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Table with 5 columns: APPLICATION NO., FILING DATE, FIRST NAMED INVENTOR, ATTORNEY DOCKET NO., CONFIRMATION NO.
14/062.634 10/24/2013 John D. Venables 02862-P0021B 3166

24126 7590 09/13/2018
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EXAMINER

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ART UNIT PAPER NUMBER

3669

NOTIFICATION DATE DELIVERY MODE

09/13/2018

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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte JOHN D. VENABLES, CHRISTOPHER M. PAPPAS, and
BENTON H. SCHAUB JR.

Appeal 2018-001653
Application 14/062,634¹
Technology Center 3600

Before JOSEPH A. FISCHETTI, MICHAEL C. ASTORINO, and
PHILIP J. HOFFMANN, *Administrative Patent Judges*.

ASTORINO, *Administrative Patent Judge*.

DECISION ON APPEAL

The Appellants appeal under 35 U.S.C. § 134 from the Examiner’s decision rejecting claims 1–5, 7, 8, 10–20, and 22–29. We have jurisdiction over the appeal under 35 U.S.C. § 6(b).

We REVERSE.

¹ According to the Appellants, “[t]he real party in interest is Naiad Maritime Group, Inc.” Appeal Br. 2.

STATEMENT OF THE CASE

Subject Matter on Appeal

The Appellants' invention relates to "a ship motion control system [that] may rely on calculating a prediction of anticipated sea conditions so that adjustments can be made in advance," which "includes both sensed approaching conditions (e.g., already existing conditions approaching ship) and calculated future conditions (e.g., not yet existing conditions)."

Spec. ¶ 17.

Claims 1, 20, and 23 are the independent claims on appeal. Claim 1, reproduced below, is illustrative of the subject matter on appeal.

1. A motion control system for a seafaring vessel, comprising:

one or more sensors generating current sea condition data;
a storage having historical sea condition data stored

thereon;

at least one control system; and

a computer having:

an analyzer receiving the current sea condition data and the historical sea condition data and determining a not yet existing predicted sea condition anticipated to be encountered by the vessel in the future based at least in part on both the current sea condition data and the historical sea condition data;

a calculator calculating one or more commands in preparation for the predicted sea condition determined by the analyzer; and

an interface communicating the one or more commands calculated by the calculator to the at least one control system;

wherein the at least one control system automatically implements at least one of the one or more commands calculated by the calculator in response to the predicted sea condition determined by the analyzer;

wherein the one or more sensors are configured to measure sea conditions in the seafaring vessel's near and far fields when the vessel is underway to characterize sea conditions such that

the sea condition data relates to sea conditions in both the seafaring vessel's far field and near field, the far field being defined as four or more wavelengths from the vessel;
the near field being between the vessel and the far field;
wherein the not yet existing predicted sea condition is in the far field.

Rejections

The following Examiner's rejections are before us for review.²

Claims 1–5, 7, 8, 10, 12, 14–20, and 22–28 stand rejected under 35 U.S.C. § 103 as unpatentable over Spinka (US 5,787,832, iss. Aug. 4, 1998) and Smith (US 7,029,340 B2, iss. Apr. 18, 2006).

Claim 11 stands rejected under 35 U.S.C. § 103 as unpatentable over Spinka, Smith, and Oehlgrien (US 2010/0094491 A1, pub. Apr. 15, 2010).

Claims 13 and 29 stand rejected under 35 U.S.C. § 103 as unpatentable over Spinka, Smith, and Chun (US 8,215,252 B1, iss. July 10, 2012).

PRINCIPLES OF LAW

“After a prima facie case of obviousness has been made and rebuttal evidence submitted, all the evidence must be considered anew.” *In re Eli Lilly & Co.*, 902 F.2d 943, 945 (Fed. Cir. 1990) (citing *In re Piasecki*, 745 F.2d 1468, 1472 (Fed. Cir. 1984)); *Piasecki*, 745 F.2d at 1472 (“Prima facie obviousness is a legal conclusion, not a fact. Facts established by rebuttal evidence must be evaluated along with the facts on which the earlier

² The Examiner has withdrawn the rejections of: claims 1, 20, and 23 under 35 U.S.C. § 112; and claims 1–5, 7, 8, 10–20, and 22–29 under 35 U.S.C. § 101. Ans. 2.

conclusion was reached, not against the conclusion itself.” (citations omitted)).

