum coating temperatures. This is practicable because of special cooling apparatus, specially located." (Emphasis ours.)

n1 Appellant describes his alloy coating as possessing "a uniform, smooth finish suitable for painting without bonderizing or other treatment and formable to the same extent as the base metal without cracking."

Although appellant now strenuously argues that the cooling bath is optional, his specification not only fails to support this contention, but leads us, as it did the examiner and board, to believe that both it and its [**9] location are essential. We therefore conclude that claims which fail to recite the use of a cooling zone, specially located, are not supported by an enabling disclosure. Rejections (1) and (2), supra, will therefore be sustained.

The board further affirmed the examiner's rejection of certain claims, which we have designated (3), because they fail to recite the temperature of the zone of cooled spelter or the function thereof. We will not sustain this rejection, which is the only rejection of this particular group of claims.

Appellant argues that the recitation of a specific

temperature range would be unduly restrictive. The board and solicitor seem to agree on this point inasmuch as they merely insist that the function of the cooling zone be recited. However, we find that the cooling zone is taught to accomplish various functions, some of which are dependent upon numerous variables. Reading the claims, as they must be read, in the light of the specification, we think that the general function of the cooling zone is clear from the other recitations of the claims and that selection of the temperature of the zone would be within the ability of one of ordinary skill in the [**10] art attempting to follow the teaching of the specification. It is also apparent that the temperature of the cooling zone would have to be regulated to meet varying conditions, such as the temperature of the main body of the bath, the thickness of the strip, the speed of its movement through the bath, etc. For purposes of further discussion, we set forth claims 2 and 48:

2. The method claimed in claim 1 comprising subjecting a portion of the molten galvanizing spelter in the bath to heat exchange contact with a cooling fluid to cool said portion of the bath.

48. The method of claim 2 in which the cooled portion of the bath is located at the strip exit side of the bath and the steel strip is delivered from the molten galvanizing bath upon passage through the cooled portion, the strip as so delivered having thereon a weight of inner iron-zinc alloy coating of approximately 0.3 to approximately 0.7 ounce per square foot of strip and a smooth, even, non-gritty, outer molten galvanizing spelter coating. n2 [Emphasis ours.]

n2 The last-mentioned feature of this particular claim, namely, different surfaces on the inner and outer sides of the strip, is achieved by removing the spelter by gas blast from only one side as the strip emerges from the cooling zone. Compare element (g) of claim 1, reproduced supra. Appellant calls this "differentially coated steel strip." [**11]

The emphasized words in claim 48 are present in each of the ten claims of the group under discussion.

We think it self-evident that the function of the cooling zone is simply to cool the strip. The reasons for cooling and the resultant advantages, which make clear what the proper degree of cooling will be in any given situation, are [*1234] explained in the specification. For example, it contains, inter alia, the following:

The cooled spelter zone is ordinarily held to a temperature around 840 degrees F. to 860 degrees F. with any variations below this range being dependent on the product. This zone is ordinarily not cooled below 800 degrees F. and a temperature around 820 degrees F. can

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be used when cooling requirements dictate, e.g. for the heavier gages. The remainder of bath 56 is maintained at a temperature around 900 degrees F. to 950 degrees F.

An important function of the galvanizing bath cooler is to cool the molten spelter applied to iron-zinc alloy coated strip and to cool the steel base metal. In this way, iron-zinc alloying is terminated before contact of the coated strip with ambient atmosphere.

* * *

The bath cooling apparatus serves other important **[**12]** functions such as reducing iron dissolution in the galvanizing spelter applied to the strip 52. The temperature of the galvanizing spelter on strip 52 upon exit from zone 54 is at or near the temperature of zone 54. If high temperature galvanizing spelter were present in zone 54, iron dissolution and dross formation would make it impossible to produce the smooth coat produced by the present invention. Without this cooling feature, a gritty, uneven, unacceptable surface would be formed and it would not be practicable to maintain the remainder of the bath at the temperature level required to produce the desired alloy.

