

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte DAVID E. RADTKE

Appeal 2007-2243
Application 10/249,018¹
Technology Center 1700

Decided: January 11, 2008

Before CAROL A. SPIEGEL, JEFFREY T. SMITH, and
MARK NAGUMO, *Administrative Patent Judges*.

NAGUMO, *Administrative Patent Judge*.

DECISION ON APPEAL

¹ "The 018 Application," filed 10 March 2003. The real party in interest is listed as Illinois Tool Works Inc. (Appeal Brief filed 9 November 2006 ("App. Br.") at 4.)

A. Introduction

Applicant Radtke appeals under 35 U.S.C. § 134 from the final rejection of claims 1–27, 29, and 30, which are all of the pending claims. We have jurisdiction under 35 U.S.C. § 6(b). We AFFIRM.

The subject matter on appeal relates to a hinge arrangement that allows a side panel of an enclosure, e.g., a welding machine enclosure, to be opened, removed, and in some embodiments held open at various angles. In embodiments, a hinge of the side panel engages the base of the enclosure via a slot.

Independent claims 1, 11, 20, and 29 are representative of the issues necessary to resolve this appeal. They read as follows (App. Br. Claims App.):

Claim 1:

A welding type machine comprising:

a base having at least one slot therein; and

an enclosure attached to the base having at least one removable side panel,

the at least one removable side panel constructed to removeably attach to the base for selective opening and closing and providing access to the inside of the enclosure,

the at least one side panel including:

first and second ends, and

at least one hinge attached to the first end,

the hinge insertable into the slot in the base and

arranged to allow removal of the side panel at an extraction angle and

retain the side panel to the base at angles other than the extraction angle.

Claim 11:

A welding apparatus comprising:

a base having a floor and first and second walls extending upwardly therefrom,

each wall having a horizontal ledge with a plurality of slots therethrough;

a welding power supply mounted to the base and configured to deliver electrical power at levels sufficient to weld metal; and

a plurality of side panels attached to the first and second walls of the base and a top cover coupled to the plurality of side panels to form an enclosure,

at least two of the plurality of side panels selectively removable from the base, each of the at least two side panels including:

first and second ends; and

at least one hinge tang spaced apart and integrally attached to the first end of each removable side panel, each hinge tang being insertable into a respective slot.

Claim 20:

A hinge arrangement for a welding-type enclosure comprising:

a base constructed to support a welding-type power supply;

a door panel having a hinge at one end engagable in a slot of the base, the hinge comprising:

a hinge portion that is generally perpendicular to the door panel;

a doorstop engagable with at least two portions of the base to define a maximum open position and a maximum closed position; and
a transition portion connecting the hinge portion of the doorstop.

Claim 29:

A welder-type enclosure comprising:

a base having a slot therein;
a movable door panel disengagable with the base; and
a means for allowing the movable door panel to open and close through a rotation point from a maximum open position to a maximum closed position and allowing complete removal of the movable door panel only at a position between the maximum open position and maximum closed position.

The Examiner has maintained the following rejections:

Claims 1–10, 20–27, 29, and 30 have been rejected under 35 U.S.C. § 112(2) for indefiniteness in reciting the terms "welding-type" machine, apparatus, or power supply, and "welder type enclosure." (Ans. at 3.)

Claims 1–27, 29, and 30 have been rejected under 35 U.S.C. § 103(a) in view of the combined teachings of Latvis² and Rosenthal³.

² Steven D. Latvis and Ross C. Borchardt, U.S. Patent No. 5,734,148, *Retention Means for Side Panels for Welding Machine*, issued 31 March 1998.

³ David J. Rosenthal et al., U.S. Patent No. 6,585,484 B2, *Pivotal and Removable Door for an Air Handler*, issued 1 July 2003, based on application 09/982,664, filed 18 October 2001.

B. Findings of Fact

The following findings of fact and any set out in the Discussion are supported by a preponderance of the evidence of record.

