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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte DAVID TERRA, KOUN HAN, MICHAEL WELLS WHITE, and
MICHAEL DAHN

Appeal 2019-000092
Application 15/197,706
Technology Center 3600

Before JUSTIN BUSCH, JASON J. CHUNG, and JOYCE CRAIG,
Administrative Patent Judges.

CRAIG, *Administrative Patent Judge.*

DECISION ON APPEAL

STATEMENT OF THE CASE

Pursuant to 35 U.S.C. § 134(a), Appellant¹ appeals from the Examiner's decision rejecting claims 1–33, which constitute all the claims pending in this application. *See* Final Act. 1. We have jurisdiction under 35 U.S.C. § 6(b).

We reverse.

¹ We use the word Appellant to refer to “applicant” as defined in 37 C.F.R. § 1.42. Appellant identifies the real party in interest as Square, Inc. Appeal Br. 2.

CLAIMED SUBJECT MATTER

The claims are directed to a preliminary enablement of transaction processing circuitry. Claim 1, reproduced below, is illustrative of the claimed subject matter:

1. A system for exchanging electronic payment information between a payment reader and a chip card or wireless payment device, the system comprising:

a chip card interface configured to receive the chip card and exchange the electronic payment information with the chip card;

a wireless payment interface configured to communicate wirelessly to exchange the electronic payment information with the wireless payment device;

a transaction chip configured to operate in a low-power mode and in a transaction processing mode, wherein the transaction chip is configured to exchange payment information with the chip card interface or the wireless payment interface during the transaction processing mode, and wherein the transaction chip comprises:

a transaction processing unit coupled to the chip card interface and the wireless payment interface, wherein the transaction processing unit is configured to execute wake-up instructions and transaction processing instructions; and

a transaction processing memory configured to store the wake-up instructions and the transaction processing instructions, wherein the wake-up instructions cause the transaction processing unit to cause the transaction chip to enter the transaction processing mode in response to a wake-up request, wherein the transaction processing instructions cause the transaction processing unit to receive the electronic payment information during the transaction processing mode in response to a request for payment information, and wherein the wake-up instructions cause the transaction processing unit to return to the low-power mode from the transaction processing mode if the

request for payment information is not received within a threshold wakeup period; and

a payment reader chip coupled to the transaction chip, wherein the payment reader chip comprises:

a reader processing unit coupled to the transaction processing unit, wherein the reader processing unit is configured to execute reader instructions;

a communication interface configured to receive a wake-up signal as a wake-up message from a merchant device and to receive a request to process payment from the merchant device, wherein the wake-up message is based on the progress of a payment transaction at the merchant device; and

a reader memory configured to store the reader instructions, wherein the reader instructions cause the reader processing unit to identify a wake-up type based on the wake-up message, identify a wake-up rule based on the wake-up type, send the wake-up request to the transaction processing unit in response to a comparison of the wake-up signal to the wake-up rule, receive the request to process payment, and transmit the request for payment information to the transaction processing unit in Response to the request to process payment.

REJECTIONS

Claims 1 and 2 stand rejected under 35 U.S.C. § 103 as unpatentable over the combination of Smets et al. (US 2014/0263625 A1; published Sept. 18, 2014) (“Smets”) and Sweet et al. (US 8,534,555 B1; issued Sept. 17, 2013) (“Sweet”). Final Act. 3–7.

Claim 3 stands rejected under 35 U.S.C. § 103 as unpatentable over the combination of Smets, Sweet, Harrell (US 6,609,655 B1; issued Aug. 26,

2003), and Jonely (US 2013/0335199 A1; issued Dec. 19, 2013).² Final Act. 7.

Claims 4, 5, 6, 11, 13, 14, 15, 20, 22–27, 29, and 31–33³ stand rejected under 35 U.S.C. § 103 as unpatentable over the combination of Sweet and Smets. Final Act. 7–15.

Claims 8 and 17 stand rejected under 35 U.S.C. § 103 as unpatentable over the combination of Sweet, Smets, and Harrell. Final Act. 15–16.

Claims 9 and 18 stand rejected under 35 U.S.C. § 103 as unpatentable over the combination of Sweet, Smets, and Harrell. Final Act. 16–17.

Claim 10 stands rejected under 35 U.S.C. 103 as unpatentable over the combination of Sweet, Smets, Bailey (US 2004/0104268 A1; published June 3, 2004), and Weng et al. (US 2016/0007292; published Jan. 7, 2016) (“Weng”). Final Act. 17.

Claims 7 and 16 stand rejected under 35 U.S.C. § 103 as unpatentable over the combination of Sweet, Smets, and McIntyre (US 2014/0225713 A1; published Aug. 14, 2014). Final Act. 17–18.

Claims 19 and 28 stand rejected under 35 U.S.C. § 103 as unpatentable over the combination of Sweet, Smets, Harrell, and Weng. Final Act. 18–19.

² The Examiner identified Smets, Harrell, and Jonely in the rejection heading. Final Act. 7. Because claim 3 depends from claim 1, which stands rejected over Smets and Sweet, we include Sweet in the list of references for claim 3 for completeness.

³ The Examiner omitted claims 11 and 31–33 from the rejection heading, but analyzed the claims in the body of the rejection. Final Act. 7, 11. The Examiner included claim 28 in the rejection heading, but did not reject claim 28 based on this combination of references. We omit claim 28 and include claims 11 and 31–33 in the list of rejected claims for clarity.

