The opinion in support of the decision being entered today
is *not* binding precedent of the Board.

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte GEOFFREY S.M. HEDRICK

Appeal 2007-2519
Application 10/616,208
Technology Center 2100

Decided: September 24, 2007

Before JOSEPH F. RUGGIERO, ANITA PELLMAN GROSS, and
ST. JOHN COURTENAY III, *Administrative Patent Judges*.

COURTENAY, *Administrative Patent Judge*.

DECISION ON APPEAL

This is a decision on appeal under 35 U.S.C. § 134(a) from the Examiner's rejection of claims 1-19. We have jurisdiction under 35 U.S.C. § 6(b). An oral hearing on this appeal was conducted on September 12, 2007.

We REVERSE.

THE INVENTION

The disclosed invention relates in general to the display of manually-entered data on a flat panel display and, more particularly, to assisting the manual entry or adjustment of flight-related data that is normally displayed in a particular form on a flat panel display in an aircraft cockpit (Specification 3).

Independent claim 1 is illustrative:

1. A method of facilitating user entry of a manually-adjustable data setting normally imaged in a predetermined size on an imaging display in an aircraft cockpit, comprising the steps of:

   manually manipulating, by the user, a control for one of adjusting the data setting and selecting the data setting to be adjusted;

   sensing said manipulating of the control by the user;

   enlarging, in response to said sensed manipulating of the control by the user, the image of the data setting on the display from the predetermined size to a predeterminately enlarged size to unambiguously direct the user's attention to the predeterminately enlarged imaged data setting to be adjusted;

   maintaining the enlarged image of the data setting on the display during said sensed manipulating of the control by the user; and

   reducing the enlarged image of the data setting on the display from the predeterminately enlarged size to the predetermined size when said sensed manipulating of the control is determined to have ceased.

THE REFERENCES

Feyereisen	US 2003/0132860 A1	Jul. 17, 2003
Amro	US 6,909,439 B1	Jun. 21, 2005

THE REJECTIONS

Claims 1-19 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over the teachings of Feyereisen in view of Amro.

Rather than repeat the arguments of Appellant or the Examiner, we make reference to the Brief and the Answer for the respective details thereof.

ISSUE

We find the following issue to be dispositive with respect to all claims on appeal:

Whether Feyereisen or Amro teaches the recited limitation of "reducing the enlarged image of the data setting on the display from the predeterminately enlarged size to the predetermined size *when said sensed manipulating of the control is determined to have ceased.*" (claim 1, emphasis added; *see also* the equivalent language recited in independent claim 10).

Although we need not reach the issue of hindsight to decide this appeal, we nevertheless agree with Appellant that the Examiner has impermissibly relied upon hindsight in formulating the rejection (*see* analysis *infra*).

STATEMENT OF LAW

"What matters is the objective reach of the claim. If the claim extends to what is obvious, it is invalid under *§ 103*." *KSR Int'l Co. v. Teleflex, Inc.*, 127 S. Ct. 1727, 1742, 82 USPQ2d 1385, 1397 (2007). To be nonobvious, an improvement must be "more than the predictable use of prior art elements according to their established functions." *Id.* at 1740, 82 USPQ2d at 1396.

ANALYSIS

We consider the Examiner's rejection of independent claims 1 and 10 as being unpatentable over the teachings of Feyereisen in view of Amro.

Appellant argues, *inter alia*, that neither Feyereisen nor Amro teaches returning the enlarged imaged data to its original size in response to the cessation of user manipulation of a control (Br. 9, 11-12). Appellant further contends that nothing in Feyereisen teaches or suggests changing the size of the displayed data in response to any specific user action. Instead, Appellant points out that all such data display changes in Feyereisen occur solely in response to the current mode or phase of flight (Br. 9; *see also* Feyereisen ¶0062). Regarding the secondary Amro reference, Appellant notes that a specific user action (e.g., tapping with a stylus on an indicated screen area) is required to close the enlarged data entry window (Br. 12). Appellant concludes the Examiner has impermissibly relied upon hindsight in formulating the rejection (Br. 13).

The Examiner disagrees. The Examiner argues that manually adjusting flight indicators by the pilot is inherent in the teachings of

Feyereisen. The Examiner states: "it appears that the indicators [in Feyereisen] are enlarged responsive to the user selecting and manipulating the altimeter indicator. Even if it is not, enlarging a graphical object to receive user manipulation is well known in the art as disclosed by Amro (col. 5, lines 43-64, col. 6, lines 43-65, and in figures 6A-6C)." (Answer 9). The Examiner contends that an artisan would have been motivated to make the proffered combination to realize "accuracy of input" and "ease of user concentration as suggested by Amro (5:43-57)." (Answer 10).

We begin our analysis by noting the primary Feyereisen reference teaches an aircraft cockpit display "whereby different ones of the information displays are dynamically emphasized as a predetermined function of the current mode or phase of flight." (*see* Feyereisen, ¶0062). After carefully reviewing the Feyereisen reference in its entirety, we find no support for the Examiner's contention that "the indicators [in Feyereisen] are enlarged responsive to the user selecting and manipulating the altimeter indicator." (Answer 9, ¶2). We find Feyereisen's mode control 46 merely selects one of four operation modes associated with the Traffic Alert Collision Avoidance System (TCAS), i.e., the "standby," "transponder on," "traffic alert," and "traffic alert/resolution" modes (*see* Feyereisen ¶0013). Thus, the modes controlled by control 46 appear to have no direct nexus with the "taxi," "take off," "cruising," "approach," "landing," and "ground" phases or current modes of flight that trigger a dynamic emphasis (i.e., an enlargement) of certain display indicators associated with a particular phase of flight.

