

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte ECKART GOETZ, DIETER STELLWAG,
HEINZ-ULLRICH MUELLER, and REINHARD SCHOLZ

Appeal 2008-1690
Application 10/936,194
Technology Center 1700

Decided: February 29, 2008

Before CHARLES F. WARREN, LINDA M. GAUDETTE, and
MICHAEL P. COLAIANNI, *Administrative Patent Judges*.

COLAIANNI, *Administrative Patent Judge*.

DECISION ON APPEAL

Appellants appeal under 35 U.S.C. § 134 the final rejection of claims 1-7. We have jurisdiction over the appeal pursuant to 35 U.S.C. § 6(b).

We AFFIRM.

INTRODUCTION

Appellants disclose an apparatus for resistance welding which has a simple construction and provides a fast communication to the components, so that the welding apparatus is dynamically optimized and the welding quality is increased (Spec. 5). The claim 1 apparatus has, in relevant part, a welding convertor, a welding process control, an energy supply system and a servotong control forming “a unitary, structural unit” (claim 1). The “unitary, structural unit” claim feature is disclosed as being an important feature that reduces mounting expenses of the various components, reduces the cost, and reduces the complexity and interference sensitivity of the communication system (Spec. 6).

Claims 1, 2, and 3 are illustrative:

1. An apparatus for resistance welding with a welding system, comprising [*sic*] an energy supply system; a welding convertor; a welding process control; a servowelding tong; a servotong control, wherein said welding convertor, said welding process control, said energy supply system and said servotong control together form a unitary, structural unit.

2. An apparatus for resistance welding with a welding system, comprising [*sic*] an energy supply system; a welding convertor; a welding process control; a servowelding tong; a servotong control, wherein said energy supply system of said welding convertor is formed so that it is also used for supplying electrical energy to said servotong control, wherein said welding convertor, said welding process control, said energy supply system and said servotong control together form a unitary, structural unit.

3. An apparatus for resistance welding with a welding system, comprising [*sic*] an energy supply system; a welding convertor; a welding process control; a servowelding tong; a servotong control, wherein said energy supply system of a logic circuit of said welding convertor is formed so that it is also used for energy supply of a control of said servotong control and said welding process control, wherein said welding convertor, said

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welding process control, said energy supply system and said servotong control together form a unitary, structural unit.

The Examiner relies on the following prior art references as evidence of unpatentability:

Takano	US 5,945,011	Aug. 31, 1999
Suita	US 6,004,019	Dec. 21, 1999

The rejection as presented by the Examiner is as follows:

1. Claims 1-7 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Takano in view of Suita.

The Examiner finds that Takano's welding apparatus forms a unitary, structural unit possessing all the claim features except an energy supply system (Ans. 4-5). The Examiner finds that Suita discloses a welding apparatus that includes an energy supply unit that forms a "unitary, structural unit" with the welding apparatus via its physical connection with the welding apparatus (Ans. 5). The Examiner concludes that it would have been obvious to use Suita's energy supply unit with Takano's welding apparatus in view of Suita's disclosure that it is useful to power the various components of a welding robot system via a common energy supply source (Ans. 5).

Appellants separately argue independent claims 1, 2, and 3.

OPINION

CLAIM 1

Appellants argue that the Suita does not disclose that the energy supply forms a "unitary, structural unit" with the welding convertor, the

welding process control, and the servotong control (i.e., the unitary, structural claim feature) (Br. 5). Appellants argue that there is no suggestion (i.e., motivation) for such a “unitary, structural unit” claim feature from Takano in view of Saito either taken singly or as a combination (Br. 5-6). Appellants also argue that the claimed apparatus produces advantages (i.e., unexpected results) (Br. 5).

We have considered all of Appellants’ arguments and are unpersuaded for the reasons below.

The primary issue in this appeal is the construction of the claim phrase “unitary, structural unit.” The Examiner construes “unitary, structural unit” as requiring only a physical connection between the energy supply and the various other components (Ans. 5). The Examiner further indicates that “[n]o matter how this physical connection is made, it constitutes a structural unity comprised of the energy source and the circuitry connected thereto” (Ans. 5).

During examination, claim terms are given their broadest reasonable interpretation consistent with the Specification. *In re Am. Acad. of Sci. Tech Ctr.*, 367 F.3d 1359, 1364 (Fed. Cir. 2004). The Patent and Trademark Office applies to the claim terms 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).

Appellants have not defined what is meant by a “unitary, structural unit” in their Specification. Accordingly, the broadest reasonable

interpretation of “unitary, structural unit” includes having the various components physically connected to one another by any means (e.g., cables). As the Examiner correctly indicates, no matter how the physical connection is made, such a connection structurally unites the various components. Accordingly, we adopt the Examiner’s construction of the claim phrase “unitary, structural unit” as our own.

Appellants do not dispute the Examiner’s findings regarding Takano’s disclosure of the various claimed components united together on a circuit board or Suita’s disclosure of an energy supply (Br. 5). In fact, Appellants indicate that it is logical to provide an energy supply system to electronics and that Suita discloses such an energy supply (Br. 5). Accordingly, we adopt the Examiner’s findings regarding Takano’s and Suita’s disclosures as our own.

Rather, Appellants’ arguments are directed to whether Takano and Suita teach or suggest forming the energy supply system as a “unitary, structural unit” with the various other claimed components (Br. 5). In that regard, we focus on the disclosure of Suita which the Examiner cited as disclosing the energy supply.

