

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 THERESA CHIH-LEI MIAO SPEAR
and GEORGE DARYL BLANKENSHIP

Appeal 2006-2619
Application 10/935,566
Technology Center 1725

Decided: August 31, 2006

Before WARREN, WALTZ, and FRANKLIN, *Administrative Patent Judges*.

WARREN, *Administrative Patent Judge*.

DECISION ON APPEAL

This is an appeal under 35 U.S.C. § 134 from the decision of the examiner finally rejecting claims 1 through 3, 8 through 10 and 17 through 21, and refusing to allow claims 4 through 7 and 11 through 16 as amended subsequent to the final rejection. Claims 1 through 21 are all of the claims in the application.

Claims 1 and 11 illustrate Appellants' invention of a system that facilitates configuring a welder power supply during a welding procedure, and are representative of the claims on appeal:

1. A system that facilitates configuring a welder power supply during a welding procedure comprising:

a component that receives a welding parameter; and

a configuration component that automatically applies a welder configuration to the welder power supply based at least upon the welding parameter.

11. A system that facilitates configuring a welder power supply during a welding procedure comprising:

a communications component that receives information from a remote system, the information comprising at least one of a welder configuration and a welding parameter;

an analyzer that determines the welder configuration to employ, based at least in part upon the received information; and

a configuration component that applies the welder configuration to the welder power supply.

The references relied on by the examiner are:

Beiermann	US 6,479,792 B1	Nov. 12, 2002
Hayes	US 6,504,131 B1	Jan. 7, 2003
Niedereder	US 6,797,921	Sep. 28, 2004

The examiner has rejected appealed claims 1 through 21 under 35 U.S.C. § 103(a) as being unpatentable over Niedereder taken with either one of Beiermann or Hayes (Answer 3-6).

Appellants principally argue independent claim 1 as representative of the claims as a group and further argue independent claim 11 (Br. 5 and 8; Reply Br. 2). Thus, we decide this appeal based on appealed claim 1 and, to the extent it is argued, claim 11. 37 CFR § 41.37(c)(1)(vii) (2005).

We affirm.

We refer to the Answer and to the Brief and Reply Brief for a complete exposition of the positions advanced by the Examiner and Appellants.

OPINION

We have carefully reviewed the record on this appeal and based thereon find ourselves in agreement with the supported position advanced by the Examiner that, *prima facie*, the claimed system that facilitates configuring a welder power supply during a welding procedure encompassed by appealed claims 1 and 11 would have been obvious over the combined teachings of Niedereder, Beiermann, and Hayes to one of ordinary skill in this art at the time the claimed invention was made. Accordingly, since a *prima facie* case of obviousness has been established by the examiner, we again evaluate all of the evidence of obviousness and nonobviousness based on the record as a whole, giving due consideration to the weight of Appellants' arguments in the Brief and Reply Brief. *See generally, In re Oetiker*, 977 F.2d 1443, 1445, 24 USPQ2d 1443, 1444 (Fed. Cir. 1992); *In re Piasecki*, 745 F.2d 1468, 1472, 223 USPQ 785, 788 (Fed. Cir. 1984).

The principal issues before us require that we interpret claim 1 by giving the terms thereof the broadest reasonable interpretation in their ordinary usage in context as they would be understood by one of ordinary skill in the art, in light of the written description in the specification unless another meaning is intended by Appellants as established therein, and without reading into the claim any disclosed limitation or particular embodiment. *See, e.g., In re Am. Acad. of Sci. Tech. Ctr.*, 367 F.3d 1359,

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1364, 70 USPQ2d 1827, 1830 (Fed. Cir. 2004); *In re Morris*, 127 F.3d 1048, 1054-55, 44 USPQ2d 1023, 1027 (Fed. Cir. 1997); *In re Zletz*, 893 F.2d 319, 321-22, 13 USPQ2d 1320, 1322 (Fed. Cir. 1989).

The plain language of claim 1 requires any manner of system of components that facilitates in any manner the configuration to any extent of any of the parts and elements of any manner of welder power supply during any manner of welding procedure. Appellants define the term “welding procedure” in the written description in the specification as “[referring] to a step or steps involved in a joining process and can include consumables to be used in the process along with settings for various aspects of a welding system before, during and/or after the joining process” (Specification 5: [0025]). Appellants illustrate this term with the language “[f]or example, some of these aspects relate to control of power and waveforms supplied to an electrode” (*id.*).

The system thus specified in claim 1 comprises at least any manner of component that receives any manner of welding parameter, such as any manner of power or waveform settings, and any manner of a configuration component that automatically, that is, without external control, provides any manner of configuration to the power supply based at least to some extent on said welding parameter. In this respect, Appellants define the term “component” in the written description in the specification as “[referring] to a [sic] electronic and/or computer-related entity, either hardware, a combination of hardware and software, software, or software in execution” (Specification 4: [0023]).