The 018 Specification

1. According to the specification, the invention relates generally to welding type machines. (018 Specification at 1, ¶ 1.)
2. In the words of the specification, a description of welding devices not only includes welders, but also includes any system that requires such enclosures and/or high power outputs, such as heating and cutting systems. Therefore, the present invention is equivalently applicable with any device requiring high power output, including welders, plasma cutters, induction heaters, and the like. Reference to welding power, welding-type power, or welders generally, includes welding, cutting, or heating power.
(018 Specification at 8, ¶ 37.)
3. Prior enclosures for welders are said to have employed hinged side panels that required "a great deal of space" between the welding-type machine and adjacent objects or building walls. (018 Specification at 1, ¶ 3.)
4. The invention is said to solve these problems by providing "[a]t least one side panel [that] is removably attached to the base for selectively opening and closing and providing access to the inside of the welding machine." (018 Specification at 2, ¶ 6.)
5. In the described embodiments, the hinges are formed by hinge tangs having a "generally S-shaped configuration," which are insertable into slots

7. A "doorstop" structure is described in the following words:

A doorstop **44** is arranged at a lower end of the hinge tang **38**. The doorstop **44** includes an open stop **46** and a closed stop **48**. The open stop **46** is generally perpendicular to the door panel **12**, and the closed stop **48** is generally parallel to the door panel **12**. The open stop **46** extends perpendicularly from the closed stop **48**. The doorstop **44** is connected to the hinge portion **42** via a transition portion **50** that is arranged generally at a 45 degree angle to the door panel **12**.

(018 Specification at 6, ¶ 28.)

8. The doorstop **44** is said to be connected to the hinge portion **42** via a transition portion **50** that is arranged generally at a 45 degree angle to the door panel **12**. (018 Specification at 6, ¶ 28.)

9. According to the 018 Specification, the doorstop **44** is engagable with two different portions of the base **14** to define the maximum open position and the maximum closed position. (018 Specification at 6, ¶ 29.)

Latvis

10. Latvis describes welding machine enclosures intended to overcome the requirement of prior art enclosures for "a great deal of space between the welding machine and any adjacent objects or building walls." (Latvis at 1:28-30.)

11. To remedy this deficiency, Latvis provides self-contained welding machines having removably closable vibration proof side panels "that require minimal space for installation and removal." (Latvis at 2:65–3:1.)

12. Latvis describes a welding machine with respect to Figure 3, which we do not find necessary to reproduce here, having a base **3**, side walls **31** and **33**, the tops of which are bent to form horizontal ledges **39** and **43**,

respectively, which terminate in short vertical lips **41** and **45**. (Latvis at 3:6-10.)

13. On horizontal ledges **39** and **43**, at the base of vertical lips **41** and **45**, are multiple slots, **47** and **49**, and **43** and **44**, respectively. (Latvis at 3:11-15.)

14. According to Latvis, side panels **23** are provided with clips **69** that register with slots **44** in base **3** (Latvis at 3:36–38) and fasteners (Latvis at 3:58-60) provide restoring forces to keep the side panels in place (Latvis at 3:15-62).

15. Latvis describes the installation and removal of side panels **23** as an essentially vertical motion. (Latvis at 3:64–67.)

