

THIS OPINION WAS NOT WRITTEN FOR PUBLICATION

The opinion in support of the decision being entered today
(1) was not written for publication in a law journal and
(2) is not binding precedent of the Board.

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte HOLGER LEONHARDT
and TOBIAS MULLER

Appeal No. 1998-2914
Application 08/510,971¹

ON BRIEF

Before COHEN, MEISTER and BAHR, **Administrative Patent Judges.**

MEISTER, **Administrative Patent Judge.**

DECISION ON APPEAL

Holger Leonhardt and Tobias Muller (the appellants)

¹ Application for patent filed August 3, 1995. According to appellants, this application is a continuation-in-part of Application 08/389,980, filed February 14, 1995; which is a continuation of Application 08/073,122, filed June 7, 1993.

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appeal from the final rejection of claims 1-10, the only claims present in the application.

We **REVERSE**.

The appellants' invention pertains to a device for obtaining register deviations in a multi-color rotary printing machine. Independent claims 1 and 3 are further illustrative of the appealed subject matter and a copy thereof may be found in the appendix to the brief.

The answer states that the following rejections are applicable to the claims on appeal:²

Claims 1-10 stand rejected under 35 U.S.C. § 112, first paragraph, as being based upon a nonenabling disclosure.

Claims 1-10 stand rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which the appellants regard as the invention.

The rejections are explained on pages 5-17 of the answer and the arguments of the appellants may be found on pages 19-38 of the brief.

² On page 4 of the answer the examiner expressly withdrew the final rejection of the appealed claims under 35 U.S.C. §§ 101 and 103.

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OPINION

We have carefully reviewed the appellants' invention as described in the specification, the appealed claims, and the respective positions advanced by the appellants in the brief and by the examiner in the answer. As a consequence of this review, we will not sustain either of the above-noted rejections.

Considering first the rejection of claims 1-10 under 35 U.S.C. § 112, first paragraph, we initially note that the test regarding enablement is whether the disclosure, as filed, is sufficiently complete to enable one of ordinary skill in the art to make and use the claimed invention without undue experimentation. *In re Wands*, 858 F.2d 731, 737, 8 USPQ2d 1400, 1404 (Fed. Cir. 1988) and *In re Scarbrough*, 500 F.2d 560, 566, 182 USPQ 298, 302 (CCPA 1974). The experimentation required, in addition to not being undue, must not require ingenuity beyond that expected of one of ordinary skill in the art. **See** *In re Angstadt*, 537 F.2d 498, 504, 190 USPQ 214, 218 (CCPA 1976).

It is also well settled that the examiner has the initial

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burden of producing reasons that substantiate a rejection based on lack of enablement. *In re Strahilevitz*, 668 F.2d 1229, 1232, 212 USPQ 561, 563 (CCPA 1982) and *In re Marzocchi*, 439 F.2d 220, 224 169 USPQ 367, 370 (CCPA 1971). Once this is done, the burden shifts to the appellants to rebut this conclusion by presenting evidence to prove that the disclosure is enabling. *In re Doyle*, 482 F.2d 1385, 1392, 179 USPQ 227, 232 (CCPA 1973), *cert. denied*, 416 U.S. 935 (1974) and *In re Eynde*, 480 F.2d 1364, 1370, 178 USPQ 470, 474 (CCPA 1973).

Here, we have carefully reviewed the appellants' disclosure in light of the examiner's contentions, but do not find that the examiner has satisfied the initial burden of producing a convincing line of reasoning which would substantiate a rejection based on lack of enablement with respect to the subject matter defined by the claims on appeal. It is, of course, true that every detail has not been set forth in the specification. However, as the court in *In re Gaubert*, 524 F.2d 1222, 1226, 187 USPQ 664, 667 (CCPA 1975) set forth in quoting from *Martin v. Johnson*, 454 F.2d 746, 751, 172 USPQ 391, 395 (CCPA 1972):

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To satisfy §112, the specification disclosure must be sufficiently complete to enable one of ordinary skill in the art to make the invention without undue experimentation, although the need for a minimum amount of experimentation is not fatal * * *. Enablement is the criterion, and **every detail need not be set forth in the written specification** if the skill in the art is such that the disclosure enables one to make the invention. [Citations omitted; emphasis added.]

Moreover, the determination of what constitutes undue experimentation in a given case requires the application of a standard of **reasonableness**, having regard for the nature of the invention and the state of the art. **Ex parte Forman**, 230 USPQ 546, 547 (Bd. Pat. App. & Int. 1986).

The examiner has merely made broad allegations that the disclosure is insufficient to teach how the various control systems and components thereof cooperate to perform the claimed functions, but has provided no convincing reasons as to **why** the appellants' disclosure is in fact insufficient. For example, the examiner broadly contends that there is no adequate disclosure of (1) "hard wired circuitry", (2) how the register mark signals and the reference marks can be scanned by the same receiver and sensed substantially at the same time, (3) how the signals generated by the sensors are

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"connected" to the circuit arrangement, (4) how signals from the reference marks make it possible to perform an interpolation of the velocity of the sheet in time intervals, (5) how the processing system performs a registration operation in order to correct register errors and (6) how and by what means a steering and regulation device "receives" inputs from the control circuit. The examiner, however, has presented no convincing line of reasoning as to why one of ordinary skill in this art, armed with the appellants'

disclosure, would not be able to make and use the claimed invention without undue experimentation.

