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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte WARREN DOWNING

Appeal 2019-005956
Application 15/165,125
Technology Center 3600

Before EDWARD A. BROWN, CHARLES N. GREENHUT, and
ANNETTE R. REIMERS, *Administrative Patent Judges*.

REIMERS, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

Appellant¹ appeals under 35 U.S.C. § 134(a) from the Examiner's decision to reject under 35 U.S.C. § 103: (1) claims 1–5 and 9–11 as unpatentable over Kelly (US 8,739,672 B1, issued June 3, 2014), Lebel (US 2012/0317706 A1, published Dec. 20, 2012), and Florence (US 7,121,036 B1, issued Oct. 17, 2006); and (2) claim 6 as unpatentable over Kelly, Lebel, Florence, and Goree (US 8,485,085 B2, issued July 16, 2013). Claims 7 and

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 Wilmington Savings Fund Society, FSB. Appeal Brief (“Appeal Br.”) 1, filed Mar. 25, 2019.

8 have been canceled. We have jurisdiction under 35 U.S.C. § 6(b).

We AFFIRM.

CLAIMED SUBJECT MATTER

The claimed subject matter relates to “a networked battle system.”
Spec. ¶ 12, Figs. 1, 3.

Claim 1, the sole independent claim on appeal, is representative of the claimed subject matter and recites:

1. A networked battle system comprising:
 - a communication network;
 - a first rifle;
 - a sensor for determining a bearing of the first rifle;
 - a sensor for an accelerometer;
 - a communication element coupled to the rifle allowing the sensor to provide sensor information to the communication network;
 - a battle management system in communication with the first rifle through the communication network that receives the sensor information and updates a battle plan based on the sensor information to form an updated battle plan; and
 - a heads up display unit at least in operative communication with the communication network and the communication element and that displays the updated battle plan to a user, wherein the heads up display is worn on a head of the user.

ANALYSIS

Obviousness over Kelly, Lebel, and Florence

Claims 1–5 and 9–11

Appellant does not offer arguments in favor of dependent claims 2–5 and 9–11 separate from those presented for independent claim 1. *See* Appeal Br. 3–4. We select claim 1 as the representative claim, and claims 2–5 and 9–11 stand or fall with claim 1. 37 C.F.R. § 41.37(c)(1)(iv) (2018).

Independent claim 1 is directed to a networked battle system including a heads up display unit, “wherein the heads up display [unit] is worn on a head of the user.” Appeal Br. 6 (Claims App.). The Examiner finds that Kelly discloses the networked battle system of claim 1 substantially as claimed including “a heads up display unit (user interface 616, Fig. 7, which may include a ‘heads-up display’, 11:46–49).” Final Act. 5.² The Examiner finds that “Kelly does not disclose that the heads up display 616 is worn on the head of the user.” *Id.* at 6. However, the Examiner finds that “Lebel teaches an external heads-up display (520, see Figs. 23 and 23a) having a display screen 522, the heads-up display mounted to a helmet 134[,] which is worn on the head of a user (see Fig. 10F).” *Id.* The Examiner reasons that it would have been obvious to a skilled artisan “to modify Kelly to have the heads-up display [] worn on the head of the user, as taught by Lebel, in order to receive data from the processing electronics and relay that data to the user of the system.” *Id.* (citing Kelly 11:62–65; Lebel ¶¶ 5, 6).

² Final Office Action (“Final Act.”), dated Oct. 23, 2018.

Appellant contends that “the skilled artisan would not modify [] Kelly to include the heads up display of Lebel on the user’s head.” Appeal Br. 4. In particular, Appellant contends that “Kelly teaches a system that includes a display 724 which is part of user interface device 616 for which THE WEAPON is moved to determine the field of view of” and that “[a]s the field of view is defined BY THE WEAPON, it is not the user’s head that defines that field.” Appeal Br. 3; *see also* Reply Br. 2–3.³ Therefore, according to Appellant, “moving the device 616 to the head of the user would actually make Kelly inoperative as it determines a field of view of the weapon which [would] be different than that of a user’s head.” Appeal Br. 3; *see also* Reply Br. 2–3. In other words, Appellant contends that the “display in Kelly, being tied to the weapon can only show the field of view of the weapon” and that modification of Kelly to have the heads up display worn on the head of a user would therefore render Kelly’s device unsatisfactory for its intended purpose because “[w]hen that device is moved to the head, [the device] would not show the field of view of [the] weapon but would, rather, show the field of view based on the head of the user.” Appeal Br. 3–4; *see also* Reply Br. 2–3.