We are therefore of the opinion that the specification is enabling with respect to the claims of this group. The PTO has not insisted that a temperature range be set forth, and we feel that a statement of function would be superfluous. The language employed in a claim must always be analyzed in light of the specification, which here adequately teaches the function of the zone of cooled spelter. See *In re Sarett*, 51 CCPA 1180, 327 F.2d 1005, 140 USPQ 474 (1964); *In re Corr*, 52 CCPA 1505, 347 F.2d 578, 146 USPQ 69 (1965); *In re Honn*, 53 CCPA 1469, 364 F.2d 454, 150 **[**13]** USPQ 652 (1966).

In view of our affirmance of the rejection of claims 51 and 52 on grounds (1) and (2), ground of rejection (4), supra, which involves only these two claims, need not be, and is not, reached. n3

n3 We have noted the solicitor's statement that should we reach this rejection, he suggests a remand in view of a change made in M.P.E.P. 706.03(e) and our decision in *In re Hughes*, 496 F.2d 1216, 182 USPQ 106 (CCPA 1974). These go only to the question of whether the claims are "improper."

Accordingly, the decision of the board as to claims 1-3, 6, 7, 9, 10, 12, 15, 16, 18-21, 23-27, 29-46, 51, and 52 is affirmed and its decision as to claims 4, 5, 8, 11, 13, 14, 17, 22, 47, and 48 is reversed.

MODIFIED

CONCURBY:

BALDWIN

CONCUR:

BALDWIN, Judge, concurring.

Background

I completely agree with the majority opinion in this case, as far as it goes. I find myself compelled to express my views by way of this concurring opinion because the majority does not go far enough.

This appeal has been before us for quite some time. As the majority states, our original opinion was handed down on March 13, 1975. We granted appellant's Petition for Rehearing basically because **[**14]** of our uncertainty of the appropriate paragraph of 35 USC 112 employed by the PTO as a basis for its rejections. I have maintained, from the outset, that a complete disposition of the present appeal required an analysis of both the first and second paragraphs of § 112. The majority has elected to discuss only the first paragraph; I shall deal with the second.

I have decided to express my views by way of this concurring opinion for another reason. It would seem that my **[*1235]** understanding of the meaning of the second paragraph of § 112 is not shared by my brothers of this court. Through the years, I have played an active role in developing our case law in this vital area. Beginning in 1970, we departed from a vast line of authority which permitted the PTO to reject claims under the second paragraph of § 112 for "undue breadth." Up to that time, examiners quite frequently determined what they felt the invention was and rejected all claims which were broader than their conception of the invention, using the second paragraph of § 112 as the statutory basis. Most often, the examiner's conception of the invention was derived from a reading of an applicant's specification. **[**15]**

The present appeal is not one of these cases. As the following opinion will show, this court is improperly confusing "undue breadth" with the situation presented in the instant case, wherein certain claims do not recite that which applicant, in his own words, regards as his invention.

The Rejections

The majority characterizes the rejection made by the examiner and affirmed by the board to be solely founded upon the first paragraph of § 112. However, as the majority recognizes, no specific paragraph of § 112 has been referred to by either the examiner or board. Thus, we are forced to speculate as to the specific rejection(s) involved herein.

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The board affirmed the examiner's rejections which were recited in paragraph 11 of Paper No. 2 of the final rejection. The majority has quoted paragraph 11 and repetition of it now would serve no purpose. The board then continued:

Claims 1, 24 to 46 and 52 were rejected under 35 U.S.C. 112 as failing to recite - cooling a portion of the molten spelter at the exit side of the bath to a temperature of approximately 800 degrees F. to approximately 860 degrees F - and - delivery of the steel strip from the bath upon passage through [**16] the zone of cooled spelter. We will sustain this rejection because we are convinced from the disclosure in the specification that appellant clearly regarded these steps as essential steps in his inventive process. These steps are not recited in these claims.

* * *

Claims 2, 3, 6, 7, 9, 10, 12, 15, 16, 18 to 21, 23 and 51 were rejected under 35 U.S.C. 112 as failing to recite the location of the zone of cooled spelter at the strip exit side of the bath. We agree with the rejection.

* * *

From the disclosure in appellant's specification * * * there is a very strong inference that if the cooling zone were not specially located at the exit side of the metal coating bath, it would not render practicable the employment of bath temperatures above what are ordinarily considered optimum coating temperatures. Under these circumstances, since the claims under consideration do not recite the special location of the cooling zone, and the specification clearly teaches that the location is specific, the scope of enablement is not commensurate with the scope of protection sought. We will sustain the rejection.

