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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
15/146,324	05/04/2016	Chikashi YAJIMA	10178US02DIV	4352
154930	7590	03/12/2020	EXAMINER	
XSENSUS LLP 200 Daingerfield Road Suite 201 Alexandria, VA 22314			AYNALEM, NATHNAEL B	
			ART UNIT	PAPER NUMBER
			2488	
			NOTIFICATION DATE	DELIVERY MODE
			03/12/2020	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte CHIKASHI YAJIMA

Appeal 2018-006473
Application 15/146,324
Technology Center 2400

Before ROBERT E. NAPPI, LARRY J. HUME, and
STEPHEN E. BELISLE, *Administrative Patent Judges*.

BELISLE, *Administrative Patent Judge*.

DECISION ON APPEAL

Appellant¹ appeals under 35 U.S.C. § 134(a) from a Final Rejection of claims 1–6 and 9–20. Appeal Br. 2. An Oral Hearing was held on February 20, 2020. A transcript of the hearing will be made of record in due course. We have jurisdiction under 35 U.S.C. § 6(b).

We AFFIRM.

¹ Throughout this Decision, we use the word “Appellant” to refer to “applicant” as defined in 37 C.F.R. § 1.42 (2017). Appellant identifies the real party in interest as Sony Corporation. Appeal Br. 1.

STATEMENT OF THE CASE

The Claimed Invention

Appellant's invention generally relates to "photography using a wearable terminal device and related control processing based on sensor inputs." Spec. 1.

Claim 1, reproduced below, is illustrative of the subject matter on appeal:

1. A wearable terminal device comprising:

one or more sensors configured to output sensor data corresponding to a physiological state of a user in possession of the wearable terminal device;

a communication interface configured to

transmit the sensor data wirelessly to an information processing apparatus remote from the wearable terminal device; and

receive, wirelessly from the information processing apparatus remote from the wearable terminal device, information indicating the physiological state of the user determined by the information processing apparatus based on sensor data; and

circuitry configured to

determine a current position of the wearable terminal device; and

control, based on the information indicating the physiological state of the user and current position of the wearable terminal device, a photographing interval of a camera.

Appeal Br. 9 (Claims App.).

The Applied References

The Examiner relies on the following references as evidence of unpatentability of the claims on appeal:

Crump	US 2006/0202816 A1	Sept. 14, 2006
Sako	US 2008/0062291 A1	Mar. 13, 2008

The Examiner's Rejection

The Examiner rejected claims 1–6 and 9–20 under 35 U.S.C. § 103 as being unpatentable over the combination of Sako and Crump. Final Act. 4–7.

ANALYSIS²

Appellant disputes the Examiner's findings that the combination of Sako and Crump renders obvious claims 1–6 and 9–20. Appeal Br. 4–7; Reply Br. 1–3. Appellant argues the appealed claims as a group. *See* Appeal Br. 2 (“Claims 1, 9 and 15 recite parallel subject matter and therefore stand or fall together.”). Thus, for purposes of our analysis, we select independent claim 1 as the representative claim, and any claim not argued separately will stand or fall with our analysis of the rejection of claim 1. *See* 37 C.F.R. § 41.37(c)(1)(iv).

Appellant argues:

Sako and Crump, even if combined, fail to disclose a wearable that *receives, wirelessly from the information processing apparatus remote from the wearable terminal device, information indicating the physiological state of the user*

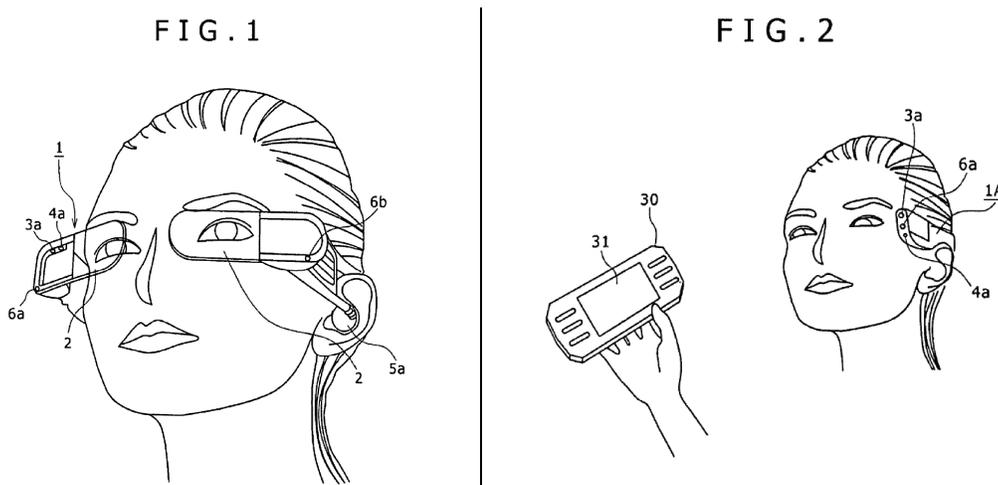
² Throughout this Decision, we have considered Appellant's Appeal Brief filed December 26, 2017 (“Appeal Br.”); Appellant's Reply Brief filed June 5, 2018; the Examiner's Answer mailed April 5, 2018 (“Ans.”); the Final Office Action mailed July 27, 2017 (“Final Act.”); and Appellant's Specification filed May 4, 2016 (“Spec.”).

determined by the information processing apparatus based on sensor data transmitted from the wearable terminal device to the information processing apparatus, as required by independent claim 1.

