

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

Paper No. 13

UNITED STATES PATENT AND TRADEMARK OFFICE

---

BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

---

Ex parte WILLIAM T. CARTER JR., MARK G. BENZ, ROBERT J. ZABALA,  
PAUL L. DUPREE, and BRUCE A. KNUDSEN

---

Appeal No. 1998-0810  
Application No. 08/537,966

---

ON BRIEF

---

Before COHEN, ABRAMS, and GONZALES, Administrative Patent Judges.  
ABRAMS, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on appeal from the examiner's final rejection of claims 1-8 and 10-20, which are all of the claims pending in this application.

We REVERSE.

### BACKGROUND

The appellants' invention relates to a system for controlling the flow of melt from a cold wall induction guide tube mechanism. An understanding of the invention can be derived from a reading of exemplary claim 1, which appears in the appendix to the appellants' Brief.

The prior art references of record relied upon by the examiner in rejecting the appealed claims are:

Sawyer <u>et al.</u> (Sawyer '566)	5,348,566	Sep. 20, 1994
Sawyer <u>et al.</u> (Sawyer '206)	5,366,206	Nov. 22, 1994

Claims 1-8 and 10-20 stand rejected under 35 U.S.C. § 103 as being unpatentable over Sawyer '206 in view of Sawyer '566.

Rather than reiterate the conflicting viewpoints advanced by the examiner and the appellants regarding the above-noted rejection, we make reference to the Answer (Paper No. 12) for the examiner's complete reasoning in support of the rejections, and to the Brief (Paper No. 11) for the appellants' arguments thereagainst.

### OPINION

In reaching our decision in this appeal, we have given careful consideration to the appellants' specification and claims, the applied prior art references, the respective positions articulated by the appellants and the examiner, and the guidance provided by our

reviewing court. As a consequence of our review, we make the determinations which follow.

The rejection is under 35 U.S.C. § 103. The test for obviousness is what the combined teachings of the prior art would have suggested to one of ordinary skill in the art. See, for example, In re Keller, 642 F.2d 413, 425, 208 USPQ 871, 881 (CCPA 1981). In establishing a prima facie case of obviousness, it is incumbent upon the examiner to provide a reason why one of ordinary skill in the art would have been led to modify a prior art reference or to combine reference teachings to arrive at the claimed invention. See Ex parte Clapp, 227 USPQ 972, 973 (Bd. Pat. App. & Int. 1985). To this end, the requisite motivation must stem from some teaching, suggestion or inference in the prior art as a whole or from the knowledge generally available to one of ordinary skill in the art and not from the appellant's disclosure. See, for example, Uniroyal, Inc. v. Rudkin-Wiley Corp., 837 F.2d 1044, 1052, 5 USPQ2d 1434, 1439 (Fed. Cir.), cert. denied, 488 U.S. 825 (1988).

It is the examiner's view that all of the subject matter recited in the claims is disclosed by Sawyer '206 except for the specific means to control the melt temperature of the neck through which molten metal flows from the mechanism. Although not so explained, it appears to be the examiner's position that the claimed control means is taught by Sawyer '566, and it would have been obvious to one of ordinary skill in the art to modify Sawyer '206 by installing the control system of Sawyer '566 "in order to more

effectively regulate the electroslag refining process” (Answer, pages 3 and 4). The appellants argue in rebuttal that the rejection must fail because the claims on appeal set forth the invention through the use of a number of means-plus-function recitations of structure, and that the examiner has failed to point out exactly where these limitations are found in the applied prior art. The examiner’s response is that the appellants’ claims merely set forth a manner or method of use of the apparatus and “the manner in which these components are operated, since they can clearly be operated in the manner recited in the appealed claims, cannot be relied upon to further distinguish the appealed apparatus claims” (Answer, pages 3 and 4).

According to our reviewing court, means-plus-function limitations must be evaluated in the context of the sixth paragraph of 35 U.S.C. § 112. In order for such a limitation to be met, the prior art must perform the identical function recited in the means limitation, and perform that function using the structure disclosed in the appellant’s specification or an equivalent structure.<sup>1</sup> See Valmont Indus., Inc. v. Reinke Mfg. Co., 983 F.2d 1039, 1042,

---

<sup>1</sup>While there is no litmus test for an “equivalent” that can be applied with absolute certainty and predictability, there are several indicia that are sufficient to support a conclusion of equivalency or non-equivalency. These include:

- (1) Whether the prior art elements perform the function specified in the claim in substantially the same way, and produce substantially the same results as the corresponding structure disclosed in the specification. Odetics Inc. v. Storage Tech. Corp., 185 F.3d 1259, 1267, 51 USPQ2d 1225, 1229-30 (Fed. Cir. 1999).

