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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
14/467,413	08/25/2014	Richard Ruiterkamp	NMR-38390	4128
40854	7590	08/20/2020	EXAMINER	
RANKIN, HILL & CLARK LLP 38210 GLENN AVENUE WILLOUGHBY, OH 44094-7808			NGUYEN, VIET P	
			ART UNIT	PAPER NUMBER
			2832	
			NOTIFICATION DATE	DELIVERY MODE
			08/20/2020	ELECTRONIC

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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte RICHARD RUITERKAMP

Appeal 2019-002149
Application 14/467,413
Technology Center 2800

Before KAREN M. HASTINGS, DONNA M. PRAISS, and
CHRISTOPHER L. OGDEN, *Administrative Patent Judges*.

HASTINGS, *Administrative Patent Judge*.

DECISION ON APPEAL

Appellant¹ requests our review under 35 U.S.C. § 134 of the Examiner's final decision rejecting claims 1–15 under 35 U.S.C. § 103 as being unpatentable over the combined prior art of Bevirt (US 2010/0032948 A1, Feb. 11, 2010), Bilaniuk (US 2011/0101692 A1, May 5, 2011), and Calverley (US 2011/0266809 A1, Nov. 3, 2011). We have jurisdiction over the appeal under 35 U.S.C. § 6(b).

We AFFIRM.

¹ We use the word “Appellant” to refer to “applicant” as defined in 37 C.F.R. § 1.42(a). Appellant identifies the real party in interest as Ampyx Power B.V. (Appeal Br. 3).

CLAIMED SUBJECT MATTER

Claim 1 is illustrative of the subject matter on appeal (emphasis added to highlight key limitation in dispute):

1. A system for electric power production from wind comprising:
 - a tether;
 - a fixed wing aircraft in a form of a glider, said glider comprising
 - a fuselage,
 - a fixed main wing that comprises an airfoil,
 - controllable on-board steering devices having control surfaces for aerodynamically exerting torque on the glider *to induce pitching, rolling and yawing of the glider in flight,*
 - a flight controller for controlling operation of the on-board steering devices, and
 - a connection unit for the tether;
 - a ground station, said ground station comprising
 - a reel for the tether,
 - a rotating electrical machine connected to the reel, and
 - a ground station controller for controlling operation of the reel and the rotating electrical machine; and
 - a master controller configured to communicate with the flight controller to operate the glider in at least two alternating operation modes, namely
 - a first operation mode in which the glider is steered using the on-board steering devices to follow a first pattern that generates a lift force via the airfoil of the glider being exposed to the wind that pulls on and reels out the tether from the reel thereby inducing rotation of the reel which is converted into electric power via the rotating electrical machine connected to the reel, and
 - a second operation mode in which the glider is steered using the onboard steering devices to follow a second flight pattern that reduces the pull on the tether as compared to the first operation mode and the tether is

reeled onto the reel by driving the reel with the rotating electrical machine connected to the reel;
wherein said flight controller *is also configured to control the on-board steering devices to steer the glider on a stable, controlled flight path and thereby safely land the glider when the tether breaks and thus there is no connection between the glider and the ground station provided by the tether.*

(Claims App. Appeal Br. 20–21).

Appellant argues the claims as a group, focusing on claim 1 (Appeal Br. 12–19).

ANALYSIS

We review the appealed rejection for error based upon the issues identified by Appellant and in light of the arguments and evidence produced thereon. *Ex parte Frye*, 94 USPQ2d 1072, 1075 (BPAI 2010) (precedential), *cited with approval in In re Jung*, 637 F.3d 1356, 1365 (Fed. Cir. 2011) (“[I]t has long been the Board’s practice to require an applicant to identify the alleged error in the examiner’s rejections”). After considering the evidence presented in this Appeal and each of Appellant’s arguments, we are not persuaded that Appellant identifies reversible error. Thus, we affirm the Examiner’s rejection for the reasons expressed in the Final Office Action and the Answer.

We add the following for emphasis.