Analysis of the language used by the examiner and board indicates that [**17] both the first and second paragraphs of § 112 were employed in rejecting appellant's claims. The examiner seemed more interested in § 112, first paragraph, when he stated that "[claims] 1, 24-46 and 52 are based on an insufficient disclosure since applicant has disclosed that * * *." n1

n1 It is interesting to note however that the examiner commenced his rejection with the following sentence:

Claims 1-48, 51 and 52 are rejected under 35 U.S.C. 112 as failing to properly define the invention.

This is clearly material to a second paragraph rejection. [**1236]

The board affirmed the examiner while using

language at least tacitly employing § 112, second paragraph, as a basis. The board quoted from appellant's specification, determined from this what appellant regarded as his invention, and affirmed the rejection of claims 1-3, 6, 7, 9, 10, 12, 15, 16, 18-21, 23-27, 29-46, 51 and 52 because they failed to recite those steps or conditions necessary for a complete description of the invention.

n2 Basically, the board determined that a complete recitation of appellant's invention must include a spelter bath containing a zone of cooled spelter located at the point where the coated steel strip exits from the bath. [**18]

The majority has chosen to affirm the rejection of claims 1-3, 6, 7, 9, 10, 12, 15, 16, 18-21, 23-27, 29-46, 51 and 52 based solely upon 35 USC 112, first paragraph. I view the rejections to be both under the first and second paragraphs. In the past, when we have been uncertain of the actual statutory grounds of rejection in this area, we have, for the sake of completeness, treated the claims on appeal as if they were rejected under both the first and second paragraphs of § 112. See *In re Moore*, 58 CCPA 1042, 1046, 439 F.2d 1232, 1235, 169 USPQ 236, 238 (1971). In that the majority has adequately discussed the first paragraph of § 112, I shall limit my discussion to the second paragraph.

OPINION

The claims must first be analyzed in order to determine exactly what subject matter they encompass. As we stated in *In re Moore, supra*, with regard to a rejection under the second paragraph of 35 USC 112, the subject matter set out in the claims must be presumed, in the absence of evidence to the contrary, to be that which the applicant regards as his invention. Thus, the burden of proof is upon the Patent and Trademark Office to demonstrate that the claims do not comply with 35 [**19] USC 112, second paragraph. I find that this burden has been met.

In the specification it is specifically recited:

[Strip] 16 and bath 30 are raised in temperature above what is ordinarily considered optimum coating temperatures. This is practicable because of special cooling apparatus, specially located.

* * *

An important function of the galvanizing bath cooler is to cool the molten spelter applied to iron-zinc alloy coated strip and to cool the steel base metal. In this way, iron-zinc alloying is terminated before contact of the coated strip with ambient atmosphere.

* * *

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The bath cooling apparatus serves other important functions such as reducing iron dissolution in the galvanizing spelter applied to the strip 52. The temperature of the galvanizing spelter on strip 52 upon exit from zone 54 is at or near the temperature of zone 54. If high temperature galvanizing spelter were present in zone 54, iron dissolution and dross formation would make it impossible to produce the smooth coat produced by the present invention. Without this cooling feature, a gritty, uneven, unacceptable surface would be formed and it would not be practicable to maintain the remainder of **[**20]** the bath at the temperature level required to produce the desired alloy. [Emphasis added.]

It can therefore be seen from the specification that appellant regards his invention as including the cooling of a portion of the molten spelter at the exit side of the bath and the delivery of the steel strip from the bath after passage through the zone of cooled spelter. Thus appellant has not claimed the subject matter which he regards as his invention.

In appellant's Petition for Rehearing, it was argued that our initial decision as to the unpatentability of the above-enumerated claims under *35 USC 112*, **[*1237]** second paragraph, is directly contrary to the law as laid down in *In re Borkowski*, 57 CCPA 946, 422 F.2d 904, 164 USPQ 642 (1970). It is the following language, quoted from Borkowski, which appellant relied upon:

The first sentence of the second paragraph of § 112 is essentially a requirement for precision and definiteness of claim language. If the scope of subject matter embraced by a claim is clear, and if the applicant has not otherwise indicated that he intends the claim to be of a different scope, [emphasis added] then the claim does particularly point out **[**21]** and distinctly claim the subject matter which the applicant regards as his invention. That is to say, if the "enabling" disclosure of a specification is not commensurate in scope with the subject matter encompassed by a claim, that fact does not render the claim imprecise or indefinite or otherwise not in compliance with the second paragraph of § 112; rather, the claim is based on an insufficient disclosure (§ 112, first paragraph) and should be rejected on that ground. See *In re Fuetterer*, 50 CCPA 1453, 319 F.2d 259, 138 USPQ 217 (1963); *In re Kamal*, 55 CCPA 1409, 398 F.2d 867, 158 USPQ 320 (1968); and *In re Wakefield* (PA 8192), decided concurrently herewith. Thus, just as a claim which is of such breadth that it reads on subject matter disclosed in the prior art is rejected under § 102 rather than under the second paragraph of § 112, a claim which is of such breadth that it reads on subject matter as to which the specification is not "enabling" should be rejected under the first paragraph of § 112 rather than the second. We do not intend hereby to suggest that rejections under § 112 must be labeled "first paragraph" or "second paragraph."

What we do suggest is that it should **[**22]** be made clear exactly which of the several requirements of § 112 are thought not to have been met. Is the claim unclear or is the specification's disclosure inadequate to support it? [Footnotes deleted.]

A close examination of Borkowski indicates that appellant's protestations are not well founded. Borkowski involved a rejection of certain claims (claims 7-10) under *35 USC 112* because they "are unduly broad and indefinite in the recitation of the 'hydrocarbon reactant.'" The examiner reasoned as follows:

This term ["hydrocarbon"] encompasses an almost limitless number of compounds, and, hence, is not adequately supported by the somewhat limited disclosure. The salient absence of a representative example for the various types of hydrocarbons alleged to be suitable for use in the instant process further [renders] the support for the breadth of the claims on appeal inadequate. [Emphasis added.]

Thus, Borkowski was a case dealing with the breadth of claims, not whether an appellant was claiming what he regarded as his invention. The examiner's only criticism was that the specification did not support a term as broad as "hydrocarbon." Certainly the court was correct **[**23]** in its decision that the claims should have been rejected under the first paragraph of § 112 as being based on a specification which was not enabling, rather than on the second paragraph.

In reaching the conclusion that certain of appellant's claims fail to satisfy *35 USC 112*, second paragraph, I am not resurrecting the old rejection of claims being too broad. n3

I am following Borkowski and Moore in that I now reaffirm the conviction that a claim is considered to particularly point out and distinctly claim the subject matter which the appellant regards as his invention unless appellant has otherwise indicated that he intends the claims to be of a different scope. As can be seen from the passages quoted from appellant's specification, supra, appellant regards his invention to be **[*1238]** practicable only by inclusion of a cooling zone specially located.

n3 See, for example, *In re Garvin*, 55 CCPA 995, 392 F.2d 286, 157 USPQ 190 (1968), and the cases cited therein.

My position in this case does not stand as an isolated example of the application of § 112, second paragraph, as a basis for the rejection of claims as failing to particularly point out and distinctly **[**24]** claim the subject matter which the applicant regards as his invention. In *In re Prater*, 56 CCPA 1381, 415 F.2d

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1393, 162 USPQ 541 (1969) we affirmed the rejection of a claim which admittedly covered a purely mental process or a mental process coupled with pencil and paper. The Prater specification described the invention in terms of a machine or apparatus for carrying out the claimed process and, in fact, appellant's position on appeal was that the claims were not intended to embrace a purely mental process. The court thus concluded that

[inasmuch] as claim 9, thus interpreted, reads on subject matter for which appellants do not seek coverage, and therefore tacitly admit to be beyond that which "applicant regards as his invention," we feel that the claim fails to comply with 35 USC 112 [second paragraph] which requires that "[the] specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention." [Emphasis in original.]

I can find no substantive difference between Prater and the case we are now called upon to decide. In Prater, the court found in appellants' brief a [**25] statement of what appellants felt was their invention. This differed from the scope of the appealed process claim and the conclusion was reached that a rejection based upon the second paragraph of § 112 was proper. In the present case, a similar conclusion is reached based upon statements made in appellant's specification. There is nothing magical about where such information is derived.

