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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte HARI THIRUVENGADA, JASON LABERGE,
WENDY FOSLIEN, PAUL DERBY,
SRIHARSHA PUTREVU, and JOSEPH VARGAS

Appeal 2015-008277
Application 13/367,015
Technology Center 2100

Before JUSTIN BUSCH, JENNIFER L. MCKEOWN, and
LINZY T. McCARTNEY, *Administrative Patent Judges*.

McCARTNEY, *Administrative Patent Judge*.

DECISION ON APPEAL

Appellants appeal under 35 U.S.C. § 134(a) from a rejection of claims 1–22. We have jurisdiction under 35 U.S.C. § 6(b).

We AFFIRM-IN-PART and enter a NEW GROUND OF REJECTION.

STATEMENT OF THE CASE

The present patent application “relates to a system for controlling a home automation system using body movements of a person.” Spec. ¶ 1.

Claim 1 illustrates the claimed subject matter:

1. A home automation sensing device comprising a body movement sensor, a computer processor and a computer storage device configured to:

store first data for identifying three dimensional body movements from sensor signals received from the body movement sensor, and second data for associating various three dimensional body movements with respective functions of the home automation sensing device;

receive a signal generated by the body movement sensor in response to a sensing of a three dimensional body movement of a person;

compare the signal to the first data;

identify the three dimensional body movement based on the first data;

determine a function of the home automation sensing device associated with the three dimensional body movement based on the second data; and

control the home automation sensing device in accordance with the function.

REJECTIONS

Claims 1–3, 5, 7–11, 13, 15–17, 19, 20, and 22 stand rejected under 35 U.S.C. § 102(b) as anticipated by Kramer et al. (US 2010/0066676 A1; Mar. 18, 2010).

Claims 4, 6, 12, 14, 18, and 21 stand rejected under 35 U.S.C. § 103(a) as unpatentable over Kramer and at least one of Boillot (US 2007/0130547 A1; June 7, 2007), Staerzl (US 7,924,164 B1; Apr. 12, 2011),

White et al. (US 2010/0083373 A1; Apr. 1, 2010), Anderson et al. (US 2010/0205667 A1; Aug. 12, 2010), and Wilson et al. (US 2013/0190089 A1; July 25, 2013).

ANALYSIS

Independent Claims 1, 13, 19, and 22

Appellants contend Kramer does not disclose a “home automation sensing device” as recited in independent claims 1, 13, 19, and 22. *See* App. Br. 9–10; Reply Br. 1–2.¹ According to Appellants, Kramer discloses controlling a computer cursor, camera, gesture control system, and “system, vehicle, or device,” none of which are a “home automation sensing device.” *See* App. Br. 9–10, 12–13. Moreover, Appellants argue the Examiner erroneously concluded the words “home automation” is a non-functional term. *Id.* at 12–13; Reply Br. 1–2.

We do not agree with Appellants that the Examiner erred in finding Kramer discloses the recited “home automation sensing device.” Neither the claims nor the written description explicitly defines the term “home automation sensing device,” but both provide guidance regarding its meaning. Claim 8, which depends from claim 1, recites “the home automation sensing device comprises one or more of a thermostat, a lighting device, a security camera, and a database of building energy consumption data, wherein control of the security camera comprises a lens adjustment for zooming in and zooming out.” App. Br. 16. Although the written description does not mention a “home automation sensing device,” the written description does describe a “home automation system,” and

¹ The Reply Brief lacks page numbers. We treat the Reply Brief as if Appellants had numbered the Reply Brief starting with its first page.

Appellants treat the terms as synonymous. *See, e.g.*, App. Br. 4 (equating the “home automation system” disclosed in the written description with the claimed “home automation sensing device”). The written description discloses that a “home automation system comprises one or more of a thermostat, a lighting device, a security camera, a smart device, a security system, and a database including data relating to building energy consumption.” Spec. ¶ 26. Thus, the broadest reasonable interpretation of “home automation sensing device” in light of the written description encompasses at least devices such as thermostats, lighting devices, cameras, and “smart devices” that include the components recited in claim 1. *In re Am. Acad. of Sci. Tech Ctr.*, 367 F.3d 1359, 1364 (Fed. Cir. 2004) (“During examination, claims . . . are to be given their broadest reasonable interpretation consistent with the specification.” (citation and internal quotation marks omitted)).

The Examiner found Kramer discloses using gestures to control a variety of remote autonomous devices, including robotic toys, cleaning robots, wheelchairs, computers, and scooters, among other things. *See* Final Act. 8–9 (citing Kramer ¶ 61). Kramer also discloses using gestures to control a camera. *See, e.g.*, Kramer ¶ 118 (explaining the disclosed invention controls a camera’s “pan/tilt/roll” and “‘zooming’ control”); *see also* App. Br. 10 (acknowledging Kramer discloses “a video or motion picture camera”). The Examiner also found—and Appellants do not dispute—“the intended space of use of [Kramer’s] invention is a home.” Ans. 22 (emphasis omitted); Reply Br. 2 (stating devices such as cleaning robots and robotic toys “admittedly could be used in a home”). Because the broadest reasonable interpretation of “home automation sensing device”

includes cameras used within a home and controlled by gestures, we agree with the Examiner that Kramer discloses a “home automation sensing device.” Moreover, one of ordinary skill in the art would understand that robotic toys, cleaning robots, computers, and the like that are used in a home and remotely controlled through user gestures are “smart devices” and therefore are also “home automation sensing devices.” We therefore find Appellants’ arguments unpersuasive.