We note the secondary Amro reference teaches, in one embodiment, a Personal Digital Assistant (PDA) that implements "graphical widgets" that may be resized to allow easier user input (*see* Amro col. 5, ll. 35-45). We find Amro discloses that manual input (e.g., tapping a stylus to select a return widget) is required to return the display to its original (smaller) size, as follows:

> The mechanism of the present invention provides graphical widgets displayed on a screen. A graphical widget is a graphical input mechanism that can be resized to allow easier user input. Input may be received by the graphical widget in its reduced form, but is more difficult. These graphical widgets are displayed in a predefined size and layout in these examples. These graphical widgets are small in size and not typically suitable for user input, but when selected or tapped, a graphical widget will increase or grow in size to a preprogrammed percentage of the size of the screen *and display a small "return" or "get back" graphical widget. This return widget is used to return the graphical widget to its original size. Alternatively, instead of selecting a return widget, the user may reselect the graphical widget to cause the graphical widget to be resized to the original size* [emphasis added].

(Amro, col. 5, ll. 42-57).

> When in its expanded form, the graphical widget is of a size that allows the user to input data using a stylus. Further, the size may be of one that allows the user to be able to see text being entered. *When the return widget is selected, the graphical widget is returned to its original size and layout.* This return widget may be a graphical object, such as, for example, a small button displayed in association with the graphical widget [emphasis added].

(Amro, col. 5, l. 60 through col. 6, l. 1).

> For example, a user of a PDA desires to fill in a name and number in a contact list. The user may tap a name test field,

> which is a graphical widget, with a stylus. In response, the graphical widget will increase in size such that the user can more easily enter the name. When the user is finished, *the user may select the return widget and have the name text field return to its original size and layout* [emphasis added].

(Amro, col. 6, ll. 4-9).

In particular, we note that when a user *ceases* entering data into Amro's data entry window (i.e., graphical widget), the display does not return to its normal (smaller) size until the user *actively selects* the return widget (*see* Amro, col. 5, ll. 53-54). Alternately, the user must reselect the graphical widget to cause the graphical widget to be resized to its original size (*see* Amro, col. 5, ll. 54-57). Therefore, we do not agree with the Examiner that Amro fairly teaches or suggests the language of instant claims 1 and 10 that requires the enlarged image of the displayed data to be reduced to its original (predetermined) size "*when said sensed manipulating of the control is determined to have ceased.*" (claim 1). *See also* the equivalent language recited in independent claim 10, i.e., "*when user manipulating of said control has ceased.*").

Hindsight

Appellant further contends the Examiner has impermissibly relied upon hindsight in formulating the rejection (*see* Br. 13).

The Examiner asserts in the rejection that an artisan, having knowledge of Feyereisen's aircraft display system, would have looked to the stylus-triggered enlargement and return-to-original-size feature of Amro's personal digital assistant (PDA) for the purpose of achieving "ease and accuracy of user input parameters." (*see* Answer 4).

We note that the U.S. Supreme Court recently reaffirmed that "[a] factfinder should be aware, of course, of the distortion caused by hindsight bias and must be cautious of argument reliant upon *ex post* reasoning." *KSR Int'l Co. v. Teleflex Inc.*, 127 S. Ct. 1727, 82 USPQ2d at 1397. *See also Graham v. John Deere Co.*, 383 U.S. at 36, 148 USPQ at 474. Nevertheless, in *KSR* the Supreme Court also qualified the issue of hindsight by stating that "[r]igid preventative rules that deny factfinders recourse to common sense, however, are neither necessary under our case law nor consistent with it." *KSR Int'l Co. v. Teleflex Inc.*, 127 S. Ct. 1727, 82 USPQ2d at 1397.

Here, we conclude that a person of ordinary skill in the art *having common sense* at the time of the invention would not have reasonably combined the Feyereisen and Amro references in the manner suggested by the Examiner. In particular, we see no deficiency in the teachings of Feyereisen that would have led an artisan familiar with aircraft displays and controls to look to Amro's unrelated teaching of a PDA stylus-triggered resizing feature. In the record before us, we find only the instant Specification teaches or suggests that a stylus could conceivably be used in an aircraft for the purpose of control panel data entry or adjustment (*see* Specification 8, l. 6). Therefore, we agree with Appellant that the Examiner has impermissibly relied upon hindsight in formulating the rejection. Moreover, based upon the record before us, we conclude that the instant invention (as claimed) is a nonobvious advancement in aircraft safety that is more than the predictable use of prior art elements according to their established functions.

For at least the aforementioned reasons, we agree with Appellant that the Examiner has failed to meet the burden of presenting a prima facie case of obviousness. Accordingly, we will reverse the Examiner's rejection of independent claims 1 and 10 as being unpatentable over Feyereisen in view of Amro. Because we have reversed the Examiner's rejection of each independent claim, we will not sustain the Examiner's rejection of any dependent claims under appeal. Therefore, we also reverse the Examiner's rejection of dependent claims 2-9 and 11-19 as being unpatentable over Feyereisen in view of Amro.

DECISION

In summary, we will not sustain the Examiner's rejection of any claims under appeal. Therefore, the decision of the Examiner rejecting claims 1-19 is reversed.

REVERSED

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