The Examiner has the better position here. Kelly discloses that Figure 6 is “a schematic block diagram of a computerized system 600 for analyzing an individual’s field of view,” that “[s]ystem 600 may include one or more sensors configured to generate sensor data regarding an individual’s field of view,” such as “a tilt sensor 604, an azimuth sensor 606, one or more accelerometers 608, one or more gyro-sensors 610, a range sensor 620,

³ Reply Brief (“Reply Br.”), Aug. 7, 2019.

and/or a position sensor 614,” and that “[s]ystem 600 may also include processing electronics 602 configured to receive and process sensor data from sensors 60[4]-610⁴ and 614.” Kelly 9:47–49, 59–66, Fig. 6; *see also* Ans. 6.⁵

Kelly further discloses that “system 600 may be part of a hand-held device or may be integrated into the equipment carried by an individual (e.g., integrated into a weapon carried by an individual)” (Kelly 9:52–55, Fig. 6; *see also* Ans. 7) and that in reference to Figure 9, “sensors may be attached to firearm 900 via a Picantilly rail or integrated directly into firearm 900. The sensors attached to firearm 900 may be configured to measure data regarding a field of fire for firearm 900” (Kelly 15:48–52, Fig. 9; *see also* Ans. 7).

In other words, Kelly’s system 600 may be part of a hand-held device, or it may be integrated into the equipment carried by an individual, for example, firearm 900, and system 600 may include processing electronics 602 and one or more sensors, e.g., sensors 604, 606, 608, 610 and 614, in which processing electronics 602 are configured to receive and process sensor data from those sensors. In addition, sensors 604, 606, 608, 610 and 614 may be attached to firearm 900 via a Picantilly rail or integrated directly into firearm 900, and *those sensors (i.e., 604, 606, 608, 610, and 614) are configured to measure/generate sensor data regarding an individual’s field of view/field of fire.*

⁴ Kelly states “sensors 602-610.” Kelly 9:66. However, as reference numeral 602 represents processing electronics and elsewhere in the disclosure, Kelly references “sensors 604-610,” we consider this to be a typographical error. *See e.g.*, Kelly 11:29–31.

⁵ Examiner’s Answer (“Ans.”), dated June 7, 2019.

Additionally, Kelly discloses that (1) “[i]n some embodiments, processing electronics 602 may be configured to transmit sensor data from sensors 604-610 and 614 to another device for analysis. In other words, processing electronics 602 may be configured to relay sensor data regarding a field of view to another electronic device” (Kelly 11:29–34, Figs. 6, 7; *see also* Final Act. 3; Ans. 8–9); (2) “processing electronics 602 includes hardware interfaces (e.g., output 708) for communicating data to interface devices 616” (Kelly 12:25–28, Fig. 7; *see also* Final Act. 3–4; Ans. 7); (3) “[p]rocessing electronics 602 may also include an input 710 for receiving, for example, sensor data from sensors 604-610 and 614, . . . and data from interface devices 616” (Kelly 12:28–31, Fig. 7; *see also* Final Act. 3–4; Ans. 7); and (4) interface devices 616 refers to any electronic device configured to “receive sensory data from a user,” which may include “a heads-up display (HUD)” (Kelly 11:44–48, Figs. 6, 7; *see also* Final Act. 5).

Kelly also discloses that (1) “[i]n some embodiments, processing electronics 602 may be configured to record measurements regarding a field of view in response to receiving a request from interface devices 616” (Kelly, 11:49–52, Figs. 6, 7; *see also* Final Act. 3); (2) “[i]n another example, a display [724] in interface devices 616 may receive an indication of an adjusted position or orientation from processing electronics 602” (Kelly, 11:66–12:2, Figs. 6, 7); and (3) “[p]rocessing electronics 602 may provide the display data to display 724” (Kelly, 13:16–17, Fig. 7; *see also* Ans. 7).

In other words, Kelly’s processing electronics 602 communicate with interface devices 616 via hardware input 710 and output 708 interfaces. For example, processing electronics 602 receive sensor data from sensors 604,

606, 608, 610 and 614 regarding a field of view of the weapon via input 710 and relay that data via output 708 to interface devices 616 (i.e., another electronic device). Similarly, processing electronics 602 receive sensor data from sensors 604, 606, 608, 610 and 614 regarding an adjusted position or orientation of the weapon via input 710 and relay that data via output 708 to display 724 in interface devices 616. In another example, processing electronics 602 receive a request via input 710 from interface devices 616 for processing electronics 602 to record measurements regarding a field of view of the weapon.

