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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte MICHAEL BOSHRA

Appeal 2016-002189
Application 13/451,241[1]
Technology Center 2600

Before HUNG H. BUI, JON M. JURGOVAN, and
DANIEL J. GALLIGAN, *Administrative Patent Judges*.

GALLIGAN, *Administrative Patent Judge*.

DECISION ON APPEAL

Appellant seeks our review under 35 U.S.C. § 134(a) of the Examiner's final rejection of claims 1–33. We have jurisdiction under 35 U.S.C. § 6(b).

We REVERSE, and enter a new ground of rejection in accordance with 37 C.F.R. § 41.50(b).[2]

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[1] The Appeal Brief identifies Authentec, Inc. as the real party in interest. App. Br. 1.

[2] Our Decision refers to Appellant's Appeal Brief, filed July 14, 2015 ("App. Br."); Appellant's Reply Brief, filed December 8, 2015 ("Reply Br."); Examiner's Answer, mailed October 30, 2015 ("Ans."); and Final Office Action, mailed February 4, 2015 ("Final Act.").

STATEMENT OF THE CASE

Claims on Appeal

Claims 1, 11, 18, 26, and 30 are independent claims. Claims 1 and 26 are reproduced below:

1. An electronic device comprising:

a finger-operated input device;

a finger sensor carried by said finger-operated input device to sense a user's finger; and

a processor to

perform at least one menu function responsive to operation of said finger-operated input device,

acquire finger-enrollment biometric data of the user's finger from said finger sensor responsive to each of a plurality of operations of said finger-operated input device,

acquire finger-matching biometric data of the user's finger from said finger sensor responsive to a subsequent operation of said finger-operated input device, and

authenticate the user based upon a match between the acquired finger-matching biometric data and the finger-enrollment biometric data.

26. An electronic device comprising:

wireless communications circuitry;

a finger-operated input device;

a finger sensor carried by said finger-operated input device to sense a user's finger; and

a processor to

initiate wireless communication via said wireless communications circuitry and responsive to operation of said finger-operated input device,

> acquire finger-enrollment biometric data of the user's finger from said finger sensor responsive to each of a plurality of operations of said finger-operated input device,
>
> acquire finger-matching biometric data of the user's finger from said finger sensor responsive to a subsequent operation of said finger-operated input device, and
>
> authenticate the user based upon a match between the acquired finger-matching biometric data and the finger-enrollment biometric data.

References

Minemura	US 2004/0085188 A1	May 6, 2004
Howell et al.	US 2005/0169503 A1	Aug. 4, 2005
Nagar et al.	US 2012/0051605 A1	Mar. 1, 2012

Examiner's Rejections

(1) Claims 26 and 30 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Minemura. Final Act. 2–4.

(2) Claims 1, 8–11, 18, and 25 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Minemura and Nagar. Final Act. 4–7.

(3) Claims 2–7, 12–17, and 19–24 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Minemura, Nagar, and Howell. Final Act. 7–11.

(4) Claims 27–29 and 31–33 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Minemura and Howell. Final Act. 11–13.

ANALYSIS

Rejection of Claims 26 and 30 under 35 U.S.C. § 102

Appellant contends the Examiner erred in finding Minemura describes a "processor to initiate wireless communication via said wireless communications circuitry and responsive to operation of said finger-operated input device, [and] acquire finger-enrollment biometric data of the user's finger from said finger sensor responsive to each of a plurality of operations of said finger-operated input device," as recited in claim 26 and similarly recited in claim 30. App. Br. 8–13; Reply Br. 2–3.

Appellant does not appear to dispute that Minemura describes "initiat[ing] wireless communication via said wireless communications circuitry and responsive to operation of said finger-operated input device." In fact, Appellant states that "Minemura discloses a user approving payment by pushing the fingerprint authentication sensor, which causes the portable phone to transmit data to a corresponding point-of-sale (POS) terminal." App. Br. 9 (citing Minemura ¶¶ 51–52). Rather, Appellant's arguments suggest a dependency between certain recited functions of the "processor." For example, Appellant argues: "Minemura fails to disclose the acquisition of the finger-enrollment biometric data being performed responsive to an operation of a finger-operated input device that causes an initiation of the wireless communication." App. Br. 10. Claims 26 and 30 do not require acquiring finger-enrollment data responsive to the operation that initiates wireless communication. Rather, the claims require "acquir[ing] finger-enrollment biometric data of the user's finger from said finger sensor responsive to each of a plurality of operations of said finger-operated input device." The operation that initiates wireless communication may be, but

need not be, one of the recited "plurality of operations." Thus, Appellant's interpretation is not commensurate with the scope of the claimed recitations.

Appellant further contends that the Examiner erred in finding Minemura inherently discloses "acquir[ing] finger-enrollment biometric data of the user's finger from said finger sensor responsive to each of a plurality of operations of said finger-operated input device." App. Br. 9–11; Reply Br. 2–3. Although Appellant does not dispute that Minemura's "fingerprint collation data" describe the claimed "finger-enrollment biometric data," Appellant argues Minemura does not describe how the collation data is acquired. App. Br. 9–10.