Rosenthal

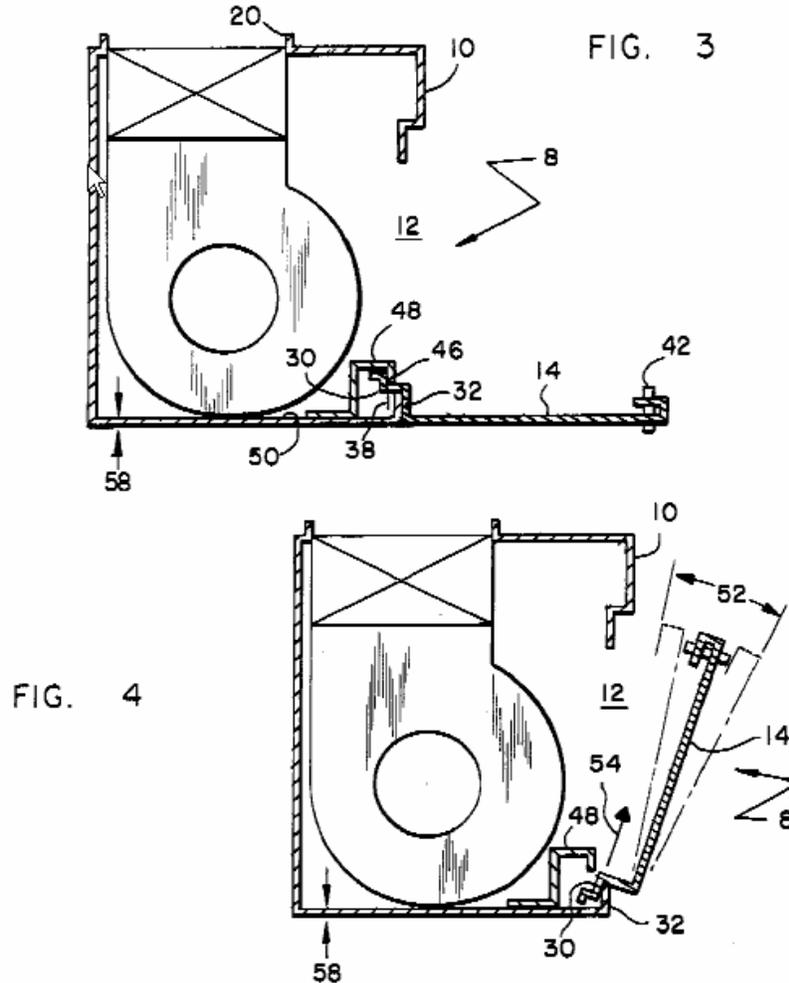
16. Rosenthal describes an air-handler enclosure **10** that has an opening **12** that is closed by a removable pivotal door panel **14**.

17. According to Rosenthal, the pivotal and removable door has "an intermediate open position where the panel can be completely disengaged from the enclosure." (Rosenthal at 1:43–45; *see also* Rosenthal Figure 4.)

18. Pivotal door panel **14** releasably engages a pivoting and securing structure in the enclosure **10** via a four-fold alternately bent flange (arbitrarily labeled (+) and (-) in the following description).

19. The pivoting and securing structure is illustrated in Rosenthal Figures 3 and 4, shown below:

{Rosenthal Figures 3 and 4 are shown below:}



{Rosenthal Figures 3 and 4 are said to show the pivoting door of an air handler}

20. Starting from the main panel 14, the first (+) 90° bend provides a surface parallel to the flange 32 of the lower peripheral edge of opening 12 when the door is fully open.

21. The second (-) 90° bend provides a surface parallel to the main panel 14.

22. The third (+) 90° and fourth (-) 90° bends provides a surface **46** that engages a catch **48**, which extends upwards from a bottom surface **50** of enclosure **10**, when the panel is fully open, as shown in Figure 3.

The Examiner's Rejections⁵

23. The Examiner rejected claims 1–10, 20–27, 29, and 30 as indefinite under 35 U.S.C. § 112(2), holding that the terms "welding type machine" (claims 1–10), "welding-type enclosure" (claims 20 [to 27]), "welding-type power supply" (claims 20 [to 27]), "welder-type enclosure" (claims 29 and 30), and "welding-type" power (claim 30) are indefinite on the grounds that the term "type" is not defined in the specification and that the claim scope is therefore unascertainable. (Ans. at 3, bracketed text added.)

24. The Examiner rejected claims 1–27, 29, and 30 under 35 U.S.C. § 103(a) in view of the combined teachings of Latvis and Rosenthal. (Ans. at 4.)