Claim 11 is couched in the same preambular terms as well as the term “component.” This claim specifies that the component which receives “welding parameter” information does so “from a remote system,” and that the information received from the remote system is not so limited but comprises “at least one of a welder configuration and a welding parameter.” The specified any “analyzer” has the function of determining “the welder configuration to employ” based on such information, but the claim language specifies that the “communication component” can receive a “welder configuration” which is the same term used to define the configuration applied to the welder power supply by the “configuration component.” Thus, the function of the “analyzer” in this respect is unclear.¹ In any event, the “analyzer” and the “configuration component” can be the same system “component” as Appellants have defined this term in the specification.

Thus, we interpret the claim language to encompass any system which facilitates any step in configuring any part or element of any manner of welder power supply at any point in a joining process, including any initial step such as boot up, in configuring the power supply with respect to the

¹ The inconsistency with respect to the “welding configuration” received by the “communication component” and the processing thereof by the “analyzer” component and further by the “configuration component” raises issues under 35 U.S.C. § 112, second paragraph, with respect to appealed claim 11. However, we determine that a reasonable, *conditional* interpretation of the claim language is that claim 11 further encompasses processing “a welding parameter” received from “a remote system,” and we consider claim 11 in this respect in order to resolve prior art issues in this appeal, thus avoiding piecemeal prosecution. *Cf. In re Steele*, 305 F.2d 859, 862-63, 134 USPQ 292, 295 (CCPA 1962); *Ex parte Saceman*, 27 USPQ2d 1472, 1474 (Bd. Pat. App. & Int. 1993).

power and waveforms to be supplied to an electrode before the system executes the actual joining step, and which comprises at least hardware, software, or a combination of the two as the specified components which receive any manner of welding parameter and automatically applies any manner of configuration to any part or element of the welder supply system based at least on that welding parameter. The term “comprising” used in transition as well as in the body of the claims, of course, opens the claims to encompass any system that contains any manner of additional component(s) and types of received information. *See generally, Vehicular Technologies Corp. v. Titan Wheel Int’l Inc.*, 212 F.3d 1377, 1383, 54 USPQ2d 1841, 1845 (Fed. Cir. 2000); *Genentech Inc. v. Chiron Corp.*, 112 F.3d 4954, 501, 42 USPQ2d 1608, 1613 (Fed. Cir. 1997); *In re Baxter*, 656 F.2d 679, 686, 210 USPQ 795, 802 (CCPA 1981).

There is substantially no dispute that the welding system disclosed by Niedereeder comprises at least the components specified in appealed claim 1 as the examiner contends. Indeed, Appellants admit that the system of the reference can “configure other devices attached to a network based at least upon a welding parameter” (Br., e.g., 5: 11-12; 7: 21-22; Reply Br., e.g., 3:15-16). Even so, Appellants contend that Niedereeder would not have disclosed “an analyzer” as specified in claim 11. Appellants have not informed us why this is so, and the Examiner has not pointed to a component of Niedereeder’s system which would have been recognized by one of ordinary skill in the art as capable of performing the claimed function of this component.

In any event, the Examiner contends that one of ordinary skill in the art reading Niedereder would have recognized in considering the reference that “the general teaching . . . to configure a welding system . . . would include configuring a power supply,” and argues that this person would have known that it was “conventional to use a computer network to configure a power supply in a welding system” as established by the teachings of Beiermann and Hayes (Answer 4).

Appellants submit that Niedereder “does not teach or suggest communication with or configuration of a welder power supply, let alone such configuration being based upon the welding parameter” as claimed (Br., e.g., 5:12-14; 7: 22-23; Reply Br., e.g., 3: 15-16). Appellants contend that

[t]he claimed subject matter relates generally to an architecture that facilitates applying a welder configuration to a welder power supply during a welding procedure. More specifically, the architecture can, e.g., configure a welding power supply to perform more than one welding task. For example, if a first welding procedure requires a different welder power supply configuration than a second welding procedure, the architecture can select a new configuration and update the welder power supply with the new configuration during a welding procedure. . . . In addition, the architecture can analyze, e.g., a welding parameter and then determine which welder configuration (e.g., selected the welder configurations in the store) to employ for a particular welding procedure. [Reply Br. 2-3.]

In this respect, Appellants argue that appealed independent claim 11 requires “an analyzer that determines the welder configuration to employ, based at least in part upon the received information” (*id.* 3).

Appellants argue that Beiermann and Hayes do not cure the deficiency of Niedereder (Br. 5-8). According to Appellants, “[Beiermann] is silent

regarding a welder power supply” and thus would not have disclosed configuring such a supply, only “configuring a remote user interface to allow remote operation of the machine by a user (see col. 6, ll. 16-23),” arguing that “configuring a remote user interface to allow remote access is not the same as configuring a *power supply*” or as “configuring the power supply automatically” (Br. 5-6). Hayes is said to “[relate] to a welding-type power supply with a boot loader, wherein the boot loader, at power up, can access a network to check for and load software updates” (*id.* 6). We noted above Appellants’ contention with respect to the “analyzer component” of claim 11.

