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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte KENJI KONO

Appeal 2019-003059
Application 13/700,119
Technology Center 2600

Before JOSEPH L. DIXON, MAHSHID D. SAADAT, and DONNA M. PRAISS, *Administrative Patent Judges*.

PRAISS, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

Appellant[1] appeals under 35 U.S.C. § 134(a) from a final rejection of claims 1–6. We have jurisdiction under 35 U.S.C. § 6(b).

We AFFIRM.

The claims are directed to an apparatus for providing a tactile sensation in response to reception of an input to a touch sensor. According to the Specification, the apparatus provides "a realistic tactile sensation matching an object as feedback based on an operation to the touch sensor." Spec. ¶ 16.

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[1] We use the word "Appellant" to refer to "applicant(s)" as defined in 37 C.F.R. § 1.42. Appellant identifies the real party in interest as Kyocera Corporation. Appeal Br. 2.

Independent claim 1, reproduced below, is illustrative.

> 1. A tactile sensation providing apparatus comprising:
>
> a touch sensor;
>
> a load detector configured to detect a pressure load on a touch face of the touch sensor;
>
> a tactile sensation provider configured to vibrate the touch face; and
>
> a controller communicatively coupled to the tactile sensation provider to drive the tactile sensation provider such that, upon detecting that a position of the pressure load satisfying a predetermined standard load shifts into a predetermined area corresponding to an input object, a first tactile sensation with a magnitude is provided to a pressing object pressing the touch face, wherein
>
> the controller drives the tactile sensation provider such that, upon detecting that the position of the pressure load satisfying the predetermined standard load shifts out of the predetermined area, a second tactile sensation with a magnitude is provided to the pressing object, and
>
> the controller drives the tactile sensation provider such that, upon detecting that the position of the pressure load satisfying the predetermined standard load slides along a continuous path from the predetermined area into another predetermined area corresponding to another input object and adjoining the predetermined area without passing through an area not corresponding to the input object or the another input object, a tactile sensation with a magnitude different from the magnitude of the first tactile sensation and the second tactile sensation is provided, wherein each of the input object and the another input object indicates an area for receiving an operation.

Appeal Br. 9 (Claims Appendix). Independent claims 2 and 3 are directed to a method and an apparatus, respectively, and similarly require tactile sensations having different magnitudes. *Id.* at 9–10.

REFERENCES

The prior art relied upon by the Examiner in rejecting the claims on appeal is:

Name	Reference	Date
Hoshino	US 2004/0108995 A1	June 10, 2004
Mahesh	US 2010/0023857 A1	Jan. 28, 2010
Burrough	US 2010/0156818 A1	June 24, 2010

REJECTIONS

The Examiner maintains the rejection of claims 1–6 under 35 U.S.C. § 103(a) as unpatentable over Hoshino in view of Mahesh and Burrough. Ans. 3; Final Act. 5.

ANALYSIS

Appellant contends the Examiner erred because the cited prior art does not disclose "tactile sensations that simulate actual buttons, as recited in independent claims 1–3." Appeal Br. 7; Reply Br. 1–2. Specifically, Appellant contends Mahesh "fails to teach, suggest, or otherwise render obvious the idea of executing a control based on a pressure lead so as to provide a 'realistic tactile sensation'" as disclosed in the Specification. Appeal Br. 7; Reply Br. 2. Appellant also argues that the Examiner's reliance on Mahesh's teaching that a finger touch has a capacitance that changes with pressure is unreasonable because the pressure of a touch does not linearly correspond to the capacitance of the finger, thus it is difficult to detect a pressure load by way of detecting a capacitance of the finger. Appeal Br. 7.

Appellant's arguments do not persuade us of error in the Examiner's rejection for the reasons provided by the Examiner in the Final Office Action and the Answer. We add the following for emphasis.

Each of independent claims 1–3 recites "a tactile sensation with a magnitude different from the magnitude of the first tactile sensation and the second tactile sensation." Appeal Br. 9–10 (Claims Appendix).
As the Examiner points out, "realistic tactile sensation" is not recited in the claims. Ans. 13. Limitations not appearing in the claims cannot be relied upon for patentability. *In re Self*, 671 F.2d 1344, 1348 (CCPA 1982). Therefore, Appellant's arguments differentiating the claims over the cited prior art on the basis of "realistic tactile sensation" are not persuasive of error.

To the extent that Appellant argues "realistic tactile sensation" is an inherent result of the claimed apparatus and method, the Examiner responds that if the prior art teaches the claim language, then it would also teach the result of a "realistic tactile sensation." *Id.* The Examiner cites Burrough ¶ 71 for describing "realistic clicking sensations to the user" with Burrough's click off vibration embodiment when the user begins lifting off of the touch screen, and Burrough's hard press initiating a selection that results in a click vibration while a light touch provides notification to the user that the user is in a location suitable for making a selection. *Id.* at 13–14. Appellant's assertion that Burrough's differentiating between a light touch and a hard press does not suggest a "realistic touch sensation" (Reply Br. 2) is not persuasive of error because (1) "realistic touch sensation" is not recited in the claims and (2) Appellant does not direct us to limitations in the claims that differentiate Burrough's different touch events producing clicking sensations.

Regarding the capacitance of a finger to detect pressure load, the Examiner points out that Mahesh is only relied upon to teach different areas,

i.e. buttons, receiving different force feedback and boundaries between areas while Hoshino is relied upon for teaching a load detector for detecting a pressure on a touch screen and Burrough for teaching a user can slide a finger from the different buttons of Hoshino as modified by Mahesh. Ans. 15. Appellant does not dispute the Examiner's characterization of the prior art rejection, but, rather, maintains that none of the cited references discloses a "realistic tactile sensation." Reply Br. 3. For the reasons discussed above, we do not find this argument persuasive of error.

Thus, Appellant has not shown error in the Examiner's rejection of independent claims 1–3 and in the Examiner's factual findings or conclusion of obviousness based upon the teachings and suggestions of Hoshino in combination with Mahesh and Burrough.

For the above reasons and those provided in the Final Office Action and the Answer, we sustain the Examiner's § 103(a) rejection of claims 1–3. We also sustain the Examiner's § 103(a) rejection of dependent claims 4–6, argued for their dependency from claim 3. Appeal Br. 7.

CONCLUSION

The Examiner did not err in rejecting claims 1–6 under 35 U.S.C. § 103(a).

DECISION

For the above reasons, we AFFIRM the Examiner's rejection of claims 1–6 under 35 U.S.C. § 103(a).

In summary:

Claim(s) Rejected	35 U.S.C. §	Basis/Reference(s)	Affirmed	Reversed
1–6	103(a)	Hoshino, Mahesh, Burrough	1–6	

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