25. The Examiner found that Latvis disclosed a welding cabinet meeting all the limitations of the claimed subject matter but for the substructures of the hinge arrangements. (Ans. at 5.)

26. The Examiner found that Rosenthal disclosed a pivotal door assembly for an air handler or similar device that was removable at some angles between a fully open or fully closed position and that met all the structural and functional properties required by the claimed subject matter. (Ans. at 5.)

⁵ See the Examiner's Answer mailed 18 January 2007 ("Ans.").

27. The Examiner held that one of ordinary skill in the art would have modified the enclosure and access panels taught by Latvis to take advantage of the hinge arrangement taught by Rosenthal. (Ans. at 5–6.)

Radtke's Rebuttal⁶

28. Radtke argues that the Examiner has applied a per se rule of indefiniteness to the use of the term "type" as it occurs in the claims, and that the description in the specification at ¶ 37 (quoted *supra* at FF 2) provides adequate guidance to those of ordinary skill in the art. (App. Br. at 6-7.)

29. With regards to the rejections for obviousness, Radtke argues that the Examiner erred first by failing to establish a motivation to combine the references, which, Radtke maintains, are not in the same art. (App. Br. at 8.)

30. Moreover, according to Radtke, the combination is improper because the teachings of Rosenthal are contrary to the teachings of Latvis. (App. Br. at 8.)

31. Along the same lines, Radtke urges that there is no reasonable expectation of successfully combining the air handler door taught by Rosenthal with the welding enclosure assembly taught by Latvis because the combination would be unsuited for the purpose intended by Latvis. (App. Br. at 10-12.)

32. Finally, Radtke finds that the references do not describe all of the elements recited in the claims. (App. Br. at 12–14.)

33. Radtke directs these arguments solely at the independent claims.

⁶ Appeal Brief filed 9 November 2006 ("App. Br.").

34. With regard to claims 1 and 29, Radtke urges that Latvis does not provide for side panels that can be "selectively opened or closed" because the Latvis panels can only be removed. (App. Br. at 12 and at 14.)

35. Radtke argues further that because the combination with Rosenthal is improper, the subject matter of claim 1 and its dependent claims are distinguished over the prior art. (App. Br. at 12–13 and at 14.)

36. With regard to claim 11, Radtke argues that claim 11 requires that "the side panels include a first end with at least one generally S-shaped hinge tang that is insertable into the slot of a base." (App. Br. at 13.)

37. Radtke finds that Rosenthal does not disclose an S-shaped tang, and argues that the Examiner's rejection must therefore be reversed. (App. Br. at 13.)

38. With regard to claim 20, Radtke argues that the Examiner's rejection must be reversed because Rosenthal fails to disclose "a hinge having a transition portion connecting a perpendicular hinge portion to a doorstop, as called for in claim 20." (App. Br. at 13.)

39. According to Radtke, in Rosenthal's hinge, "the peripheral edge 34 is connected directly to lip 30, without the presence of a transition portion." (App. Br. at 13–14.)

40. Radtke does not direct our attention to a definition of a "transition portion" in this context in the specification or within the general knowledge of those of ordinary skill in the art.

C. Discussion

On appeal, the initial procedural burden is on the Applicant to demonstrate reversible error in the Examiner's rejections. Arguments which Applicant could have made but chose not to make in the principal brief are deemed to have been waived. 37 C.F.R. § 41.37(c)(1)(vii).

Indefiniteness

The Examiner has rejected claims 1–10, 20-27, 29, and 30 as indefinite in the term "type," on the grounds that the scope of the claims cannot be ascertained. (Ans. at 3.)

The Federal Circuit has explained that "[i]f [a] claim is subject to construction, i.e., it is not insolubly ambiguous, it is not invalid for indefiniteness." *Bancorp Services, L.L.C. v. Hartford Life Insurance Co.*, 359 F.3d 1367, 1371 (Fed. Cir. 2005) (citations omitted.) The court has explained further that "[d]etermining whether a claim is definite requires an analysis of 'whether one skilled in the art would understand the bounds of the claim when read in light of the specification. If the claims read in light of the specification reasonably apprise those skilled in the art of the scope of the invention, § 112 demands no more.'" *Personalized Media Communications, LLC v. ITC*, 161 F.3d 696, 705 (Fed. Cir. 1998) (internal quotation marks and citations omitted).

