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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte YOSHIYUKI AMANO

Appeal 2017-002104
Application 13/372,698
Technology Center 3700

Before MICHAEL C. ASTORINO, BENJAMIN D. M. WOOD, and
PHILIP J. HOFFMANN, *Administrative Patent Judges*.

HOFFMANN, *Administrative Patent Judge*.

DECISION ON APPEAL
STATEMENT OF THE CASE

Pursuant to 35 U.S.C. § 134(a), Appellant¹ appeals from the Examiner's rejection of claims 1–12. We have jurisdiction under 35 U.S.C. § 6(b).

We REVERSE.

According to Appellant, the “invention relates to a blade attaching method a power generating apparatus of renewable energy type, which transmits rotation energy of a blade rotated by renewable energy to a generator to generate power.” Spec. ¶ 1. Claim 1 is the sole independent

¹ According to Appellant, “[t]he real party in interest is Mitsubishi Heavy Industries, Ltd.” Appeal Br. 2.

claim on appeal. Below, we reproduce claim 1 as representative of the appealed claims.

1. A blade attaching method for a power generating apparatus of renewable energy type which comprises a blade, a hub having a blade attaching part to which the blade is attached and a bearing which supports the blade attaching part rotatably, a generator to which a torque is inputted from a side of a rotor including the blade and the hub, and a pitch drive mechanism which adjusts a pitch angle of the blade by rotating the blade attaching part, the method comprising the steps of:

holding the blade in such a manner that the blade attaching part of the hub faces a blade root part of the blade;

rotating the blade attaching part to a set angular position by the pitch drive mechanism in such a state that the blade is held; and

after rotating the blade attaching part to the set angular position, fixing the blade to the hub, the power generating apparatus further comprising:

a plurality of the blades;

a plurality of the pitch drive mechanisms provided to correspond to the plurality of the blades;

a plurality of existing control panels provided for respectively controlling the plurality of the pitch drive mechanisms to adjust the pitch angle of each blade during normal operation of the power generating apparatus, the method further comprising:

connecting a temporary control panel with the plurality of existing control panels, the temporary control panel including a plurality of control circuits which are provided respectively for the plurality of existing control panels and configured to control each pitch angle of the plurality of blades; and

then selecting a corresponding one of the plurality of the control circuits, which corresponds to one of the existing control panels provided for the pitch drive mechanism of the blade attaching part to be rotated using a switching circuit of the

temporary control panel, before the step of rotating the blade attaching part,

wherein

the pitch angle of the blade attaching part to be rotated is adjusted using the control circuit selected by the temporary control panel in the step of rotating the blade attaching part.

REJECTIONS AND PRIOR ART

The Examiner rejects the claims as follows:

- I. Claims 1–12 under 35 U.S.C. § 112, second paragraph, as indefinite for failing to particularly point out and distinctly claim the subject matter that Appellant regards as the invention; and
- II. Claims 1–11 under 35 U.S.C. § 103(a) as unpatentable over Wobben (US 2009/0058096 A1, pub. Mar. 5, 2009), Langen et al. (US 2011/0206510 A1, pub. Aug. 25, 2011) (hereinafter “Langen”), Iversen (US 2011/0173811 A1, pub. July 21, 2011), and Pedersen (US 2009/0324380 A1, pub. Dec. 31, 2009).

ANALYSIS

Rejection I

The Examiner rejects claims 1–12 as indefinite, based on the following:

Claim 1 recites *a temporary control panel*. The word *temporary* is a relative term that renders the claim indefinite. It is not clear how long or short the control panel must exist before it is no longer temporary. A person of ordinary skill has no way of knowing how long a control panel may remain attached before it ceases to be a temporary control panel and becomes a mere

control panel. [Appellant's] [S]pecification further complicates the issue [because it states] that the so called temporary control panel *may be installed permanently*. . . . Thus, the [S]pecification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention.

Answer 2 (citation omitted). Based on our review, we disagree with the Examiner that “one of ordinary skill in the art would not be reasonably apprised of the scope of the invention.” *Id.* Notwithstanding that the control panel under discussion is described as “temporary,” claim 1 expressly describes the claimed “temporary control panel,” and differentiates the temporary panel from the claimed “plurality of existing control panels.” For example, the claim recites that the “plurality of existing control panels [are] provided for respectively controlling the plurality of the pitch drive mechanisms to adjust the pitch angle of each blade during normal operation of the power generating apparatus,” and thereafter the “temporary control panel” is “connect[ed] . . . with the plurality of existing control panels, the temporary control panel including a plurality of control circuits which are provided respectively for the plurality of existing control panels and configured to control each pitch angle of the plurality of blades.” Appeal Br., Claims App. (Claim 1). Restated, the claim recites that the “temporary control panel” is connected to a configuration that already includes the “plurality of existing control panels,” so that the temporary control panel is able “to control each pitch angle of the plurality of blades.” *Id.*

Based on our review of the Examiner's determinations regarding the use of the term “temporary” (*see* Non-Final Action 2–3, 9; *see* Answer 2, 8–10), and Appellant's responsive arguments (*see* Appeal Br. 9–19; *see* Reply Br. 5–22), the Examiner does not support the finding that the claim is

indefinite because the claim does not recite “how long or short the control panel must exist before it is no longer temporary” (Answer 2). Thus, based on the foregoing, we do not sustain the Examiner’s indefiniteness rejection of claims 1–12.

Rejection II

As set forth above, independent claim 1 recites, in relevant part, “a plurality of existing control panels provided for respectively controlling the plurality of the pitch drive mechanisms to adjust the pitch angle of each blade during normal operation of the power generating apparatus.” Appeal Br., Claims App. (Claim 1). The Examiner relies on Langen to disclose this claim recitation. Answer 4. More specifically, the Examiner finds the following:

Langen teaches a control system (36) coupled to the plurality of pitch drive systems. . . . *It is unclear, based on the text of the reference if Langen i[n] the first embodiment is one in which three sub-controllers each control an individual blade or a single control system sends separate signals to each blade. The former would explicitly teach this feature. [The] Examiner takes the position that it is the former based on the next paragraph [of Langen], which states that “in the exemplary embodiment control system 36 is shown as being centralized within the nacelle 16, however, control system 36 may be a distributed system throughout the wind turbine 10.”* If only a single control system existed, the system could not be distributed to multiple locations. [Thus, the] Examiner concludes that Langen has embodiments with multiple sub-controllers each controlling an individual blade.

Answer 4 (emphases added) (citation to Langen ¶¶ 28–29 omitted); *see also* Non-Final Action 4–5. Thus, the Examiner seems to rely on unidentified “sub-controllers” from Langen’s control system 36 to disclose the multiple existing control panels, as claimed. Based on our review of the record, the

Examiner does not support adequately the Examiner's conclusion reached in accordance with the above discussion. For example, we disagree with the Examiner that "[i]f only a single control system existed, the system could not be distributed to multiple locations." Answer 4; *see also id.* at 10. In particular, we see no reason why elements of a single control system, which includes only a single sub-controller or single control panel, could not be distributed throughout Langen's wind turbine. *See, e.g.,* Appeal Br. 23–31.

Thus, based on the foregoing, we do not sustain the Examiner's obviousness rejection of claim 1. Further, we do not sustain the rejection of claims 2–11 that depend from claim 1, for similar reasons.

DECISION

We REVERSE the Examiner's rejection of claims 1–12 under 35 U.S.C. § 112, second paragraph.

We REVERSE the Examiner's rejection of claims 1–11 under 35 U.S.C. § 103(a).

REVERSED