(continued...)

25 USPQ2d 1451, 1454 (Fed. Cir 1993). The examiner has disposed of the nineteen claims before us on appeal, and the some twenty-four recitations of structure in means-plus-function format that they contain, in only eighteen lines. He has not even alleged that the requirement set out by the court in Valmont is met, much less has he explained which elements of the prior art devices perform each function, and whether they are identical to the appellants' structure or the equivalents thereof. The examiner merely has maintained his stance that the control system disclosed in Sawyer '566 "can" be operated in the manner required by the claims, and that is all that is necessary to render the claims unpatentable over this prior art. From our perspective, however, the examiner's explanation of the rejection falls short of establishing that a prima facie case of obviousness exists with regard to the claimed subject matter, and the rejection therefore

---

<sup>1</sup>(...continued)

(2) Whether a person of ordinary skill in the art would have recognized the interchangeability of the elements shown in the prior art for the corresponding elements disclosed in the specification. Al-Site Corp. v. VSI Int'l Inc., 174 F.3d 1308, 1316, 50 USPQ2d 1161, 1165 (Fed. Cir. 1999).

(3) Whether the prior art elements are the structural equivalents of the corresponding elements disclosed in the specification. In re Bond, 910 F.2d 831, 833, 15 USPQ2d 1566, 1568 (Fed. Cir. 1990).

(4) Whether there are insubstantial differences between the prior art elements and the corresponding elements disclosed in the specification. IMS Technology, Inc. v. Haas Automation, Inc., 206 F.3d 1422, 1436, 54 USPQ2d 1129, 1138-39 (Fed. Cir. 2000).

cannot be sustained. We further point out that the examiner has not seen fit to respond to the arguments on pages 11-15 of the Brief in which the appellants have explained why the subject matter recited in each of the claims on appeal patentably distinguishes over the prior art.

There are two other matters that are worthy of comment on the record. One of the distinguishing features which the appellants argue defines their invention over the applied prior art is that it “dynamically” controls the flow of molten metal from the exit orifice of the apparatus, in contrast to the “static” or “constant” control of flow taught by the two applied references (see, for example, Brief, pages 9-12). In this regard, we note that the term “dynamically” does not appear in the original disclosure, but was added to the claims in an amendment after the final rejection (Paper No. 9), whereupon it became a key factor in the appellant’s arguments. The examiner did not inquire of the appellants as to the meaning to be applied to this term, the result being that no explicit definition is present in the record. Nor did the examiner raise any question regarding the fact that the specification fails to describe, and the drawing fails to show, the communication link between the atomizer and the computer which would seem to be necessary in order to coordinate the orientation of the atomizer with the flow rate of the molten metal stream exiting from the apparatus, pursuant to maintaining the claimed “dynamic” control.

SUMMARY

The rejection is not sustained.

The decision of the examiner is reversed.

REVERSED

IRWIN CHARLES COHEN  
Administrative Patent Judge

NEAL E. ABRAMS  
Administrative Patent Judge

JOHN F. GONZALES  
Administrative Patent Judge

NEA:Imb

)  
)  
)  
)  
)  
) BOARD OF PATENT  
) APPEALS AND  
) INTERFERENCES  
)  
)  
)  
)  
)

Appeal No. 1998-0810  
Application No. 08/537,966

Page 8

GENERAL ELECTRIC COMPANY  
CRD PATENT DOCKET RM 4A59  
P O BOX 8 BUILDING K 1 SALAMONE  
SCHENECTADY , NY 12301

APPEAL NO. 1998-0810 - JUDGE ABRAMS  
APPLICATION NO. 08/537,966

APJ ABRAMS

APJ COHEN

APJ GONZALES

DECISION: **REVERSED**

Prepared By:

**DRAFT TYPED:** 14 Aug 01

**FINAL TYPED:**