Based on the above-cited disclosure from Kelly, we agree with the Examiner that “sensors 604-610, [and] 614,” which are attached to or integrated directly into firearm 900 of Kelly, “determine the field of view of the weapon NOT user interface device 616 as asserted by the Appellant.” Ans. 8–9; *see also* Final Act. 2–4. We also agree with the Examiner that there is no teaching or suggestion in Kelly that movement of “interface device 616” to the head of a user would “show the field of view based on the head of the user’ as asserted by Appellant.” Ans. 8–9; *see also* Final Act. 2–4. We further agree with the Examiner that “Kelly would not lead one skilled in the art to conclude that movement of the interface device 616 to the head of a user would render Kelly’s device unsatisfactory for its intended purpose of collecting weapon associated field of view data.” Ans. 8–9; *see also* Final Act. 2–4.

Additionally, as correctly noted by the Examiner, Figure 7 of Kelly illustrates that interface device 616 is “a device that is *distinct and separate* (i.e., ‘another electronic device’) from [] processing electronics 602[,] thus enabling independent movement of user interface device(s) 616 relative to []

processing electronics 602 and sensors 604-610, 614 *without altering the field of view data collected by weapon mounted sensors.*” Ans. 9 (emphasis added); *see also id.* at 8; Final Act. 3–4; Kelly Figs. 6, 7.

Moreover, we note Kelly discloses that (1) system 600 “may include one or more user interface devices 616” (Kelly 11:43–44, Figs. 6, 7; *see also* Final Act. 3); (2) system 600 “may be integrated into the equipment carried by an individual” (Kelly 9:52–54, Figs. 6, 7; *see also* Ans. 7); and (3) interface device 616 may include “a heads-up display (HUD)” that “receive[s] sensory data from a user” (Kelly 11:44–48, Figs. 6, 7; *see also* Final Act. 3, 5). We further note that Kelly’s interface device 616 is illustrated as a distinct and separate device of system 600. *See* Kelly Figs. 6, 7; *see also* Final Act. 3–4; Ans. 8–9.

As such, under the broadest reasonable interpretation, we agree with the Examiner that a skilled artisan would have been motivated to look to Lebel’s disclosure of external heads-up display 520 mounted to helmet 134, which is worn on an individual’s head, in order to modify Kelly’s heads-up display (HUD) 616, such that Kelly’s heads-up display HUD 616 could be worn on an individual’s head (i.e., Kelly’s heads-up display HUD 616 would be integrated into the equipment (e.g., a helmet) carried/worn by the individual), as called for in claim 1. *See* Final Act. 5–6; *see also* Kelly 9:52–54, 11:43–48, Figs. 6, 7; Lebel ¶ 174, Figs. 23, 23A.

In summary, and based on the record presented, we are not persuaded the Examiner erred in rejecting independent claim 1 as unpatentable over Kelly, Lebel, and Florence.⁶ Accordingly, we sustain the Examiner’s

⁶ The Examiner looks to the teachings of Florence for disclosure of a “rate gyroscope.” Final Act. 6. Appellant does not apprise us of error in this

rejection of claim 1. We further sustain the rejection of claims 2–5 and 9–11, which fall with claim 1.

Obviousness over Kelly, Lebel, Florence, and Goree

Claim 6

Appellant does not present arguments for claim 6 separate from those presented for claim 1. *See* Appeal Br. 3–4. As we find no deficiencies in the Examiner’s rejection of claim 1 as unpatentable over Kelly, Lebel, and Florence, for the reasons discussed above, we likewise sustain the Examiner’s rejection of claim 6 as unpatentable over Kelly, Lebel, Florence, and Goree.

CONCLUSION

In summary:

Claims Rejected	35 U.S.C. §	Reference(s)/Basis	Affirmed	Reversed
1–5, 9–11	103	Kelly, Lebel, Florence	1–5, 9–11	
6	103	Kelly, Lebel, Florence, Goree	6	
Overall Outcome			1–6, 9–11	

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a). *See* 37 C.F.R. § 1.136(a)(1)(iv).

AFFIRMED

finding by the Examiner. *See* Appeal Br. 2–4; *see also* Reply Br. 2–3.