ANALYSIS

For the rejections of independent claims 1, 20, and 23, the Examiner’s rationale for combining the teachings of Spinka and Smith is embodied in the following statement in the Answer:

In this case, Spinka is drawn towards a system of controlling a stabilization system based on waves in the vicinity of vessel. The Smith reference determines an optimal travel path while “observing near, mid and far field sea surface.” Therefore the combination teaches the metes and bounds of the claims and the motivation to combine the Spinka and Smith references was in order to *ensure a safe travel of a ship*. The motivation to combine stems from an ordinary person of skill in the art and it would further be obvious to modify Spinka to search the far field as taught by Smith due to the fact that Spinka only has near field capabilities and by modifying Spinka to search the far field, the system of Spinka would be able to predict and determine *smooth, calm waters* so you don’t have to use the stabilizing system of Spinka as much which therefore would *improve the durability* of the Spinka system. The durability would be improved through the searching of the far field and determining the sea conditions in the future in order to determine an optimal travel path of which would lead to a *safer path* being traveled by the vessel and then by travelling safer or calmer waters, the system of Spinka would *last longer* as a result of not having to perform rapid transitions of the stabilizers as well as *reducing the total number of stabilization controls* that would have to be performed. Therefore a person of ordinary skill in the art would modify Spinka and see the modification as beneficial in order to ensure safe travel of the ship.

Ans. 4–5 (emphases added); *see also* Non-Final Act. 6–7, 11–12 (mailed Feb. 23, 2017).

The Appellants argue that the Examiner’s rationale for combining the teachings of Spinka and Smith is based on impermissible hindsight. *See* Appeal Br. 22–23; Reply Br. 2–5. The Appellants point out that “Spinka is a reactive system that only seeks to control the positioning of the floats, not a system that is designed to adjust course.” Appeal Br. 19. The Appellants point out that “Smith expressly seeks to generate energy from waves, and would therefore seek out high wave energy. Particularly, Smith describes a regenerative surfing system and a ‘vertical sculling hydrofoil boat [which] utilizes the regenerative braking system and includes a vertical sculling drive system for both propulsion and regenerative braking.’” Appeal Br. 20 (citing Smith, Abstract). The Appellants add that Smith would teach a skilled artisan to “seek out areas of high wave energy rather than avoid them,” which “runs directly contrary to the motivation examiner cites to ‘ensure safe travel of a ship.’” *Id.* The Appellants’ argument is persuasive.

In this case, we fail to see, and the Examiner fails to explain persuasively, why one of ordinary skill in the art would apply Smith’s teachings, which concern regenerating surfing/braking to harvest energy, to predict and determine smooth and calm waters for the benefit of a reactive stability system for a vessel, as taught by Spinka.

Further, in the Appeal Brief the Appellants provide a Declaration of John D. Venables under 37 C.F.R. § 1.132 (“Decl. J. Venables”).³ Appeal Br. 38 (Evidence App.). This Declaration, which was provided during prosecution and presented as evidence in the Appeal Brief, “provides an explanation why one of skill would not seek to modify Spinka . . . to reach

³ The Declaration of John D. Venables was originally filed August 2, 2016, along with a Response to Office Action (“Response”).

the claims.” *Id.* at 30. The Appellants have pointed out repeatedly that the Examiner failed to consider the Declaration of John D. Venables. Response 10; Appeal Br. 18; Reply Br. 1. *See* Manual of Patent Examining Procedure (MPEP) § 2145 (9th ed., rev. 8, Jan. 2018) (“*In re Beattie*, 974 F.2d 1309, 1313 . . . (Fed. Cir. 1992) (Office personnel should consider declarations from those skilled in the art . . . opining that the art teaches away from the invention.)”). Upon review of the prosecution history, we fail to see any indication that the Examiner has considered the Declaration of John D. Venables as evidence. *See, e.g.*, Ans. 2–3.

Thus, we do not sustain the Examiner’s rejection of claims 1–5, 7, 8, 10, 12, 14–20, and 22–28 as unpatentable over Spinka and Smith. For similar reasons as discussed above we also do not sustain the rejections of: claim 11 under 35 U.S.C. § 103 as unpatentable over Spinka, Smith, and Oehlgrien; and claims 13 and 29 under 35 U.S.C. § 103 as unpatentable over Spinka, Smith, and Chun.

DECISION

We REVERSE the Examiner’s decision rejecting claims 1–5, 7, 8, 10–20, and 22–29.

REVERSED