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14/847,913	09/08/2015	Melissa Ann Seely	281976 (17851-1123)	6756
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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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*Ex parte* MELISSA ANN SEELY and  
WILLIAM FORRESTER SEELY <sup>1</sup>

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Appeal 2019-000697  
Application 14/847,913  
Technology Center 2400

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Before JAMES R. HUGHES, JOHN A. EVANS, and  
JOYCE CRAIG, *Administrative Patent Judges*.

EVANS, *Administrative Patent Judge*.

DECISION ON APPEAL  
STATEMENT OF THE CASE

*Jurisdiction.*

Claims 1, 4–11, and 14–20, are pending, stand rejected, are appealed (Appeal Br. 1), and are the subject of our decision under 35 U.S.C. § 134(a). We have jurisdiction over the pending claims under 35 U.S.C. § 6(b).

We REVERSE.

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<sup>1</sup> We use the word “Appellant” to refer to “Applicants” as defined in 37 C.F.R. § 1.42(a). The Appeal Brief identifies General Electric Company, as the real party in interest. Appeal Br. 1.

RELATED APPEALS AND TRIALS

Appellant declares there are no related appeals. Appeal Br. 1.

INVENTION

*Summary of the Invention.*

The invention is directed to an “imaging and analysis system for a component of a rotary machine.” Abstract.

*Claims.*

Claims 1 and 11 are independent.

Claim 1 is illustrative of the invention and is reproduced below with formatting added for clarity:

1. An imaging and analysis system for a component of a rotary machine, said system comprising:

an image capture device operable to capture image data from at least one selected type of electromagnetic radiation that is at least one of reflected from and transmitted through the component;

a mounting rig comprising a rotatable component mounting system and a datum coupled to said rotatable component mounting system, wherein the rotatable component mounting system is configured to rotate such that the component is successively presented in a plurality of preselected orientations relative to the image capture device, and the datum is correspondingly presented in each of a plurality of positions associated with the plurality of preselected orientations;

an image processor configured to generate processed data from the captured image data at each of the plurality of preselected orientations, said processed data based in part on a known size of the datum and a known one of the plurality of positions of the datum in each of the captured images; and

a control system configured to automatically identify a condition of the component by comparing the processed data to

stored reference data, wherein the reference data is stored in a format that enables direct comparison to the processed data.

REJECTIONS<sup>2</sup> AT ISSUE<sup>3</sup>

*References.*

<b>Name</b>	<b>Publication Number</b>	<b>Date</b>
Grote	US 2010/0141756 A1	June 10, 2010
Derrien	US 2011/0298901 A1	Dec. 8, 2011
Husmann	US 2013/0119256 A1	May 16, 2013
Pangrazio	US 2016/0061591 A1	Mar. 3, 2016, filed Aug. 28, 2015
Smith	US 2016/0309083 A1	Oct. 20, 2016, filed Apr. 17, 2015

*Rejections.*

1. Claims 1, 5, 6, 11, 15, and 16 stand rejected under 35 U.S.C. § 103 as being unpatentable over Pangrazio, Grote, and Smith. Final Act. 2–7.
2. Claims 4 and 14 stand rejected under 35 U.S.C. § 103 as being unpatentable over Pangrazio, Grote, Smith, and Derrien. Final Act. 7–8.

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<sup>2</sup> The Application is being examined under the first inventor to file provisions of the AIA. Final Act. 2.

<sup>3</sup> Throughout this Decision, we refer to the Appeal Brief (“Appeal Br.”) filed June 8, 2018, the Reply Brief (“Reply Br.”) filed November 2, 2018, the Final Office Action (“Final Act.”) mailed October 31, 2017, the Examiner’s Answer (“Ans.”) mailed September 6, 2018, and the Specification (“Spec.”) filed September 8, 2015.

3. Claims 7–10 and 17–20 stand rejected under 35 U.S.C. § 103 as being unpatentable over Pangrazio, Grote, Smith, and Husmann. Final Act. 8–11.

