

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opinion in support of the decision being entered today (1) was not written for publication in a law journal and (2) is not binding precedent of the Board.

Paper No. 13

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte GEORGE W. RHYNE

Appeal No. 96-0196
Application 08/158,337¹

ON BRIEF

Before HAIRSTON, JERRY SMITH, and TORCZON, Administrative Patent Judges.

JERRY SMITH, Administrative Patent Judge.

DECISION ON APPEAL

¹ Application for patent filed November 29, 1993.

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This is a decision on the appeal under 35 U.S.C. § 134 from the examiner's rejection of claims 2-21, which constitute all the claims remaining in the application.

The invention pertains to a hand-held portable electronic device with a manually controllable cursor. The device has a small real image of a complete frame of alphagraphics and an enlarged virtual image which is viewed by the operator. A manual control mounted on the hand-held device allows control of the cursor in the virtual image.

Representative claim 2 is reproduced as follows:

2. Portable electronics equipment with manually controllable cursor comprising:

a hand held electronic device;

a virtual display including display electronics having a two-dimensional array of pixels providing a small real image of a complete frame of alphagraphics and magnifying optics for providing a magnified perceivable virtual image of the complete frame of alphagraphics in the virtual display, the virtual display being mounted in the hand held electronic device for viewing of the magnified perceivable virtual image by an operator;

cursor electronics mounted in the hand held electronic device and connected to the display electronics for producing a manually controllable cursor virtual image in the virtual display; and

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manual controls mounted on the hand held electronic device and externally accessible by the operator, the manual controls being connected to the cursor electronics for controlling the position and function of the cursor virtual image within the magnified perceivable virtual image of the complete frame of alphagraphics.

The examiner relies on the following references:

Bendig 1984	4,451,701	May 29,
Maeser et al. (Maeser) 1989	4,803,652	Feb. 07,
Becker 1990	4,934,773	June 19,
Tanielian et al. (Tanielian) 1991	5,051,738	Sep. 24,
Hacker et al. (Hacker) 1992	5,123,064	June 16,
Tanaka et al. (Tanaka) 1992	5,130,838	July 14,

Claim 5 stands rejected under 35 U.S.C. § 112, first paragraph, as being based on an inadequate disclosure. Claims 2-21 stand rejected under 35 U.S.C. § 103. As evidence of obviousness the examiner offers the basic combination of Becker in view of Maeser with respect to claims 2, 3, 8, 9, 11, 14 and 15. Bendig is added to the basic combination with respect to claims 4-7 and 16-19. Tanielian is added to the basic combination with respect to claims 10, 20 and 21.

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Hacker is added to the basic combination with respect to claim 12, and Tanaka is added to the basic combination with respect to claim 13.

Rather than repeat the arguments of appellant or the examiner, we make reference to the brief and the answer for the respective details thereof.

OPINION

We have carefully considered the subject matter on appeal, the rejections advanced by the examiner, the arguments in support of the rejections and the evidence of obviousness relied upon by the examiner as support for the obviousness rejections. We have, likewise, reviewed and taken into consideration, in reaching our decision, the appellant's arguments set forth in the brief along with the examiner's rationale in support of the rejections and arguments in rebuttal set forth in the examiner's answer.

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It is our view, after consideration of the record before us, that the disclosure in this application describes the claimed invention in a manner which complies with the requirements of 35 U.S.C. § 112. We are also of the view that the collective evidence relied upon would not have suggested to one of ordinary skill in the art the obviousness of the invention as set forth in claims 2-21. Accordingly, we reverse.

We consider first the rejection of claim 5 under the first paragraph of 35 U.S.C. § 112. The rejection is based on the written description requirement of Section 112 asserting that the specification, as originally filed, does not provide support for the invention as now claimed. Specifically, the rejection states that "[t]here is no disclosure teaching that the touch pad includes means for providing a control signal continuously alterable in accordance with portions of the touch pad being touched" [answer, page 4]. The examiner reasons that the control signal could be discretely alterable instead of continuously alterable [answer, page 12].

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Appellant points to several portions of the specification and argues that the person skilled in this art would have understood that the invention included a continuously alterable control signal as recited in claim 5 [brief, pages 6-7]. We agree with appellant. The examiner's position seems to suggest that appellant is limited to the generic description of cursor movement since neither continuous movement nor discrete movement is specifically identified. The person skilled in this art, however, would have recognized that the invention included any type of conventional cursor movement which could be effected by a touch pad. Since continuously alterable cursor control signals were a standard form of cursor control, we conclude that appellant's specification supports the language of claim 5 and is, therefore, in compliance with 35 U.S.C. § 112.

We now consider the various rejections of the claims under 35 U.S.C. § 103. In rejecting claims under 35 U.S.C.

§ 103, it is incumbent upon the examiner to establish a factual basis to support the legal conclusion of obviousness.