Suita discloses having an energy supply CPU and other control CPUs integrated together via a system bus 7 (Suita, col. 1, ll. 61-67, col. 2, ll. 1-25, and col. 4, ll. 3-4). Suita shows in Figure 1, that the energy supply 8 is attached to the other components (i.e., the energy supply is shown in a dashed-line box that is connected to the solid-line box containing the other components of the welding device) (Suita, Figure 1). Suita further discloses that the energy supply unit 8 operates in accordance with commands from the energy control CPU to provide electrical power to the welding apparatus

(Suita, col. 3, ll. 54-60). Suita also discloses that connecting the various components of the welding apparatus together as shown in Suita's Figure 1, provides a system for quick transmission of information, a greater resistance to external noise, and a more compact and light structure (Suita, col. 2, ll. 5-19).

Based on the above claim construction of the claim phrase "unitary, structural unit," we find that Suita discloses an energy supply unit 8 that is a "unitary, structural unit" with the welding apparatus as claimed. Irrespective of how Suita connects the energy supply unit 8 to the welding apparatus (i.e., cables or attaching it to the welding apparatus as appears to be the case with the dashed line of Figure 1 surrounding the unit), such would be a physical connection of the energy supply unit 8 to the rest welding apparatus so as to form a "unitary, structural unit" therewith. Therefore, contrary to Appellants' argument, we find that Suita discloses the argued claim feature.

Contrary to Appellants' argument that there is no motivation to combine Suita's energy supply unit with Takano's welding apparatus so as to form a "unitary, structural unit," we determine that Suita's disclosure provides motivation for the combination. Specifically, Suita discloses that connecting the various components together as shown in Suita's Figure 1 provides quicker transmission of information, a greater resistance to external noise and a more compact and light welding structure (Suita, col. 2, ll. 5-19). Appellants do not dispute that it is logical to provide an energy supply system for the corresponding electronic components or that Suita discloses an energy supply system (Br. 5).

Accordingly, we conclude that it would have been obvious to combine Suita's integrated electrical supply unit with Takano's electric resistance

welding apparatus for the reasons given above. The Examiner has established a prima facie case of obviousness. Accordingly, the burden was properly shifted to Appellants to come forward with evidence or argument to rebut the Examiner's prima facie case. *In re Oetiker*, 977 F.2d 1443, 1445 (Fed. Cir. 1992).

Appellants attempt to rebut the Examiner's prima facie case of obviousness by arguing that the claimed invention that integrates the various components and the energy supply yields advantages (i.e., unexpected results) such as minimizing or completely dispensing with cable expenses, and providing stable and reliable communication, with reduced interference, between the energy supply and the other components of the welding system (Br. 5).

While Appellants argue certain advantages (i.e., unexpected results), the only evidence Appellants rely on are statements made in the Specification. However, no data is provided in the Specification to support, for example, the Appellants' statement that more stable communication between the various components and the electrical supply is achieved by the claimed invention. It is well settled that unexpected results must be established by factual evidence. *In re De Blauwe*, 736 F.2d 699, 705 (Fed. Cir. 1984). Mere argument or conclusory statements in the Specification does not suffice. *Id.*

Therefore, based upon the totality of the record before us by a preponderance of the evidence with due consideration to persuasive argument, we determine that the Appellants' evidence of unexpected results is insufficient to overcome the Examiner's prima facie case of obviousness.

Accordingly, we sustain the Examiner's § 103 rejection of claims 1, 6, and 7 over Takano in view of Suita.

CLAIMS 2 AND 3

Appellants argue Takano in view of Suita does not disclose a welding apparatus having the following claim features: "said energy supply system of said welding convertor is formed so that it is also used for supplying electrical energy to said servotong control," (claim 2), and "said energy supply system of a logic circuit of said welding convertor is formed so that it is also used for energy supply of a control of said servotong control and said welding process control" (claim 3) (Br. 7). As with claim 1, Appellants argue that Takano in view of Suita fail to disclose the various components of the welding apparatus forming a "unitary, structural unit" and unexpected results (Br. 7-8).

Regarding Appellants' "unitary, structural unit" argument and evidence of unexpected results that were previously made and submitted regarding claim 1, we are unpersuaded by this argument and evidence for the same reasons noted above with regard claim 1.

Appellants' arguments regarding claims 2 and 3, merely point out what claims 2 and 3 recite. Such an "argument" does not comply with rule 37 C.F.R. § 41.37(1)(c)(vii), which indicates that a statement merely of what a claim recites will not be considered an argument. In any event, Takano and Suita disclose the features which Appellants allege are not disclosed by the references.

Specifically, Takano discloses the claim 2 feature of supplying electrical power to both the servomotors that control the opening and closing

of the welding gun (i.e., the servotong) and the inverter (i.e., the welding convertor)¹ (Takano, col. 5, ll. 14-16; 26-55). Takano further discloses supplying power to a logic circuit (i.e., the circuitry that compares the data from a higher control portion and the code read from the inverters) (Takano, col. 5, ll. 66-67 and col. 6, ll. 1-23). Moreover, Saita discloses that the electrical supply unit provides electrical energy for all the various components of the welding apparatus (Saita, col. 3, ll. 54-60).

Appellants further argue that combining Saita's electrical supply unit with Takano's welding apparatus would change the principle of operation of the prior art (Br. 8). However, Appellants have not indicated how such a combination would change the principle of operation. Accordingly, Appellants' argument is without persuasive merit.

Therefore, Appellants' arguments regarding claims 2 and 3 are without persuasive merit. Accordingly, we sustain the Examiner's § 103 rejection of claims 2-5 over Takano in view of Saita.

DECISION

We sustain the Examiner's § 103(a) rejection of claims 1-7 over Takano in view of Saita.

The Examiner's decision is affirmed.

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

AFFIRMED

¹ The Examiner finds that Takano's inverter 21 corresponds to Appellants' claimed welding convertor (Ans. 4). Appellants do not dispute the Examiner's findings regarding Takano or Saita (Br. 5).

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