We begin by considering the claims themselves. The terms "welding-type machine" (claim 1), "welding-type enclosure," and "welder-type enclosure" (claims 29, 30) occur in the preambles of the claims. A preamble is not accorded significant weight in the definition of claimed subject matter to the extent that it is merely a nametag or label for the subject matter

defined by the limitations recited in the body of the claims. It is only when terms in the preamble "give life and meaning to the claim" that they are given patentable weight. *Bristol-Myers Squibb Co. v. Ben Venue Labs. Inc.*, 246 F.3d 1368, 1373–74 (Fed. Cir. 2001) ("If the body of the claim sets out the complete invention, and the preamble is not necessary to give 'life, meaning and vitality' to the claim, 'then the preamble is of no significance to claim construction because it cannot be said to constitute or explain a claim limitation.' *Pitney Bowes, Inc. v. Hewlett Packard Co.*, 182 F.3d 1298, 1305 (Fed. Cir. 1999)."). In the present case, the Examiner has not directed our attention to any limitations recited in the body of the claims that refer back to the preamble or rely on the preamble in such a way that the preamble terms constitute or explain any of the subsequent limitations.

Nor has the Examiner explained how the term "welding-type power supply," which occurs in the body of claim 20 as a limitation on the base of the enclosure, or how the term "welding-type power," which occurs in the body of claim 30 as a limitation on the "welding-type enclosure," are "insolubly indefinite."

It is hornbook patent law that breadth is not indefiniteness. *In re Gardner*, 427 F.2d 786, 788 (CCPA 1970). It is also hornbook patent law that during patent examination "the PTO applies to the verbiage of the 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 1048, 1054 (Fed. Cir. 1997).

Considering the plain language of claim 20, we conclude, on the present record, that the recited base, which is part of the claimed "hinge arrangement," must be substantial enough to support a power supply capable of "welding." Claim 20, unlike claim 11, does not specify what sorts of materials are to be welded. We shall not read limitations from the specifications into the claims. *Johnson Worldwide Assoc., Inc. v. Zeeco Corp.*, 175 F.3d 985, 992 (Fed. Cir. 1999) ("mere inferences drawn from the description of an embodiment of the invention cannot serve to limit claim terms"). Similarly, claims 29 and 30 do not specify any sort of material that must be welded. Accordingly, we conclude that as long as a given power supply can provide enough power to weld any sort of material, the "welding-type power" and "welding-type power supply" limitations are met.

The Examiner's rejections of claims 1–10, 20-27, 29, and 30 as indefinite are REVERSED.

Obviousness

The Examiner found that Latvis describes a welding enclosure meeting all the limitations of the claimed subject matter but for the substructures of the hinge arrangements. The Examiner found further that Rosenthal teaches structures of the hinge units meeting those limitations in Radtke's claims. The Examiner then held claims 1–27, 29, and 30 unpatentable under 35 U.S.C. § 103(a) in view of the combined teachings of Latvis and Rosenthal. (Ans. at 4.)

Radtke's argument that the Examiner failed to establish motivation to combine the references because the references are not both in the same art (welding) is misplaced. The relevant art relates to enclosures for machinery,

the enclosures having panels that can be opened and removed. Moreover, as we held *supra*, the nature of the machinery is not narrowly specified. But air handlers can contain motors of significant power, so even if such limitations were significant in these claims, we have no doubt that the ordinarily skilled mechanic concerned particularly with enclosures for welding machinery would look to a wide variety of enclosures, including enclosures for air handlers such as those described by Rosenthal.