Appeal Br. 5. We turn to the teachings of Sako and Crump.

Sako generally relates to “an image pickup apparatus that is mounted on a user, for instance, with an eyeglass-type or head-worn mounting unit to pick up an image while regarding the user’s gaze direction as the direction of a subject,” as shown, for example, in Figures 1 and 2, reproduced below.

Sako ¶ 3, Figs. 1, 2.



Figures 1 and 2 of Sako depict typical external views of image pickup apparatuses.

Sako ¶¶ 35–36. Sako discloses image pickup apparatus 1, 1A (i.e., a “wearable terminal device”) with a pair of display sections 2 (for the right- and left-hand eyes) positioned immediately before the eyes of a user or a separate display device. Sako ¶¶ 62–63, 72, Figs. 1–2. Sako’s apparatus includes user information acquisition components, such as visual sensor 19, acceleration sensor 20, gyro 21, and biological sensor 22 (i.e., “one or more sensors”), which detect and output, for example, (a) information about the vision of the user like gaze direction, (b) motion of the user’s head, neck,

arm, leg, or entire body, and (c) biological information about the user like heartbeat, pulse, perspiration, brain wave, body temperature, blood pressure, or respiratory activity information (i.e., sensors “configured to output sensor data corresponding to a physiological state of a user in possession of the wearable terminal device”). Sako ¶¶ 121–124. These sensors “acquire the information about the motion or physical status of the user who wears the image pickup apparatus 1 (user information) and supply the acquired information to the system controller 10” (i.e., “transmit the sensor data . . . to an information processing apparatus”). Sako ¶ 125.

Sako also discloses that system controller 10 “performs a process by exercising the user status judgment function 10a and determines the intention or status of the user in accordance with the acquired user information” (i.e., “receive, . . . from the information processing apparatus . . . , information indicating the physiological state of the user determined by the information processing apparatus based on sensor data”). Sako ¶ 126. Based on the determined intention or status of the user, “system controller 10 performs a process by exercising the operational control function [10b] and exercises control over image pickup and display operations” (i.e., “circuitry configured to . . . control, based on the information indicating the physiological state of the user . . . , a photographing interval of a camera”). Sako ¶ 126; *see id.* ¶¶ 86 (disclosing “timing control function is also used to exercise variable control over the imaging frame rate”), 121, 124–126.

In addition, Sako’s image pickup apparatus includes “a built-in communication section [26] that transmits picked-up image data to an external device” (i.e., “a communication interface”). Sako ¶ 75; *see id.*

¶¶ 114 (“The communication section 26 exchanges data with an external device,” such as “a computer . . . [or] a server.”), 115 (“The communication section 26 may be configured to establish network communication, for instance, with a network access point via a short-distance wireless communication link through the use of a wireless LAN, Bluetooth, or other technology.”), 118 (“[T]he communication section 26 receives data from the external device.”).

In view of the foregoing, the Examiner finds, and we agree (with a clarification below), Sako discloses all limitations of claim 1 except: (1) circuitry configured to determine a *current position* of the wearable terminal device; and (2) a communication interface configured to transmit the sensor data *wirelessly* to an information processing apparatus *remote* from the wearable terminal device, and receive, *wirelessly* from the information processing apparatus *remote* from the wearable terminal device, information indicating the physiological state of the user determined by the information processing apparatus based on sensor data. Final Act. 5. However, to clarify the Examiner’s finding here, Sako does expressly disclose transmitting sensor data to an information processing apparatus (e.g., system controller 10) and receiving, from the information processing apparatus, information indicating the physiological state of the user determined by the information processing apparatus based on sensor data, and doing so within a wired, integrated device. But, as identified by the Examiner, Sako does not explicitly disclose splitting those activities among two separate components, one remote from the other, and wirelessly transmitting the relevant data between those separate components.

Nevertheless, the Examiner turns to Crump for these missing limitations. Final Act. 5–6.

