

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte TOM KUSIC

Appeal 2007-4195
Application 10/651,948
Technology Center 3600

Decided: March 14, 2008

Before MURRIEL E. CRAWFORD, DAVID B. WALKER, and BIBHU R.
MOHANTY, *Administrative Patent Judges*.

MOHANTY, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

The Appellant seeks our review under 35 U.S.C. § 134 of the final rejection of claims 1, 3-5, 7, 9-13, 15-17, 19, 21-25, 27-29, 31, and 33-36.

Claims 2, 6, 8, 14, 18, 20, 26, 30, and 32 are no longer under rejection.¹ We have jurisdiction under 35 U.S.C. § 6(b) (2002). Only those arguments actually made by Appellant have been considered in this Decision. Arguments which Appellant could have made but chose not to make in the Brief have not been considered and are deemed to be waived. *See* 37 C.F.R. § 41.37(c)(1)(vii) (2007). We AFFIRM.

THE INVENTION

The Appellant's claimed invention is directed to an aircraft with a rotor assembly which includes blades and a rotor. A tilt enabling joint allows a main engine assembly and the rotor assembly to be tilted together relative to the main body of the aircraft for controlling the directional travel of the aircraft. An additional engine assembly is also attached to the aircraft. (Spec. 6). Claim 1, reproduced below, is representative of the subject matter of appeal.

1. A vertical take-off aircraft, comprising a main rotor assembly, at the top of the aircraft, which said main rotor assembly is comprised of an assembly of blades and a rotor, and such that the said main rotor assembly is above a main body of the aircraft, with vertical lift being achieved by means of an engine assembly rotating the main rotor assembly thereby forcing air in a downward direction by way of the blades in the main rotor assembly, which engine assembly is the main engine assembly of the aircraft, and which said blades are above

¹ The Appeal Brief states that claims 1-36 are rejected and seeks review of all the claims. As noted in the Examiners Answer at page 3, the rejection of claims 2, 6, 8, 14, 18, 20, 26, 30, and 32 has been withdrawn. Accordingly, we only consider the rejections of those claims that are actually under rejection.

the main engine assembly, and which said main engine assembly is connected to the main body of the aircraft by a tilt enabling joint, such that the main rotor assembly and main engine assembly can be tilted together as a unity in a plurality of directions and angles relative to the main body of the aircraft, in a controlled manner, such that the direction of travel of the aircraft is altered by altering the direction or angle of tilt of the main engine assembly relative to the main body of the aircraft, and which said tilt enabling joint is connected to the main body of the aircraft, with a secondary rotor assembly, consisting of an assembly of blades and a rotor, connected to the aircraft, which said secondary rotor assembly is used to force air to travel in a horizontal direction, for which said secondary rotor assembly rotation is achieved by means of an additional engine assembly, such that by forcing air to travel in a horizontal direction, relative to the main body of the aircraft, the rotational force exerted on the main body of the aircraft by the rotation of the main rotor assembly can be countered.

THE REJECTIONS

The Examiner relies upon the following as evidence in support of the rejections:

Eickmann

US 4,358,073

Nov. 9, 1982

Amendment after Non-Final Rejection submitted by Appellant on May 18, 2005(hereinafter referred to as Appellant's admission of obviousness).

Answers.comTM definition of word Engine (*American Heritage Dictionary* (4th Ed. 2004), <http://www.answers.com/engine?cat=technology&print=true> (last visited July 24, 2007)).

The following rejections are before us for review:

1. Claims 1, 5, and 13 are rejected under 35 U.S.C. § 102(b) as anticipated by Eickmann.

2. Claims 3-4, 7, 9-12, 15-17, 19, 21-25, 27-29, 31, 33-36 are rejected under 35 U.S.C. § 103(a) as anticipated by Eickmann over the Appellant's admission of obviousness.

THE ISSUE

The first issue is whether the Appellant has shown that the Examiner erred in rejecting the claims 1, 5, and 13 as being anticipated by Eickmann. This issue turns on whether Eickmann discloses an "engine" as recited in the claims.

The second issue is whether the Appellant has shown that the Examiner erred in rejecting the claims 3-4, 7, 9-12, 15-17, 19, 21-25, 27-29, 31, and 33-36 as obvious over Eickmann and the Appellant's admission of obviousness. This issue also turns on whether Eickmann discloses an "engine" as recited in the claims since the Appellant has not argued for the patentability of these claims on any separate issues.

FINDINGS OF FACT

We find the following enumerated findings of fact are supported at least by a preponderance of the evidence²:

1. *Webster's New World Dictionary, Third College Edition* (1988), lists the primary definition of "engine" as: any machine that uses energy to develop mechanical power; esp., a machine for transmitting motion to some other machine.

² See *Ethicon, Inc. v. Quigg*, 849 F.2d 1422, 1427 (Fed. Cir. 1988) (explaining the general evidentiary standard for proceedings before the Patent Office).

2. Eickmann discloses a motor (387) which drives the propeller (388) (Fig. 24; Col. 18:1-3). The motor (387) may be one of the figures of the Eickmann specification or a related motor allowing the propeller (388) auto rotation (Col. 18:3-7). The motor (387) provides power to the propeller (388) (Col. 17-18).
3. Eickmann discloses that the motor (387) may be pivotably borne in a holder (384) with a bearing portion (385) to incline the axis of the motor. (Fig. 24; Col. 18:7-12).