In response, the Examiner explains that the fingerprint collation data "are *acquired by said finger authentication sensor* prior to performing fingerprint authentication, in order to perform fingerprint authentication processing," and, therefore, "the corresponding fingerprint enrollment data *is necessarily acquired* by said finger sensor 11 prior to performing fingerprint authentication process in Minemura, in response to the operation of each user who is pushing his/her finger on the surface of the fingerprint sensor in advance." Ans. 15. We agree with the Examiner that, according to Minemura, the fingerprint collation/enrollment data necessarily must have been acquired prior to performing fingerprint authentication, but we do not agree that such data necessarily must have been acquired from finger sensor 11. As Appellant correctly notes, Minemura does not describe how the fingerprint collation data are collected. *See* App. Br. 9–11. Although the Examiner's reasoning (*see* Ans. 15–16) and the evidence of record, discussed below, demonstrate that acquiring such data from the finger sensor would have been known and well within the grasp of a person of ordinary

skill in the art, the collation data could have been put on the device in other ways, such as through downloading such data to the device. The Federal Circuit has stated that inherency "may not be established by probabilities or possibilities. The mere fact that a certain thing may result from a given set of circumstances is not sufficient." *In re Robertson*, 169 F.3d 743, 745 (Fed. Cir. 1999) (citations and internal quotation marks omitted). Thus, we conclude the Examiner erred in finding Minemura inherently discloses "acquir[ing] finger-enrollment biometric data of the user's finger from said finger sensor responsive to each of a plurality of operations of said finger-operated input device."

Because we are persuaded of error in the Examiner's reliance on inherency, we are constrained by the record not to sustain the rejection of claims 26 and 30 under 35 U.S.C. § 102 as anticipated by Minemura.

Rejection of Claims 27–29 and 31–33 under 35 U.S.C. § 103

Claims 27–29 depend from claim 26, and claims 31–33 depend from claim 30. Because the Examiner's rejection of these dependent claims incorporated the Examiner's erroneous finding on inherency as to the independent claims, we are constrained by the record not to sustain the rejection of claims 27–29 and 31–33 under 35 U.S.C. § 103(a) as obvious over Minemura and Howell.

Rejections of Claims 1–25 under 35 U.S.C. § 103

As Appellant notes, the Examiner's rejections of independent claims 1, 11, and 18 rely on the Examiner's finding of inherency, discussed above. *See* App. Br. 14. Because we conclude the Examiner's finding of inherency is erroneous, we are constrained by the record not to sustain the rejections under 35 U.S.C. § 103(a) of claims 1, 8–11, 18, and 25 over Minemura and

Nagar and claims 2–7, 12–17, and 19–24 over Minemura, Nagar, and Howell.

NEW GROUND OF REJECTION

Independent Claims 1, 11, 18, 26, and 30

We enter the following new ground of rejection pursuant to our authority under 37 C.F.R. § 41.50(b). Independent claims 1, 11, 18, 26, and 30 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Minemura and Nagar.

As discussed above, we are persuaded that the Examiner erred in finding Minemura inherently discloses "acquir[ing] finger-enrollment biometric data of the user's finger from said finger sensor responsive to each of a plurality of operations of said finger-operated input device." Although fingerprint collation/enrollment data are not necessarily acquired from finger sensor 11 in Minemura, the evidence of record demonstrates that acquiring such data from the finger sensor as claimed would have been known and well within the grasp of a person of ordinary skill in the art. For example, Nagar describes "finger enrollment mode 220," in which "a user is requested to present his/her finger in front of the imaging sensor" such that "a database of reference finger images is created using the biometric system." Nagar ¶ 45.

Appellant's arguments on appeal further support this finding. In characterizing the prior art, Appellant states:

> [P]rior art enrollment of finger biometric data generally requires a series of finger placements responsive to a prompt for enrollment. In such a case, the user is prompted to enroll his or her fingers through multiple placements of the fingers adjacent

> the finger biometric sensor. This process can be time consuming and often annoying to users, especially since, for a proper enrollment, a threshold quality and quantity of finger biometric enrollment data must be acquired, which can translate into repetitive finger placements. This may be especially the case when the finger is not properly placed on the finger biometric sensor, for example, too much/little pressure, rolled finger, etc.
>
> To address this problem, the claimed embodiments, for example, enroll the user's finger while *performing other applications or navigating a menu*, so the enrollment may be considered transparent to the user, i.e., no explicit or separate enrollment process. (See Appellant's Specification, paragraph 0027, for example). In other words, the user may not be inconvenienced by the enrollment process, which, as noted above, is generally performed by a separate dedicated enrollment process.

App. Br. 12–13.