As to contentions (1), (3) and (6), the block diagram of Figs. 10 and 11 show the required hardware units and we do not believe that it can be seriously contended that one of ordinary skill in this art would not be able to provide the necessary hard-wired circuitry and connections between these units without undue experimentation. As to contention (2), the specification adequately explains on page 17 that the reference and register marks are placed within range of a single optical scanning device 1 or 2 and on page 24 that:

The pre-processing circuit 54 includes two differentiating circuits 71, 72 of conventional construction, with a common input 66 connected via signal line 66 to optical scanning device 1 (Fig. 1), while pre-processing unit 54' is connected to scanning unit 2 via line 67. When the scanning signal on signal line 66 goes active as a leading edge P11, P13, P15 or P17 (Fig. 8) of a register or reference mark is detected, a positive start pulse is generated on the differentiating circuit's output lead 73, and when subsequently the trailing edge of the mark is detected, a positive end pulse is generated on the output lead 74.

As to contention (5), the formulas for computing the various register deviations are provided on pages 20 and 21 of the specification and the necessary hardware for computing the deviations and making corrections is diagrammatically illustrated in Fig. 11. Page 25 of the specification states that complete detail has not been shown for sake of clarity since "such details would be readily provided by a person having ordinary skills in the design of electronic circuits," and the examiner has provided no reasons whatsoever as to why this might not be the case.

On pages 12 and 13 the answer states that:

Appellant has pointed to various pages in the specification to support the contention that the questioned steps as itemized above are enabling. The conclusions made by appellant are not supported by the submission of sufficient facts to support those conclusions. A review of the specification

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disclosure and the referenced flow chart diagram reveals that there is no sufficient teachings and examples that indicate how and in what manner the various steps as itemized above are enabled. Here, where the programming and software disclosure only includes a flowchart, the likelihood of more than routine experimentation being required to generate a working program from such a flowchart also increases. This is especially so when considering that approximately 1600 man hours was necessary for developing a working computer program for the claimed invention.

However, as we have noted above, the examiner has the initial burden of producing reasons that substantiate a rejection based on lack of enablement. Moreover, as our reviewing court stated in *In re Wright*, 999 F.2d 1557, 1561 27 USPQ2d 1510, 1513 (Fed. Cir. 1993):

Although not explicitly stated in section 112, to be enabling, the specification of a patent must teach those skilled in the art how to make and use the full scope of the claimed invention without "undue experimentation." . . . (the first paragraph of section 112 requires that the scope of protection sought in a claim bear a reasonable correlation to the scope of enablement provided by the specification). Nothing more than objective enablement is required, and therefore it is ***irrelevant whether this teaching is provided through broad terminology or illustrative examples.***
[Citations omitted; emphasis added.]

Here, although only a flowchart (as distinguished from a complete computer program) has been provided, we are of the

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opinion that the scope of protection sought in the claims on appeal bears a reasonable correlation to the scope of enablement provided by the appellants' disclosure.

As to the question of 1600 man hours, the brief states that:

It is well known to practitioners in the art that developing and implementing software to be used in a real-time operating environment is usually a time-consuming process since many machine variables of the machine operation under influence of varying environmental factors must be considered. Appellants believe that 1600 man hours is a very reasonable amount of effort to be expected in implementing an invention such as the instant invention, and do not believe that 1600 man hours is indicative of undue experimentation in implementing the invention. [Page 33.]

The examiner, however, has provided no reasons as to why this might not be the case.

In view of the foregoing, we will not sustain the rejection of claims 1-10 under 35 U.S.C. § 112, first paragraph.

Turning to the rejection of claims 1-10 under 35 U.S.C. § 112, second paragraph, the main thrust of the examiner's position is that:

The claim language is narrative for the most part, reciting elements in an inferential manner, omitting necessary and meaningful structural cooperation and

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connections between elements, and omitting necessary antecedent structure to support the various recitations of function. The claims are indefinite as to the structural arrangement of parts so as to enable a definite and meaningful system. [Answer, page 5.]

We will not support the examiner's position. The examiner's approach as to whether the claims on appeal satisfy the second paragraph of § 112 appears to have been to study the disclosure, and then formulate a conclusion as to what structural elements should be claimed to support the recited functions. Such an approach is improper. **See In re Borkowski**, 422 F.2d 904, 909, 164 USPQ 642, 645-46 (CCPA 1970). There is only one basic ground for rejecting a claim under the second paragraph of § 112, namely, the language employed does not reasonably apprise those of skill in the art of its scope. **See, e.g., In re Warmerdam**, 33 F.3d 1354, 1361, 31 USPQ2d 1754, 1759 (Fed. Cir. 1994) and **In re Moore**, 439 F.2d 1232, 1235, 169 USPQ 236, 238 (CCPA 1971). While the claims are perhaps broader than the examiner would like, breadth alone is not to be equated with indefiniteness.

In re Johnson, 558 F.2d 1008, 1016 n.17, 194 USPQ 187, 194

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n.17 (CCPA 1977); *In re Miller*, 441 F.2d 689, 693, 169 USPQ
597, 600 (CCPA 1971); *In re Gardner*, 427 F.2d 786, 788, 166
USPQ 138, 140

(CCPA 1970) and *Ex parte Scherberich*, 201 USPQ 397, 398 (Bd.
App. 1977).

Since we are of the opinion that one of ordinary skill in
this art would be reasonably apprised of the scope of claims
1-10, we will not sustain the rejection of these claims under
35 U.S.C. § 112, second paragraph.³

The decision of the examiner to reject claims 1-10 under
35 U.S.C. § 112, first and second paragraphs, is reversed.

REVERSED

IRWIN CHARLES COHEN)

³ Although we are of the opinion that one of ordinary
skill in the art would be reasonably apprised of the scope of
claims 1-10, we note that in lines 23 and 25 of claim 1 (as it
appears in the appendix to the brief) "section" reference
marks has no clear antecedent basis. In the event of further
prosecution before the examiner, this informality should be
corrected.

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