UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte ADAM C. BRAUN, KENNETH M. MARTIN, and
LOUIS B. ROSENBERG

Appeal 2008-1112
Application 10/184,041
Technology Center 2600

Decided: July 18, 2008

Before ANITA PELLMAN GROSS, SCOTT R. BOALICK, and KEVIN F. TURNER, *Administrative Patent Judges*.

TURNER, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

Appellants appeal under 35 U.S.C. § 134 from the Final Rejection of claims 58-76 and 84. We have jurisdiction under 35 U.S.C. § 6(b). We reverse.

Appellants' claimed invention relates to interface devices that allow human users to receive haptic feedback, where that feedback is correlated to events and interactions in the graphical environment to convey more

immersive, entertaining, and functional environment to the user. (Spec. 1:29-31 and 2:1-15).

Independent claim 58 is illustrative of the invention and reads as follows:

> 58. An apparatus, comprising a processor configured to:
>
> determine a closed loop force value,
>
> receive an open loop force value, and
>
> output a force signal based at least in part on the closed loop force value and the open loop force value.

The Examiner relies on the following prior art references to show unpatentability:

Casey	US 6,097,499	Aug. 1, 2000

Kilpatrick "The Use of a Kinesthetic Supplement in an Interactive Graphics System" (1976), pp. 1-52.

Claims 58-60, 62-76, and 84 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Kilpatrick.

Claim 61 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Kilpatrick and Casey.

Rather than reiterate the arguments of Appellants and the Examiner, reference is made to the Briefs and Answer for the respective details. Only those arguments actually made by Appellants have been considered in this decision. Arguments which Appellants could have made but chose not to make in the Briefs have not been considered and are deemed to be waived [see 37 C.F.R. § 41.37(c)(1)(vii)].

ISSUES

(i) Under 35 U.S.C. § 102(b), with respect to appealed claims 58-60, 62-76, and 84, does Kilpatrick disclose all of the elements of those claims to render them anticipated?

(ii) Under 35 U.S.C. § 103(a), with respect to appealed claim 61, would one of ordinary skill in the art at the time of the invention have found it obvious to combine Kilpatrick and Casey to render the claimed invention unpatentable?

FINDINGS OF FACT

1. The Specification details that the architecture of the system allows the force processing to be shared between the haptic feedback interface and a host computer. The system determines a closed loop force value based on manipulandum position, receives an open loop force value based on time-based effects, and outputs a force signal based on the two values, such that the local microprocessor implements commands and outputs an appropriate force effect at an appropriate time. (Spec. 9:26-34; 15:15-23; 16:1-19).

2. Independent claim 58 recites, in part, that the processor receives "an open loop force value," and outputs "a force signal based at least in part on the closed loop force value and the open loop force value." Independent claim 70 recites, in part, code commensurate with the processes of the processor in claim 58.

3. The Specification defines "closed loop" effects and conditions as resulting from a force that is based on a position, where the "force output from these effects is directly related to the motion that occurs, and which is

sensed, on the device." The Specification also defines "open loop" effects as primarily based on time, where such effects "are all completely independent of the sensed motion measurements on the device." (Spec. 16:1-19).

4. Kilpatrick discloses a manipulator arm in communication with a processor. The position and the orientation of the grip of the manipulator is sensed and forwarded to the processor. An output force signal is sent to the manipulator to produce a force effect. (Abstract; pp. 32-47; Fig. 1.4).

5. Casey discloses methods for isochronous printing with minimum buffering. The reference details that a Universal Serial Bus (USB) can be used to connect a host computer with peripheral devices. (Abstract; Col. 6, ll. 1-4).

PRINCIPLES OF LAW

"A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros., Inc. v. Union Oil Co. of Calif.*, 814 F.2d 628, 631 (Fed. Cir. 1987). 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. *See In re Fine*, 837 F.2d 1071, 1073 (Fed. Cir. 1988). "'[T]here must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness' . . . [H]owever, the analysis need not seek out precise teachings directed to the specific subject matter of the challenged claim, for a court can take account of the inferences and creative steps that a person of ordinary skill in the art would

employ." *KSR Int'l Co. v. Teleflex Inc.*, 127 S. Ct. 1727, 1741 (2007) (quoting *In re Kahn*, 441 F.3d 977, 988 (Fed. Cir. 2006)).

During examination, the claims must be interpreted as broadly as their terms reasonably allow. *In re Am. Acad. of Sci. Tech Center*, 367 F.3d 1359, 1369 (Fed. Cir. 2004). When the specification states the meaning that a term in the claim is intended to have, the claim is examined using that meaning, in order to achieve a complete exploration of the applicant's invention and its relation to the prior art. *In re Zletz*, 893 F.2d 319, 321-22 (Fed. Cir. 1989).

ANALYSIS

I. Anticipation by Kilpatrick

Claims 58-60, 62-76, and 84

Appellants argue that Kilpatrick cannot anticipate the subject matter of independent claims 58 and 70 because Kilpatrick fails to disclose "output[ting] a force signal based at least in part on the closed loop force value and the open loop force value". (App. Br. 4-6; Reply Br. 3-5). The Examiner finds that "receiving moving data from S/360 reads on receive [sic] an open loop force value as claimed" and that "Kilpatricks's teachings of updating the force when the arm is move [sic] reads on 'receive an open loop force value' within the scope of the broad claims." (Ans. 6). We cannot agree with the Examiner.

The independent claims recite the use of open and closed loop force values (FF. 2), and Appellants' Specification (FF. 3) makes clear the meaning of those terms within the context of the application. Like Appellants, we cannot find disclosure in Kilpatrick that is equivalent to open loop force values. From the Examiner's discussion in the rejection and the

Examiner's arguments, it seems apparent that the updating is based on a movement of the arm, which would fall under closed loop force values (FF. 4), as those terms have been defined in the Specification. The Examiner also argues that "[t]here is nothing in the claim that defines or limits the closed loop forces, open loop forces as alleged by appellant," and that the "specification is not the measure of the invention." (Ans. 5). However, we disagree that all claims terms must be defined in the claims themselves. When the specification states the meaning of a term in the claim, it is that meaning that should be used for examination. Given the clear meaning of the terms open and closed loop force values, we find that the Examiner has not proven that such equivalents are disclosed and utilized in Kilpatrick.

In view of the above discussion, the Examiner's anticipation rejection has been overcome and we reverse the Examiner's 35 U.S.C. § 102(b) rejection, based on Kilpatrick, of independent claims 58 and 70, as well as dependent claims 59, 60, 62-69, 71-76, and 84, not separately argued by Appellants.

II. Obviousness over Kilpatrick and Casey

Claim 61

With respect to the obviousness rejection over Kilpatrick and Casey, Appellants argue that Casey fails to teach or suggest the use of open loop forces (FF. 5), as discussed above, and does not cure the deficiencies of Kilpatrick. (App. Br. 7). We agree. As such, by virtue of the dependence of claim 61 on claim 58, we find the rejection of claim 61 to likewise have been made in error.

CONCLUSION

The decision of the Examiner rejecting claims 58-60, 62-76, and 84 under 35 U.S.C. § 102(b) based on Kilpatrick and rejecting claim 61 under 35 U.S.C. § 103(a) based on Kilpatrick and Casey is reversed.

DECISION

The Examiner's rejections of claims 58-76 and 84 before us on appeal are reversed.

REVERSED

gvw

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