PRINCIPLES OF LAW

Principles of Law Relating to Anticipation

“A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference.” *Verdegaal Bros. v. Union Oil Co.*, 814 F.2d 628, 631, (Fed. Cir. 1987). Analysis of whether a claim is patentable over the prior art under 35 U.S.C. § 102 begins with a determination of the scope of the claim. We determine the scope of the claims in patent applications not solely on the basis of the claim language, but upon giving claims their broadest reasonable construction in light of the specification as it would be interpreted by one of ordinary skill in the art. *In re Am. Acad. of Sci. Tech. Ctr.*, 367 F.3d 1359, 1364 (Fed. Cir. 2004).

Principles of Law Relating to Obviousness

“Section 103 forbids issuance of a patent when ‘the differences between the subject matter sought to be patented and the prior art are such

that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains.’” *KSR Int’l Co. v. Teleflex Inc.*, 127 S.Ct. 1727, 1734 (2007). The question of obviousness is resolved on the basis of underlying factual determinations including (1) the scope and content of the prior art, (2) any differences between the claimed subject matter and the prior art, (3) the level of skill in the art, and (4) where in evidence, so-called secondary considerations. *Graham v. John Deere Co.*, 383 U.S. 1, 17-18, (1966). *See also KSR*, 127 S.Ct. at 1734 (“While the sequence of these questions might be reordered in any particular case, the [*Graham*] factors continue to define the inquiry that controls.”)

In *KSR*, the Supreme Court emphasized “the need for caution in granting a patent based on the combination of elements found in the prior art,” *id.* at 1739, and discussed circumstances in which a patent might be determined to be obvious. In particular, the Supreme Court emphasized that “the principles laid down in *Graham* reaffirmed the ‘functional approach’ of *Hotchkiss*, 11 How. 248.” *KSR*, 127 S.Ct. at 1739 (citing *Graham*, 383 U.S. at 12 (emphasis added)), and reaffirmed principles based on its precedent that “[t]he combination of familiar elements according to known methods is likely to be obvious when it does no more than yield predictable results.” The Court also stated “[i]f a person of ordinary skill can implement a predictable variation, § 103 likely bars its patentability.” *Id.* at 1740. The operative question in this “functional approach” is thus “whether the improvement is more than the predictable use of prior art elements according to their established functions.” *Id.*

ANALYSIS

The Appellant first argues that the rejection of claims 1, 5, and 13 as anticipated by Eickmann is improper because the “motor” of Eickmann is not an engine assembly as required in the claims (Br. 3-4). The Appellant argues that the “fluid motor” of Eickmann is not an “engine” but a “transmission unit.” We disagree. We determine the scope of the claims in patent applications by giving the claim language its broadest reasonable construction in light of the specification as it would be interpreted by one of ordinary skill in the art. *In re Am. Acad. of Sci. Tech. Ctr.*, 367 F.3d at 1364. Giving the term “engine” in claim 1 its broadest reasonable interpretation in view of the Specification, Eickmann’s motor assembly (387) may be considered a “engine” since it will use energy to develop mechanical power and transmit motion to the propeller blades (388) meeting the definition of an “engine” (FF 1 and 2). The Specification does not provide a definition of an “engine” that is inconsistent with our definition, and we decline to read a specific embodiment of an engine from the detailed description into the claim.

The Appellant also argues that the engine of Eickmann does not have tilting ability (Br. 5). We disagree. Eickmann discloses a bearing assembly (385) which allows the motor (387) to be pivotably borne and tilt relative to its axis (FF 3).

For the above reasons, the Appellant’s arguments do not persuade us that the Examiner erred in rejecting claims 1, 5, and 13 under 35 U.S.C. § 102(b) as being anticipated by Eickmann and the rejection of these claims is affirmed.

The Appellant's arguments for claims 3-4, 7, 9-12, 15-17, 19, 21-25, 27-29, 31, and 33-36 under 35 U.S.C. § 103(a) are the same as those addressed above. The rejection of these claims which the Appellant has not separately argued apart from claim 1 is also sustained for the reasons above. Arguments which Appellant could have made with respect to these claims but chose not to make in the Brief have not been considered and are deemed to be waived. *See* 37 C.F.R. § 41.37(c)(1)(vii) (2007).

CONCLUSIONS OF LAW

We conclude that Appellant has failed to show that the Examiner erred in rejecting claims 1, 5, and 13 under 35 U.S.C. § 102(b) as being anticipated by Eickmann.

We conclude that Appellant has failed to show that the Examiner erred in rejecting claims 3-4, 7, 9-12, 15-17, 19, 21-25, 27-29, 31, and 33-36 under 35 U.S.C. § 103(a) as being obvious over Eickmann over the Appellant's admission of obviousness.

DECISION

The Examiner's rejection of claims 1, 3-5, 7, 9-13, 15-17, 19, 21-25, 27-29, 31, and 33-36 is AFFIRMED.

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) (2007).

AFFIRMED

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