Claims 12, 21, and 30 stand rejected under 35 U.S.C. 103 as unpatentable over the combination of Sweet, Smets, and Jonely. Final Act. 19–21.

ANALYSIS

With respect to independent claim 1, Appellant contends the cited portions of Smets and Sweet do not teach or suggest instructions that cause the payment reader processing unit “to identify a wake-up type based on the wake-up message,” “to identify a wake-up rule based on the wake-up type,” and “to send the wake-up request to the transaction processing unit in response to a comparison of the wake-up signal to the wake-up rule,” as claim 1 requires. Appeal Br. 11–16.

When rejecting claims for obviousness, the Examiner must show that each and every limitation of the claim is described or suggested by the prior art or would have been obvious based on the knowledge of those of ordinary skill in the art or the inferences and creative steps a person of ordinary skill in the art would have employed. *In re Fine*, 837 F.2d 1071, 1074 (Fed. Cir. 1988); *KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 417 (2007).

Appellant’s arguments have persuaded us that the Examiner erred. The Examiner found that Sweet teaches, “based on the swipe of a card, generating wake-up signals which transition the card reader from a low power mode to an operating mode (reads on wake-up) in order to allow the card reader to read data stored on the card.” Ans. 3 (citing Sweet col. 2:62–3:13.) The Examiner mapped the wake-up message based on card insertion of Sweet to the recited “wake-up type” of claim 1. *Id.* The Examiner further found that “the act of waking up a terminal based on the card insertion demonstrates the use of a rule.” *Id.* With regard to sending the wake-up

request in response to a comparison of the wake-up signal to the wake-up rule, the Examiner found that “[i]f the card reader transitions from a lower power mode to an operating mode based on the swipe of a card, a wake-up rule causing this transition to happen based upon a wake-up signal is clearly in place, otherwise it wouldn’t happen.” *Id.* at 4.

We agree with Appellant that the Examiner has not explained sufficiently how the proposed combination of Smets and Sweet teaches or suggests the claim limitations “to identify a wake-up type based on the wake-up message,” “to identify a wake-up rule based on the wake-up type,” and “to send the wake-up request to the transaction processing unit in response to a comparison of the wake-up signal to the wake-up rule,” as recited in independent claim 1 and commensurately recited in independent claims 4, 13, and 22. Even accepting the Examiner’s mapping of Sweet’s wake-up message based on card insertion to the recited “wake-up type” of claim 1, the Examiner has not explained clearly where or how the cited portions of Smets and Sweet teach or suggest *identifying* the wake-up type, as the claims require. Nor has the Examiner clearly explained where or how the cited prior art teaches or suggests that a reader processing unit *identifies* a wake-up rule based on the wake-up type. The Examiner found that waking up the terminal demonstrates “use of a rule,” but that is not what the claim requires. Furthermore, the Examiner has not clearly identified where the prior art references teach or suggest the recited sending of the wake-up request to the transaction processing unit in response to a comparison of the wake-up signal to the wake-up rule. Not only has the Examiner failed to clearly identify a wake-up rule, the Examiner has not identified where the

prior art teaches or suggests a comparison of the wake-up signal to the wake-up rule, or that a wake-up request is sent in response to the comparison.

For these reasons, the Examiner has not demonstrated that the combination of Smets and Sweet teaches or suggests the disputed limitations of claim 1.

Accordingly, on the record before us, we reverse the Examiner's § 103 rejection of independent claim 1. Regarding the rejections of claims 4, 13, and 22, on this record, the Examiner has not shown how the additionally cited secondary references overcome the aforementioned deficiencies of Smets and Sweet, in which the Examiner has not shown a teaching of the disputed limitations, as discussed above regarding the rejection of claim 1. Therefore, we also reverse the Examiner's § 103 rejections of independent claims 4, 13, and 22. Because we reverse each independent claim on appeal, we also reverse all of the dependent claims 2, 3, 5–12, 14–21, and 23–33, which stand with the independent claims from which they depend.

Because it is dispositive that the Examiner has not shown by a preponderance of evidence that the cited prior art teaches or reasonably suggests the claimed limitations “to identify a wake-up type based on the wake-up message,” “to identify a wake-up rule based on the wake-up type,” and “to send the wake-up request to the transaction processing unit in response to a comparison of the wake-up signal to the wake-up rule,” we do not address other issues raised by Appellant's arguments related to these claims. *See Beloit Corp. v. Valmet Oy*, 742 F.2d 1421, 1423 (Fed. Cir. 1984) (finding an administrative agency is at liberty to reach a decision based on “a single dispositive issue”).

DECISION

We reverse the decision of the Examiner rejecting claims 1–33.

DECISION SUMMARY

Claims Rejected	35 U.S.C. §	Reference(s)/Basis	Affirmed	Reversed
1, 2	103	Smets, Sweet		1, 2
3	103	Smets, Sweet, Harrell, Jonely		3
4, 5, 6, 11, 13, 14, 15, 20, 22–27, 29, 31–33	103	Sweet, Smets		4, 5, 6, 11, 13, 14, 15, 20, 22–27, 29, 31–33
8, 17	103	Sweet, Smets, Harrell		8, 17
9, 18	103	Sweet, Smets, Harrell		9, 18
10	103	Sweet, Smets, Bailey, Weng		10
7, 16	103	Sweet, Smets, McIntyre		7, 16
19, 28	103	Sweet, Smets, Harrell, Weng		19, 28
12, 21, 30	103	Sweet, Smets, Jonely		12, 21, 30
Overall Outcome:				1–33

REVERSED