I also note that I do not stand alone in my interpretation of the second paragraph of § 112. Of particular interest is *Henry J. Kaiser Co. v. McLouth Steel Corp.*, 257 F.Supp. 372, 150 USPQ 239 (E.D. Mich. 1966), aff'd sub nom. *Kaiser Industries Corp. v. McLouth Steel Corp.*, 400 F.2d 36, 158 USPQ 565 (6th Cir. 1968), cert. denied, 393 U.S. 1119, 160 USPQ 832 (1969) (hereafter McLouth).

The specification of the patent involved in the McLouth litigation described a process whereby steel was refined by using a high speed jet of pure oxygen directed vertically downwards onto a bath of molten metal, through an early-formed slag layer, in a manner so as to avoid deep penetration of the metal bath by the oxygen. The patent claims did not mention the avoidance of deep penetration. n4

n4 The claims read as follows:

1. Method of refining molten impure iron in the presence of a slag in a vessel having a refractory lining by blowing with oxygen, which comprises discharging a stream of oxygen vertically downwardly through the slag layer onto and below the surface of the bath at the central

portion thereof, to an extent to avoid material agitation of the bath by the oxygen stream, the contact of the oxygen with the bath resulting in reaction of the oxygen with a portion of the iron and with the oxidizable impurities of the bath in a localized reaction zone spaced a substantial distance from the refractory lining, the reactions in said zone resulting in refining of the iron and gas evolution and in the production of high temperature in the reaction zone away from the refractory lining, said reaction producing a circulatory movement in the molten metal, which circulatory movement brings those portions of the molten metal bath which are remote from the reaction zone into the reaction zone whereby those portions are subjected to said reaction with minimum injury to the refractory lining.

2. The gaseous oxygen process set forth in claim 1 in which the oxygen is blown into said vessel under pressure in a range between about five and about twenty-five atmospheres above normal atmospheric pressure. [**26]

The district court was faced with the issue of validity of the patent in suit. It decided that the patent was invalid inter alia because the claims did not particularly and distinctly claim the invention [*1239] described in the specification. This finding was specifically affirmed by the Sixth Circuit Court of Appeals. See 400 F.2d 50, 158 USPQ 579.

The district court noted at 158 F.Supp. 425, 150 USPQ 281, that:

The specification of the patent in suit teaches the avoidance of deep penetration as an essential characteristic of the process of the patent. * * * Further, plaintiffs in this litigation have repeatedly contended that the "new mental concept" that differentiates the invention of the patentees from the prior art Schwarz and Miles patents, and also the teachings of Dr. Durrer and Dr. Hellbruegge, was a reduction in impact pressure so as to avoid the deep penetration suggested by the prior teachings.

The court then expounded upon its understanding of the law in this area and concluded:

For a valid patent, Section 112 requires a statement of claim or claims which particularly point out and distinctly claim the subject matter which the applicants regard as [**27] their invention. In the instant case, the avoidance of deep penetration is clearly the subject matter which applicants regarded as their invention, and yet the concept of the avoidance of deep penetration simply cannot be read into the claims of the patent in suit. The language of the claims admittedly does not refer expressly to the avoidance of deep penetration of the bath by the jet * * *, nor can any language of the

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claims be construed to contain such a meaning.

An attempt was made to relitigate the same patent in the Third Circuit. *Kaiser Industries Corp. v. Jones & Laughlin Steel Corp.*, 181 USPQ 193 (W.D. Pa. 1974), rev'd, 515 F.2d 964, 185 USPQ 343 (3rd Cir. 1975). The district court refused to apply the Supreme Court's decision in *Blonder - Tongue* n5 and thus refused to rule that the plaintiff was collaterally estopped from asserting that its patent was valid. In reversing, the Third Circuit Court of Appeals stated at 515 F.2d 982, 185 USPQ 358:

n5 402 U.S. 313, 169 USPQ 513 (1971).

However, for purposes of collateral estoppel, we must accept the McLouth invalidation of the Sues patent based on the inadequacy of the claims under section 112, unless the Michigan [**28] court did not comprehend the case or, specifically, that issue. We do not find the Michigan decision so infirm. [Footnote 83a deleted.]