Crump generally relates to “a wearable monitor to collect data on a patient and transmit the collected data to a centralized location with data storage, analysis, reporting and notification.” Crump ¶ 2. Crump discloses “a health care monitoring system,” including “a variety of components, such as [wearable] monitor 102, gateway 106 and server 110,” which “may *transmit data to each other and receive data from each other* through any of a variety of wireless transmission protocols.” Crump ¶ 24 (emphases added), Fig. 1; *see id.* ¶ 26 (“Server 110 may communicate with gateway 106 over network 130 to both send and receive data.”). Crump further discloses wearable monitor 102 “can use *wireless* networking components in order to send vital sign data, *location information* and medical emergency alerts,” as well as “for transmitting and receiving data wirelessly” (i.e., a communication interface configured to transmit the sensor data wirelessly to an information processing apparatus remote from the wearable terminal device; and receive, wirelessly from the information processing apparatus remote from the wearable terminal device, [various data]”). Crump ¶ 39 (emphases added). In addition, Crump discloses “monitor 102 can incorporate GPS locating capability to provide detailed location information of the wearer” (i.e., “circuitry configured to determine a current position of the wearable terminal device”). Crump ¶ 39.

In view of the foregoing, the Examiner finds, and we agree, Crump discloses “circuitry configured to determine a current position of the wearable terminal device,” and a communication interface configured to transmit the sensor data wirelessly to an information processing apparatus

remote from the wearable terminal device, and receive, wirelessly from the information processing apparatus remote from the wearable terminal device, various data. Final Act. 5–6. The Examiner concludes that it would have been obvious over the combined teachings of Sako and Crump to (1) sense device position data, and (2) separate Sako’s wired, integrated transmitting, analyzing, and receiving of sensor data, and instead wirelessly transmit the sensor data to a remote component for analysis, and wirelessly receive back analyzed data. *See* Final Act. 5–6.

Appellant argues “[a]t no point, however, does Crump teach or suggest that the server 110 provides a result of any of the processing or interpreting to the wearable terminal 102.” Appeal Br. 6; Reply Br. 1–3. We find Appellant’s argument unpersuasive, as discussed below.

First, Appellant attacks Crump individually, rather than meaningfully addressing the merits of the *combined teachings* of Sako and Crump. *See* Appeal Br. 6–7; Reply Br. 1–3. One cannot show nonobviousness by attacking references individually where the rejection is based on a combination of references. *See In re Keller*, 642 F.2d 413, 426 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 1097 (Fed. Cir. 1986).

Second, the essence of Appellant’s patentability argument is that the invention of independent claim 1 introduces wireless communication to separate the wired, integrated components of Sako. On the one hand, the prior art—Sako—discloses a wired, integrated device that transmits sensor data to an internal information processing apparatus (e.g., system controller 10) for analysis and receives back analyzed data; whereas on the other hand, the invention of claim 1 makes the information processing apparatus a *separate, remote* component, and *wirelessly* transmits the sensor

data to that remote apparatus and wirelessly receives back analyzed data. But, as noted by the Examiner (Final Act. 5–6), Sako discloses sensors integrated with a processing apparatus, and Crump teaches a split system (sensors separate from a remote processing apparatus), with wireless communication between them.

We are not persuaded by Appellant’s argument that it would not have been obvious to a skilled artisan to make Sako’s system controller a remote unit and communicate with it wirelessly like in Crump, particularly where Sako itself discloses communication section 26 for wireless communication, as discussed above (Sako ¶¶ 75, 114, 115, 118). *See In re Dulberg*, 289 F.2d 522, 523 (CCPA 1961). In *Dulberg*, the claimed structure, a lipstick holder with a removable cap, was fully met by the prior art except that in the prior art the cap is “press fitted” and therefore not manually removable. *Id.* The court held that “if it were considered desirable for any reason to obtain access to the end of [the prior art’s] holder to which the cap is applied, it would be obvious to make the cap removable for that purpose.” *Id.* In this case, if it were considered desirable for any reason to have Sako’s system controller separate from its image pickup apparatus (or wearable device), like unit cost or ease of update, then Crump teaches it would have been obvious to make the system controller remote with wireless communication for that purpose.

Based on the foregoing, we find Appellant does not show persuasively that the Examiner erred in finding independent claim 1 obvious over Sako and Crump.³

³ In the Final Action, although the Examiner rejects all pending claims as obvious over Sako and Crump, the Examiner does not expressly base

Accordingly, we sustain the Examiner’s rejection under 35 U.S.C. § 103 of independent claim 1. For similar reasons, we sustain the Examiner’s rejection under 35 U.S.C. § 103 of independent claims 9 and 15, and claims 2–6, 10–14, and 16–20 which depend therefrom, none of which were argued separately. *See* 37 C.F.R. § 41.37(c)(1)(iv).

DECISION SUMMARY

Claims Rejected	35 U.S.C. §	Reference(s)/ Basis	Affirmed	Reversed
1–6, 9–20	103	Sako, Crump	1–6, 9–20	

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).
See 37 C.F.R. § 41.50(f).

AFFIRMED

obviousness on an “obvious to try” rationale (*see* MPEP § 2143(I)(E)). In the event of further prosecution, the Examiner may wish to consider the applicability of an “obvious to try” rationale to the claimed invention, as well as other rationales that may support a conclusion of obviousness. *See generally* MPEP § 2143(I)(A–G). Although the Board is authorized to reject claims under 37 C.F.R. § 41.50(b), no inference should be drawn when the Board elects not to do so. *See* MPEP § 1213.02.