It has been established that “the [obviousness] analysis need not seek out precise teachings directed to the specific subject matter of the challenged claim, for a court can take account of the inferences and creative steps that a person of ordinary skill in the art would employ.” *KSR Int’l Co. v. Teleflex*

Inc., 550 U.S. 398, 418 (2007); *see also In re Fritch*, 972 F.2d 1260, 1264–65 (Fed. Cir. 1992) (a reference stands for all of the specific teachings thereof as well as the inferences one of ordinary skill in the art would have reasonably been expected to draw therefrom).

The Examiner finds that Bevirt discloses many of the claim limitations, but relies upon Bilaniuk to exemplify the obviousness of using controllable on-board steering devices to induce pitching, rolling, and yawing of the glider in flight, and relies upon Calverley to exemplify a flight controller configured to land a glider safely when the tether breaks (Final Action 3–5).

Appellant mainly contends that (1) Bilaniuk is directed to a lighter-than-air craft/glider versus Bevirt’s heavier-than-air craft/glider, so its control of the steering devices is different than Bevirt’s and thus cannot render obvious the modification of Bevirt as proposed by the Examiner (Appeal Br. 13–15; Reply Br. 2–3), and (2) the Examiner has misread the teachings of Calverley such that the flight controller configured to land the glider safely when the tether breaks does not encompass or is not rendered obvious by Calverley’s teachings (Appeal Br. 15–18; Reply Br. 4–7). Appellant contends the Examiner has used impermissible hindsight in combining these references (Appeal Br. 19).

Appellant’s arguments are not persuasive of reversible error as they fail to consider the applied prior art as a whole and the inferences that one of ordinary skill would have made. We note that “[t]he test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference. . . . Rather, the test is what the combined teachings of [those] references would have suggested

to those of ordinary skill in the art.” *In re Keller*, 642 F.2d 413, 425 (CCPA 1981). *See also In re Nievelt*, 482 F.2d 965, 968 (CCPA 1973) (“Combining the *teachings* of references does not involve an ability to combine their specific structures.”).

As the Examiner points out, Bilaniuk exemplifies that steering devices on flying gliders may control pitch, roll, and yaw, “which is widely known in the field of flight and aerodynamics (such as commercial airplanes)” (Ans. 3). These steering devices are used to position and move the aircraft glider based on wind conditions to optimize power generation. Appellant has not shown reversible error in the Examiner’s determination that one of ordinary skill in the art, using no more than ordinary creativity, would have modified Bevirt’s glider which is also used to generate power from the wind to include steering devices that induce “pitching, rolling, and yawing of the glider in flight” as recited in claim 1.

Likewise, even assuming that Appellant is correct that the details of Calverley’s safe landing control for its power-generating wind gyroglider differ somewhat from the Examiner’s summary of Calverley (Ans. 4; Reply Br. 4, 5), Appellant has not shown reversible error in the Examiner’s determination that one of ordinary skill in the art, using no more than ordinary creativity, would have modified Bevirt’s power generating glider flight controller to control and include steering devices that allow it to safely land when the tether breaks as exemplified in Calverley and as recited in claim 1. *KSR Int’l Co.*, 550 U.S. at 417 (“[I]f a technique has been used to improve one device, and a person of ordinary skill in the art would recognize that it would improve similar devices in the same way, using the technique is obvious unless its actual application is beyond his or her skill.”); *Cf. DyStar*

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Textilfarben GmbH & Co. Deutschland KG v. C.H. Patrick Co., 464 F.3d 1356, 1368 (Fed. Cir. 2006) (“Indeed, we have repeatedly held that an implicit motivation to combine exists not only when a suggestion may be gleaned from the prior art as a whole, but when the ‘improvement’ is technology-independent and the combination of references results in a product or process that is more desirable, for example, because it is stronger, cheaper, cleaner, faster, lighter, smaller, more durable, or more efficient.”).

Accordingly, we sustain the § 103 rejection of all of the claims on appeal.

CONCLUSION

The decision of the Examiner is affirmed.

DECISION SUMMARY

In summary:

Claims Rejected	35 U.S.C. §	Reference(s)/Basis	Affirmed	Reversed
1–15	103	Bevirt, Bilaniuk, Calverley	1–15	

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).

AFFIRMED