Appellant's argument suggests that the claimed recitation of "acquir[ing] finger-enrollment biometric data" excludes known prior art processes of acquiring enrollment data by prompting the user. We disagree. The disputed recitation requires acquiring such data "from said finger sensor responsive to each of a plurality of operations of said finger-operated input device." Encompassed within this subject matter are operations of the finger-operated input device that are performed in conjunction with prompts to the user. This is evident by looking at various dependent claims that recite "wherein said processor is to prompt, via said display, the user to acquire the finger-enrollment biometric data." *See* claims 2, 14, 21, 27, and 32.

Claim 11 recites "a finger sensor carried by said pushbutton switch to sense a user's finger," and with respect to the disputed limitation, differs only slightly from the other independent claims, reciting that the processor

"acquire finger-enrollment biometric data of the user's finger from said finger sensor responsive to each of a plurality of operations of said pushbutton switch." We agree with the Examiner's finding that Minemura describes a device having a finger sensor carried by a pushbutton switch. Final Act. 7 (citing ¶¶ 31–32, Figs. 1, 4). Minemura discloses:

> Fingerprint authentication sensor 11 is elastically supported using spring as a push button type switch 15, and as shown in FIG. 4, since physical pressure is added when finger 16 presses on front side of fingerprint authentication sensor 11, push button type switch 15 turns on and the fingerprint of finger 16 is detected.

Minemura ¶ 32.

In addition, we agree with the Examiner's findings that the combination of Minemura and Nagar teaches or suggests the remaining limitations of independent claims 1, 11, 18, 26, and 30. *See* Final Act. 2–7.

Unlike claims 26 and 30, claims 1, 11, and 18 do not include limitations reciting "wireless communications circuitry." Rather, claims 1 and 18 require a "processor to perform at least one menu function responsive to operation of said finger-operated input device," and claim 11 requires "a processor to perform at least one menu function responsive to operation of said pushbutton switch." Appellant argues:

> Minemura fails to disclose the acquisition of the finger-enrollment biometric data being performed responsive to an operation of finger-operated input device that causes at least one menu function to be performed. Similarly to that described above with respect to independent Claims 26 and 30, there is ***no logical relationship*** disclosed between **any hypothetical enrollment process** in Minemura **and the operating modes implemented as menu driven functions**.

App. Br. 15.

Claims 1, 11, and 18 do not require acquiring finger-enrollment data responsive to the operation that causes a menu function to be performed. The operation that causes a menu function to be performed may be, but need not be, one of the "plurality of operations" in the limitation reciting "acquir[ing] fingerprint-enrollment biometric data." Thus, Appellant's interpretation is not commensurate with the scope of the claimed recitations.

Based on the foregoing discussion, although the Examiner erred in finding Minemura inherently discloses "acquir[ing] finger-enrollment biometric data," as recited in the independent claims, we find that this was known in the prior art, as evidenced by Nagar and as acknowledged by Appellant's own arguments. We conclude that the subject matter of independent claims 1, 11, 18, 26, and 30 would have been obvious to a person of ordinary skill in the art based on the teachings of Minemura and Nagar, as discussed above. In particular, these claims are directed to combinations of familiar elements yielding predictable results—Minemura's teachings of fingerprint authentication processes and wireless communication in combination with Nagar's teachings of a fingerprint enrollment process and performing menu functions. *See KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398, 416 (2007) ("The combination of familiar elements according to known methods is likely to be obvious when it does no more than yield predictable results.").

As such, pursuant to our authority under 37 C.F.R. § 41.50(b), we enter a new ground of rejection that claims 1, 11, 18, 26, and 30 are unpatentable as obvious under 35 U.S.C. § 103(a) over Minemura and Nagar. We leave it to the Examiner to determine whether this new ground of rejection should be applied to the respective dependent claims.

DECISION

We reverse the Examiner's decision to reject claims 1–25, 27–29, and 31–33 under 35 U.S.C. § 103(a).

We reverse the Examiner's decision to reject claims 26 and 30 under 35 U.S.C. § 102.

Pursuant to 37 C.F.R. § 41.50(b), independent claims 1, 11, 18, 26, and 30 are rejected under 35 U.S.C. § 103(a).

Rule 37 C.F.R. § 41.50(b) states that "[a] new ground of rejection pursuant to this paragraph shall not be considered final for judicial review." Further, § 41.50(b) also provides that Appellant, WITHIN TWO MONTHS FROM THE DATE OF THE DECISION, must exercise one of the following two options with respect to the new grounds of rejection to avoid termination of the appeal as to the rejected claims:

> (1) *Reopen prosecution.* Submit an appropriate amendment of the claims so rejected or new evidence relating to the claims so rejected, or both, and have the matter reconsidered by the examiner, in which event the prosecution will be remanded to the examiner. . . .
>
> (2) *Request rehearing.* Request that the proceeding be reheard under § 41.52 by the Board upon the same record. . . .

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).

REVERSED
37 C.F.R. 41.50(b)