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See In re Fine, 837 F.2d 1071, 1073, 5 USPQ2d 1596, 1598 (Fed. Cir. 1988). In so doing, the examiner is expected to make the factual determinations set forth in Graham v. John Deere Co., 383 U.S. 1, 17, 148 USPQ 459, 467 (1966), and to provide a reason why one having ordinary skill in the pertinent art would have been led to modify the prior art or to combine prior art references to arrive at the claimed invention. Such reason must stem from some teaching, suggestion or implication in the prior art as a whole or knowledge generally available to one having ordinary skill in the art. Uniroyal Inc. v. Rudkin-Wiley Corp., 837 F.2d 1044, 1051, 5 USPQ2d 1434, 1438 (Fed. Cir.), cert. denied, 488 U.S. 825 (1988); Ashland Oil, Inc. v. Delta Resins & Refractories, Inc., 776 F.2d 281, 293, 227 USPQ 657, 664 (Fed. Cir. 1985), cert. denied, 475 U.S. 1017 (1986); ACS Hospital Systems, Inc. v. Montefiore Hospital, 732 F.2d 1572, 1577, 221 USPQ 929, 933 (Fed. Cir. 1984). These showings by the examiner are an essential part of complying with the burden of presenting a prima facie case of obviousness. Note In re Oetiker, 977 F.2d 1443, 1445, 24 USPQ2d 1443, 1444 (Fed. Cir. 1992).

Independent claims 2 and 8 are rejected based on the teachings of Becker and Maeser. Becker teaches a miniature video display system in which a small real image is converted into a larger virtual image. Becker successively energizes a single row of real pixels and reflects these successive rows to the virtual image at a rate which makes it appear as if a full page of pixels has been used as the real image. Becker contains no discussion of cursor electronics or manual cursor control. Maeser teaches a portable terminal device which can transmit and receive information. Maeser suggests that data input can be by way of any suitable system for entering alphanumeric or other data. It is the examiner's position that such suitable input systems for a computer are known to inherently include manual cursor controls. The examiner asserts that it would have been obvious to the artisan to increase the size of the real image in Becker and eliminate Becker's vibrating mirror to reduce the cost of manufacturing [answer, page 5]. The examiner also asserts that it would have been obvious to the artisan to include Maeser's manual

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cursor control in the device of Becker to enable display updating [answer, page 6].

Appellant argues that Becker produces a real image made up of a single row of pixels and does not teach the real image of a complete frame of alphagraphics as recited in independent claims 2 and 8 [brief, pages 7-8]. Appellant also argues that nothing in Becker or Maeser suggests the use of a manually controllable cursor mounted on a hand-held device for controlling a cursor in the device [Id. pages 8-9]. We basically agree with appellant that the prior art cited by the examiner does not suggest the invention of independent claims 2 and 8 for reasons indicated by appellant.

At the outset we note that the examiner has not cited a single piece of prior art which specifically suggests that it was known to have manual cursor control means on hand-held electronic devices. This is especially surprising when one considers that the marketplace at the time this invention was filed was inundated with hand-held computer games which typically had a full page virtual display and a manually controlled cursor. In our view any of these hand-held games

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would have been a more pertinent reference than any of the references cited by the examiner. Although the examiner was apparently looking for a hand-held communication receiver (claim 8), we note that claim 2 was not so limited (hand-held electronic device). Thus, we assume that there is better prior art available than what the examiner has presented to us.

Nevertheless, we are constrained to decide the obviousness issue based on the evidence of record in this case. The evidence applied by the examiner suffers all the deficiencies observed by appellant. The real image of Becker is limited to a single row of pixels. Information for different rows of the page are sequentially fed to the same row of pixels, and the successive rows are caused to create a virtual complete frame of information by a mirror which redirects the same real image source to different virtual image locations. The examiner proposes to eliminate Becker's mirror and to replace the single row of the real image with a full page of rows for the real image. This modification would produce Becker's effect in exactly the opposite manner from

that disclosed by Becker. Such a modification is not suggested by Becker, but comes only from the examiner's effort to meet the claimed invention in hindsight. Even though the artisan could modify Becker in the manner suggested by the examiner, such modification is not suggested by either Becker or Maeser.

Maeser does not even rise to the level of suggesting that manually controlled cursors were known in the art. The examiner relies on Maeser to teach that generic computer input devices were known and manually controlled cursor inputs were inherently included within such known devices. Maeser provides no teaching, however, with respect to placing such a manually controlled cursor input on a hand-held electronic device. Again, there is no specific suggestion in Maeser which would have led the artisan to modify Becker in the manner suggested by the examiner.

In summary, the rejection of independent claims 2 and 8 cannot be sustained based on the teachings of Becker and Maeser. Although there is probably better prior art than that

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cited by the examiner, such prior art is not of record in this case and, therefore, has not been considered by us.

With respect to each of the dependent claims, none of the other applied references to Bendig, Tanielian, Hacker or Tanaka overcomes the basic deficiencies of the Becker-Maeser combination. Therefore, we do not sustain the rejection of any of the dependent claims on appeal.

The decision of the examiner rejecting claims 2-21 is reversed.

REVERSED

	KENNETH W. HAIRSTON)	
	Administrative Patent Judge)	
)	
)	BOARD OF PATENT
	JERRY SMITH)	APPEALS
AND)	
	Administrative Patent Judge)	INTERFERENCES
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