Dependent Claim 8

As discussed above, claim 8 depends from claim 1 and recites “wherein the home automation sensing device comprises one or more of a thermostat, a lighting device, a security camera, a security system, and a database of building energy consumption data; and wherein control of the security camera comprises a lens adjustment for zooming in and zooming out.” App. Br. 16. Appellants argue the cited portions of Kramer do not disclose a “lighting device” or “a security camera . . . wherein control of the security camera comprises a lens adjustment for zooming in and zooming out.” App. Br. 10–11, 13; Reply Br. 2.

The Examiner found Kramer discloses a “lighting device” because Kramer discloses a camera that “uses light transmitted to detect objects.” App. Br. 13; Reply Br. 26–27. The Examiner also found Kramer discloses using gestures to control the zooming function of a camera. App. Br. 13; Reply Br. 26. We agree with Appellants that a “lighting device” is a device that provides light, and the Examiner has not established that Kramer’s cameras necessarily provide light. *See* Reply Br. 2. And although Kramer discloses using an operator’s gestures to control camera zooming, the

Examiner has not established Kramer discloses *controlling a lens adjustment* of a camera to zoom in or out.. See Kramer ¶ 118².

However, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Kramer's invention to control devices such a thermostats, lighting devices, and security cameras, wherein control of the security camera comprises a lens adjustment for zooming in and out. We take official notice that these devices were well known to those of ordinary skill in the art.³ The proposed modification would be no more than a combination of familiar elements according to known methods that produces predictable results. *KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398, 416 (2007). And one of ordinary skill in the art would have been further motivated to make this modification to avoid "the use of . . . physical [input] devices [that are] not natural or intuitive" and "go[ing] through certain steps to change the context of the input device so that different functions may be performed." Kramer ¶ 9. Because this analysis deviates from the Examiner's rejection, we designate our findings and conclusion to be a new

² We note that a skilled artisan would understand that disclosure of camera zooming includes lens adjustment. For example, Webster's New World College Dictionary defines "zoom" as "to change the focal length of a zoom lens so as to change the apparent distance of the object being viewed." Webster's New World College Dictionary (2010) (available at <http://www.yourdictionary.com/zoom>). This is in contrast to a digital "zoom" where image processing is used to enlarge a selected portion of an image while cropping out the surrounding area.

³ Indeed, Appellants ostensibly concede that some of these devices were known to those of ordinary skill in the art. See, e.g., Spec. ¶ 6 ("Currently, home automation and/or control systems such as home thermostats or security cameras require humans to touch them . . .").

ground of rejection for claim 8 under 35 U.S.C. § 103(a) as unpatenable over Kramer.

Dependent Claim 10

Dependent claim 10 also depends from claim 1 and recites “wherein the body movement sensor is configured to sense a plurality of persons in a room, and to adjust a function of the home automation sensing device in response to the plurality of persons in the room.” App. Br. 16. Appellants contend that, although the cited portions of Kramer disclose sensing hand gestures, “there is no disclosure of adjusting a function of a home automation device in response to a plurality of persons in a room.” App. Br. 11–12; *see also* Reply Br. 2.

As discussed above, Kramer discloses controlling a “home automation sensing device” under the broadest reasonable interpretation of the term. Kramer also discloses “[a]lthough the system is shown with a single user’s hands as input, the [Spatial Operating Environment] *may be implemented using multiple users.*” Kramer ¶ 47 (emphasis added); *see also id.* ¶ 175. Although Appellants argue paragraphs 56 and 57 of Kramer concern multiple-user control of vehicles, *see* Reply Br. 2, paragraphs 47 and 175 of Kramer do not limit the system to vehicles. Accordingly, we find Appellants’ arguments unpersuasive.

Dependent Claim 12

Dependent claim 12 depends from claim 1 and recites “wherein the computer processor is configured to treat non-recognized three dimensional body movements as an intrusion, and to execute one of [sic] more of a

sounding of an alarm, a transmitting of a message to a web site, and a transmission of a message to a hand held device.” App. Br. 17. Appellants argue the cited portions of White and Anderson fail to teach or suggest this limitation. App. Br. 12; 13; Reply Br. 2–3. In particular, Appellants contend White “only relates to an unauthorized use of a system” and Anderson “relates to preventing the disclosure of sensitive information during a Skype communication.” Reply Br. 2.

We find Appellants’ arguments unpersuasive. The Examiner found White teaches using gestures to detect unauthorized users, and Anderson teaches sounding an alarm or sending a message when an intrusion has been detected. *See* Ans. 30. The Examiner concluded a *combination* of Kramer’s, White’s, and Anderson’s teachings would have made the invention recited in claim 12 obvious to one of ordinary skill in the art. *Id.* Appellants’ arguments against the references individually have not persuaded us the Examiner erred. *See In re Keller*, 642 F.2d 413, 426 (CCPA 1981) (“[O]ne cannot show non-obviousness by attacking references individually where, as here, the rejections are based on combinations of references.”).

Remaining Claims

Appellants have not presented separate, persuasive patentability arguments for claims 2–7, 9, 11, 14–18, 20, and 21. We therefore sustain the Examiner’s rejections of these claims.

DECISION

For the above reasons, we affirm the Examiner's rejection of claims 1–7 and 9–22. We reverse the Examiner's rejection of claim 8 and enter a new ground of rejection for claim 8 under 35 U.S.C. § 103(a) over Kramer.

Section 41.50(b) provides that “[a] new ground of rejection . . . shall not be considered final for judicial review.”

Section 41.50(b) also provides that Appellants, WITHIN TWO MONTHS FROM THE DATE OF THE DECISION, must exercise one of the following two options with respect to the new ground 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.

AFFIRMED-IN-PART
37 C.F.R. § 41.50(b)