UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte JOHN J. POE

Appeal 2008-5169
Application 11/163,744
Technology Center 2600

Decided: December 31, 2008

Before KENNETH W. HAIRSTON, MAHSHID D. SAADAT,
and KARL D. EASTHOM, *Administrative Patent Judges*.

SAADAT, *Administrative Patent Judge*.

DECISION ON APPEAL

Appellant appeals under 35 U.S.C. § 134(a) from a Final Rejection of claims 1-5 and 7-11, which are all of the claims pending in this application since claims 6 and 12 have been canceled. We have jurisdiction under 35 U.S.C. § 6(b).

We affirm.

STATEMENT OF THE CASE

Appellant's invention relates to a standard interface between a vehicle warning system and auto pilot system to allow communication between the two systems (Spec. 1). The disclosed assisted recovery system and method controls the vehicle based on the received signals such as localizer or glide slope signals generated based on at least one of a directional or pitch command signal (Spec. 2).

Claim 1, which is representative of the claims on appeal, reads as follows:

> 1. A method performed on a vehicle for assisted recovery, the method comprising:
>
> receiving at least one of a directional or pitch command signal;
>
> generating at least one of a localizer or glide slope signal based on the received signal;
>
> wirelessly transmitting the at least one localizer or glide slope signals via a predefined frequency;
>
> receiving the wirelessly transmitted signals at a navigation system; and
>
> controlling the vehicle based on the received signals,
>
> wherein the at least one of directional or pitch command signals are generated by an assisted recovery component based on a proximity alert and a time delay.

The prior art applied in rejecting the claims on appeal is:

Simpson	US 3,860,800	Jan. 14, 1975
Ross	US 4,442,490	Apr. 10, 1984
Lin	US 6,480,789 B2	Nov. 12, 2002

The Examiner rejected claims 1, 2, 5, 7, 8, and 10 under 35 U.S.C. § 103(a) based upon the combination of Simpson and Lin and further added Ross for rejecting claims 3, 4, 9 and 11.[1]

We make reference to the Appeal Brief (filed Jan. 4, 2008), the Reply Brief (filed Apr. 8, 2008) and the Answer (mailed Feb. 12, 2008) for the positions of Appellant and the Examiner. Only those arguments actually made by Appellant have been considered in this decision. Arguments which Appellant did not make in the Briefs have not been considered and are deemed to be waived. *See* 37 C.F.R. § 41.37(c)(1)(vii).

ISSUE

The issue is whether Appellant has shown that the Examiner erred in rejecting the claims under 35 U.S.C. § 103. The issue turns on whether there is a legally sufficient justification for combining the disclosures of Simpson and Lin and if so, whether the combination of the applied references teaches the claimed subject matter.

PRINCIPLES OF LAW

1. Scope of Claims

The scope of the claims in patent applications is determined not solely on the basis of the claim language, but upon giving claims their broadest reasonable construction in light of the specification as it would be interpreted by one of ordinary skill in the art. *In re American Academy of*

[1] The obviousness rejection of independent claims 1 and 7 was modified in the Answer to be based upon the combination of Simpson and Lin after Appellant canceled claims 6 and 12 and added their limitations to their corresponding base claims 1 and 7 in an amendment filed July 25, 2007.

Science Tech Center, 367 F.3d 1359, 1364 (Fed. Cir. 2004). The "broadest reasonable interpretation" rule recognizes that "before a patent is granted the claims are readily amended as part of the examination process." *Burlington Indus. v. Quigg*, 822 F.2d 1581, 1583 (Fed. Cir. 1987). Thus, a patent applicant has the opportunity and responsibility to remove any ambiguity in claim term meaning by amending the application. *In re Prater*, 415 F.2d 1393, 1404-05 (CCPA 1969).

"[T]he words of a claim 'are generally given their ordinary and customary meaning.'" *Phillips v. AWH Corp.*, 415 F.3d 1303, 1312 (Fed. Cir. 2005) (en banc) (quoting *Vitronics Corp. v. Conceptronic, Inc.*, 90 F.3d 1576, 1582 (Fed. Cir. 1996)). Furthermore, the specification is the single best guide to the meaning of a claim term. *Phillips v. AWH Corp.*, 415 F.3d at 1315 (Fed. Cir. 2005).

2. Obviousness

> Section 103 forbids issuance of a patent when 'the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains.'

KSR Int'l Co. v. Teleflex Inc., 127 S. Ct. 1727, 1734 (2007).

"The combination of familiar elements according to known methods is likely to be obvious when it does no more than yield predictable results." *Leapfrog Enter., Inc. v. Fisher-Price, Inc.*, 485 F.3d 1157, 1161 (Fed. Cir. 2007) (quoting *KSR*, 127 S. Ct. at 1739-40). "One of the ways in which a patent's subject matter can be proved obvious is by noting that there existed at the time of invention a known problem for which there was an obvious solution encompassed by the patent's claims." *KSR*, 127 S. Ct. at 1742.

"[I]f a technique has been used to improve one device, and a person of ordinary skill in the art would recognize that it would improve similar devices in the same way, using the technique is obvious unless its actual application is beyond his or her skill." *KSR*, 127 S. Ct. at 1740.