Radtke's argument that the Examiner's rejection fails for lack of a reasonable expectation of success is based on a similar failure to appreciate the scope of the claimed subject matter. Latvis is concerned to an extent with problems of access panels for machinery situated in tight quarters. (*See, e.g.*, Latvis at 1:28–30; FF 10.) One of ordinary skill in the relevant art would have considered Rosenthal's teachings of pivoting panels that can be removed at fairly steep angles (*see, e.g.*, Figure 4, shown *supra* at FF 19) to provide a reasonable expectation of successfully modifying the panels and enclosures taught by Latvis and obtaining panels selectively removable in tight quarters.

Except for arguing that Latvis does not teach the "selectively opened or closed" requirement, Radtke does not contest the Examiner's findings that Latvis teaches all claim limitations but for the hinge structures. In particular, Radtke argues that because the panels of Latvis can only be removed, they cannot be "selectively opened or closed." (FF 34; App. Br. at 12–13 and at 14.) This argument is misplaced because Rosenthal teaches panels that can be opened and closed, and we have determined that Radtke has failed to show that the teachings of Latvis and Rosenthal have been combined improperly. Attacks on a conclusion of obviousness cannot be

sustained by attacks on the references individually. *In re Keller*, 642 F.2d 413, 426 (CCPA 1981).

Radtke urges that claim 11 requires an S-shaped hinge tang, and that because the hinge tangs taught by Rosenthal are not S-shaped, the Examiner's rejection fails. (App. Br. at 13.) A review of the plain language of claim 11, which is reproduced *supra*, shows it contains no express "S-shaped" limitation on the hinge tangs. Radtke has not explained, nor is it apparent, that such a limitation is required by the claim language. Although arguably S-shaped hinge tangs may be described in the specification, we shall not read limitations from the specification into the claims. *Johnson*, 175 F.3d at 992.

Finally, Radtke argues that Rosenthal does not disclose a "hinge having a transition portion connecting a perpendicular hinge portion to a doorstep, as called for in claim 20." (App. Br. at 13.) Instead, according to Radtke, Rosenthal teaches a hinge in which "the peripheral edge 34 is connected directly to lip 30, without the presence of a transition portion." (App. Br. at 13-14.) This argument is not persuasive because claim 20 requires only the presence of "a transition portion connecting the hinge portion of the doorstep." The claim does not recite what the hinge portion must be connected to via the transition portion. Moreover, Radtke has not directed our attention to any definition of the term "transition portion" in the specification. We have noted the description of a transition portion **50** in Figure 6 of Radtke's specification (FF 7), but, as our reviewing court has instructed, "mere inferences drawn from the description of an embodiment of the invention cannot serve to limit claim terms." *Johnson*, 175 F.3d at 992. Moreover, read broadly, any two distinct structures are connected by

a "transition portion," even if that portion is a mere connection or weld. In any event, the "doorstop" appears to be met by the structure labeled **46** in Rosenthal Figure 3 (FF 19). The Rosenthal hinge portion that is "generally perpendicular to the panel" and thus corresponds structurally and functionally to Radtke structure **42** (Radtke Figure 5) is connected to doorstop **46** by the segment labeled **38** in Rosenthal Figure 5 (not shown here). Thus, that segment **38** is a "transition portion" within the meaning of claim 20.

We have found none of Radtke's assessments of Examiner error persuasive. Accordingly, we AFFIRM the Examiner's rejections of claims 1–27, 29, and 30 as obvious in view of the combined teachings of Latvis and Rosenthal.

E. Summary

In view of the foregoing considerations, it is

ORDERED that the rejection of claims 1–10, 20–27, 29, and 30 under 35 U.S.C. § 112(2) is REVERSED;

FURTHER ORDERED that the rejection of claims 1–27, 29, and 30 under 35 U.S.C. § 103(a) in view of the combined teachings of Latvis and Rosenthal is AFFIRMED.

FURTHER ORDERED that 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

Appeal 2007-2243
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