The Examiner maintains that Beiermann would have disclosed that operational parameters of a welding machine include voltage and current settings, which indicates a “power supply,” the disclosed “‘wave-form signature’ would apply . . . [to] the welding power supply” and the disclosed effect thereon by software clearly establishes that “the networked computer in [Beiermann] is configuring the power supply” (Answer 5-6). The Examiner further points out that Hayes would have disclosed that welding system **100** “includes a power control module 102” as a source of welding-type power (*id.* 6).

We find substantial evidence in the record supporting the examiner’s position. We find that Niedereder would have acknowledged that “[m]ethods of controlling welding devices and current sources as well as a control system needed for this purpose are known, in which various welding parameters such as a welding current . . . can be set from an input and/or output device” and that a purpose of the invention disclosed in the reference

is the remote operation of a welding device (Niedereder, col. 1, ll. 51-63). Thus, we find that one of ordinary skill in this art would have considered the disclosure of the reference in the context of a welding device which includes, among other components, “a welding current” source, that is, a welding power supply. In this respect, Niedereder would have disclosed to this person that the “[t]he invention related to a welding device having a current source” and other components including “a control and evaluation unit” and “a communication interface,” wherein the “system is that data can be forwarded to the welding device from a remote site” (Niedereder, e.g., col. 1, l. 66, to col. 2, l. 61).

Indeed, the system can be used in “a method of operating a welding device wherein this method includes the steps of controlling an energy source via a control or evaluation unit to apply electrical energy to at least one electrode,” wherein the “control and evaluation unit can process software modules and operates on the basis of a pre-set set of instructions and any specific settings entered” to configure the energy source (Niedereder, col. 4, l. 66, to col. 5, l. 19). We find that Niedereder further would have disclosed with respect to **Fig. 1**, a “welding device **1** [comprising] a current source **2** with a power component **3**, a control and/or evaluation unit **4**,” and that “the current needed to generate an arc **15** between the welding wire **13** and a workpiece **16** is fed via supply line **17**, **18** from the power component **3** of the current source **2** to the welding torch **10** and the welding wire **13**” (Niedereder, col. 6, ll. 29-49; see also col. 9, ll. 49-64). In this respect, input and/or output device **22** can be used to set a range of welding parameters and operating modes which are forwarded to

control and/or evaluation unit **4** to activate individual components of welding device **1** (Niedereder, col. 7, ll. 5-15).

We further agree with the Examiner's findings with respect to the teachings of Beiermann (Beiermann, e.g., col. 3, ll. 38-43, and col. 5, l. 66, to col. 7, l. 3) and Hayes (Hayes, e.g., abstract, col. 1, ll. 14-17, col. 2, ll. 6-10, col. 3, l. 55, to col. 4, l. 3, and col. 4, ll. 20-44).

Thus, contrary to Appellants' position, it is well established on this record by Niedereder alone, and certainly as further evinced by Beiermann and Hayes, that one of ordinary skill in this art armed with the knowledge in this art would have considered that a method and system for controlling a welding device includes a power supply and thus, this person would have reasonably considered the disclosure in Niedereder which we pointed out above to disclose such a system with components for controlling such any welding device including its power supply. Indeed, it is well settled that a reference stands for all of the specific teachings thereof as well as the inferences one of ordinary skill in this art would have reasonably been expected to draw therefrom, *see In re Fritch*, 972 F.2d 1260, 1264-65, 23 USPQ2d 1780, 1782-83 (Fed. Cir. 1992); *In re Preda*, 401 F.2d 825, 826, 159 USPQ 342, 344 (CCPA 1968), presuming skill on the part of this person. *In re Sovish*, 769 F.2d 738, 743, 226 USPQ 771, 774 (Fed. Cir. 1985). In this respect, we find that the input and/or output device **22** and control and/or evaluation unit **4** components of Niedereder's system correspond to the two components specified in claim 1, and the three components specified in claim 11, as we interpreted these claims above.

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Appellants' contentions with respect to the teaching of both Beiermann and Hayes are misplaced as indeed, claims 1 and 11 do not exclude either a remote user interface or a boot up step in a software program for controlling a welding procedure, and indeed, claim 11 specifically provides for the former.

Accordingly, based on our consideration of the totality of the record before us, we have weighed the evidence of obviousness found in the combined teachings of Niedereder, Beiermann, and Hayes with Appellants' countervailing evidence of and argument for nonobviousness and conclude that the claimed invention encompassed by appealed claims 1 through 21 would have been obvious as a matter of law under 35 U.S.C. § 103(a).

The Examiner's decision is affirmed.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 CFR § 1.136(a)(1)(iv) (2005).

AFFIRMED

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Amin, Turocy & Calvin, LLP
1900 East 9TH Street, National City Center
24TH Floor
Cleveland, OH 44114