I also feel compelled to discuss our prior decision, *In re Conley*, 490 F.2d 972, 180 USPQ 454 (CCPA 1974). Conley dealt with a method of improving the handleability of a satin white-kaolinite paper coating pigment. Certain claims were rejected under the second paragraph of § 112 for their failure to recite operative proportions of the various ingredients. The board misread appellants' specification as allegedly describing the object of their invention as the production of an improved paper coating composition. The board noted that pigment concentrations outside certain limits fail to possess these improved characteristics and were thus indefinite.

We correctly reversed the board in Conley, citing *In re Borkowski*, supra, and related cases for the proposition that "[if] the scope of subject matter embraced by a claim is clear, and if the applicant has not otherwise indicated that he intends the claim to be of a different scope, then the claim does particularly point out and distinctly claim the subject matter which the applicant regards [**29] as his invention." Unfortunately, however, Conley contains certain dicta which is ambiguous and may, at first blush, seem contrary to my position in this case.

Although the board only affirmed the examiner's rejection under the second paragraph of § 112 for indefiniteness of claim language, we decided, in Conley, to discuss rejections based upon whether an applicant was claiming the subject matter which he regarded as his invention. [*1240] See 490 F.2d at 976, 180 USPQ at 456. The language we employed is worth quoting:

Occasionally the first sentence of the second paragraph of § 112 has been relied upon as a basis for rejection of a claim, not because of "indefiniteness" of the claim language but because the language used did not

particularly point out and distinctly claim the subject matter which the applicant regards as his invention. This portion of the statutory language has been relied upon in cases where some material submitted by applicant, other than his specification, shows that a claim does not correspond in scope with what he regards as his invention. *In re Prater*, 56 CCPA 1381, 415 F.2d 1393, 162 USPQ 541 (1969); *In re Cormany*, 476 F.2d 998, 177 USPQ 450 [**30] (CCPA 1973). There has been no reliance here on anything other than appellants' specification to suggest this as a basis for the second paragraph rejection made. [Emphasis in original. Footnote 3 deleted.]

The difficulty arises from the emphasized portion of the quoted language which seems to lead one to conclude that the specification cannot form the basis for the rejection of a claim under the second paragraph of § 112 for not particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Such a conclusion based upon Conley would be incorrect. The emphasized language is allegedly supported by the citation of two of our prior decisions: *In re Prater*, supra, and *In re Cormany*, 476 F.2d 998, 177 USPQ 450 (CCPA 1973). Cormany cited Prater and concluded that:

[Claim] 12 and the claims dependant thereon include within their scope the use in the composition of an amount of a nitroalkane as small as 0.5 weight percent. Appellants' affidavits make clear that this is not an "amount * * * large enough to stabilize" under the test conditions prescribed in these claims and that they do not regard it as within their invention. [**31] These claims, therefore, do not particularly point out and distinctly claim what appellants regard as their invention and do not comply with § 112, second paragraph.

Although Prater did not rely upon statements in appellants' specification for our affirmation of the second paragraph rejection, there was no indication in Prater that the specification could not be used in formulating such a rejection. n6

n6 I note with interest the following passage from Pat. L. Persp. § A-5[2][b]-23 (1974 Dev.):

It is well established that the Section 112 P2 requirement that the claims must particularly point out and distinctly claim the subject matter which the applicant regards as his invention is a requirement for "precision" and "definiteness." If the scope of the subject matter embraced by a claim is clear and if the applicant has not otherwise indicated that he intends the claim to be of a different scope, Section 112 P2 is satisfied.

527 F.2d 1229, *; 1976 CCPA LEXIS 202, **;

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In *In re Conley*, the CCPA has now further honed one of the two prongs of this test by holding that the evidence relied on by the examiner to demonstrate that the applicant has not claimed what he regards as his invention must be found outside the specification.

The court in *Conley* is correct in noting that in the cases where the issue has thus far arisen, the evidence relied on was outside the specification. Those cases did not, however, indicate that the proofs must be limited to such

outside evidence. And, needless to say, one must search in vain in the statute for any support for this judicial gloss. [Footnotes 49, 50 and 51 deleted.] **[**32]**

If *Conley* is the law in this area, the majority could not affirm a paragraph two rejection in the present case. I am of the view that we went astray in *Conley* and I am pleased that this appeal has presented a factual environment conducive to a discussion of this issue.