ANALYSIS

1. Claim Rejection over Simpson and Lin

The rejection is based on Simpson for disclosing the elements of claim 1 except for the at least one of directional or pitch command signals generated by an assisted recovery component based on a proximity alert and a time delay, for which the Examiner relies on Lin (Ans. 3-4). In particular, the Examiner points to Figure 1 and column 12, lines 42-50 of Lin where the echoes of transmitted signals from the terrain surface and a measure of the time delay between transmission and reception of the radio signal are used in the measurements sent to the proximity warning system processor (Ans. 4).

Appellant does not dispute the teachings of Simpson with respect to the claimed signals related to the localizer or the glide slope and merely argues that the wireless signals are not being received in a "navigation system" but in the actuators 27 (App. Br. 9), which is equivalent to at least a portion of an autopilot system. Appellant relies on a definition of "navigation" by Merriam-Webster's Dictionary to distinguish the actuator 27 from a navigation system (*id.*). Appellant specifically contends that, even if wireless communication was used instead of wired communication, a navigation system in Simpson would have been located before the glide slope error detector 2 since Simpson already receives glide slope signal from another source (App. Br. 9-10).

The Examiner responds that, despite the dictionary definitions of the term "navigation system," Appellant's Specification does not provide support for Appellant's narrow definition of the "navigation system" (Ans. 8). The Examiner characterizes the entire system of Simpson as a navigation system where the control actuator 27 controls or manages the aircraft's flight plan (*id.*).

We agree with the Examiner's line of reasoning characterizing the entire system disclosed by Simpson as the "navigation system." This characterization is consistent with Appellant's disclosure which states that "[t]he navigation system 70 includes a component (not shown) that processes the received localizer and glide slope signals as it would if the signals came from a ground-based system." (Spec. 4:20-22). Therefore, the system disclosed by Simpson, which performs the disclosed functions, meets the limitation of a "navigation system."

Additionally, the claim does not require any specific source for the generated signals. As such, we remain unconvinced by Appellant's argument (Reply Br. 4) that Simpson already receives glide slope signal from another source. Similarly, we disagree with Appellant's assertions (*id.*) that "Simpson makes no mention of generating a glide slope signal … based on a received directional or pitch command signal" and "Simpson only generates a pitch control (pitch access [sic] control) signal based on the **radio** defined glide slope plane." (*Id.)* Simpson's system is actually conditioned for glide slope zero plane acquisition by using the same scheme used to develop pitch axis control signals for glide slope zero plane tracking (col. 2, ll. 30-41) based on signals received from the positional and

directional detectors 1-5 (Figure 1). Thus, the generated glide slope signal is based on these detectors' signals.

With respect to combining the references, Appellant argues that since Lin sends the navigating data to a synthetic display for ground proximity warning instead of a navigation system, Lin fails to overcome the deficiencies noted in Simpson (App. Br. 10). The Examiner responds by pointing out that the autopilot disclosed by Lin is also a part of the navigation system (Ans. 9). We agree with the Examiner's position and find that Lin discloses an integrated positioning/proximity warning system for warning and avoiding a potential collision (col. 1, ll. 7-15). We further find that the synthetic vision system 70, which displays the received projected flight path and warning decision message along with the terrain data and the optimal evasion path (Fig. 11; col. 17, ll. 14-19), is still a part of the navigation system of Lin.

Giving the broadest reasonable interpretation to claim 1 and considering our analysis above, we simply find the Examiner's position that using the assisted recovery component based on a proximity alert and a time delay of Lin (col. 12, ll. 42-50) would be recognized by the skilled artisan as obvious enhancements to the navigation system of Simpson. According to *Leapfrog*, when a combination of familiar elements according to methods known to the skilled artisan (such as proximity and time delay-based assisted recovery) achieves a predictable result, it is likely to be obvious. Accordingly, the rejection of independent claim 1, as well as claims 2 and 5, argued together as one group (App. Br. 8-11), under 35 U.S.C. § 103(a) based upon the teachings of Simpson and Lin is sustained.

Regarding claim 7, Appellant relies on the same arguments discussed above with respect to claim 1 (App. Br. 11-14), which were found to be unpersuasive. Therefore, for the same reasons stated above with respect to claims 1, 2, and 5, we sustain the 35 U.S.C. § 103(a) rejection of claim 7, as well as claims 8 and 10 which are not argued separately (App. Br. 14), based upon the teachings of Simpson and Lin.

2. Claim Rejection over Simpson, Lin, and Ross

With respect to the rejection of claims 3, 4, 9, and 11 over Simpson and Lin, and further in view of Ross, Appellant provides the same arguments discussed above regarding claim 1, which were found to be unpersuasive. Additionally, Appellant asserts that the Examiner has not shown how the combination of Ross provides the missing disclosure in Simpson related to sending the signals to a navigation system (App. Br. 14-16). Accordingly, we sustain the 35 U.S.C. § 103(a) rejection of claims 3, 4, 9, and 11 over Simpson, Lin, and Ross.

CONCLUSION OF LAW

For all of the reasons discussed above, we find that Appellant has failed to point to any error in the Examiner's position and sustain the 35 U.S.C. § 103 rejections of claims 1-5 and 7-11.

DECISION

The decision of the Examiner rejecting claims 1-5 and 7-11 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

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