## ANALYSIS

### *Overview.*

We have reviewed Appellant’s arguments in the Briefs, the Examiner’s rejection, and the Examiner’s response to Appellant’s arguments. Appellant’s arguments have persuaded us of error in the Examiner’s rejection of Claims 1, 4–11, and 14–20 under 35 U.S.C. § 103.

### CLAIMS 1, 4–11, AND 14–20: OBVIOUSNESS OVER PANGRAZIO, GROTE, AND SMITH, AND VARIOUS SECONDARY REFERENCES.

Appellant argues all claims as a group in view of the limitations of Claim 1. *See* Appeal Br. 42. Therefore, we decide the appeal of the § 103 rejections on the basis of illustrative Claim 1 and refer to the rejected claims collectively herein as “the claims.” *See* 37 C.F.R. § 41.37(c)(1)(iv); *In re King*, 801 F.2d 1324, 1325 (Fed. Cir. 1986).

Appellant contends the combination of Pangrazio, Grote, and Smith fails to teach each element of the claims and for the additional reason that the Record fails to suggest a motivation to combine the references. Appeal Br. 5.

### *Rotating a rotatable component mounting system.*

Claim 1 recites, *inter alia*:

a mounting rig comprising a rotatable component mounting system and a datum coupled to said rotatable component mounting system, wherein the rotatable component mounting system is configured to rotate such that the component is

successively presented in a plurality of preselected orientations relative to the image capture device.

The Examiner finds Pangrazio teaches a mounting rig comprising a rotatable component mounting system. Final Act. 3 (citing Pangrazio, ¶ 6). The Examiner further finds Pangrazio teaches wherein the rotatable component mounting system is configured to rotate such that the component is successively presented in a plurality of preselected orientations relative to the image capture device. *Id.* (citing Pangrazio, ¶ 8—explaining Pangrazio teaches a mechanism that moves the load past the time-of-flight devices at a fixed velocity and a specific orientation with respect to the time-of-flight devices).

Appellant contends Pangrazio fails to teach the claimed “plurality of preselected locations.” Appeal Br. 6. Appellant argues rather, Pangrazio teaches a dimensioning apparatus, including a camera, which has been pre-calibrated using a calibration fiducial marker (found by the Examiner to teach the claimed “datum,” Final Act. 3) placed at a plurality of random orientations within the calibration apparatus. *Id.* Appellant explains that after the apparatus is calibrated, a load to be calibrated is driven into the apparatus from any random direction. The load has a mast fiducial (found by the Examiner to teach the claimed “component,” Final Act. 3), identical to the calibration fiducial which allows the camera to dimension the load by comparison against calibration photographs. *Id.* 6–7. Appellant argues

[b]ecause the alleged component of Pangrazio [mast fiducial] and the alleged datum [calibration fiducial] of Pangrazio are never in the view of the camera at the same time, it is indisputable that Pangrazio fails to describe the claim recitation “the component is successively presented in a plurality of preselected orientations relative to the image capture device, and the datum is correspondingly presented in each of a

plurality of positions associated with the plurality of preselected orientations.”

Appeal Br. 7 (emphasis omitted).

The Examiner finds Pangrazio discloses an embodiment wherein a load is moved past a time-of-flight device at a fixed velocity and which require “the loads to be in a specific orientation with respect to the time-of-flight device.” Ans. 14–15 (citing Pangrazio, ¶ 8).

Appellant makes two contentions with regard to this aspect of the Examiner’s Answer. First, Appellant contends the cited embodiment relates to the prior art and not to Pangrazio’s invention. Reply Br. 1 (citing Pangrazio, ¶ 8) (“[s]ome previous stationary dimensioning apparatus have employed time-of-flight devices”). Second, Appellant contends Pangrazio explicitly criticizes these prior art embodiments. *Id.* (citing Pangrazio, ¶ 8, emphasis omitted) (“Some previously known dimensioning apparatuses have additionally required the various loads to be in a specific orientation with respect to the time-of-flight devices. These requirements have limited the effectiveness and usefulness of such known types of fixed dimensioning apparatuses. Improvements thus would be desirable.”).

Appellant contends the Final Office Action and the Examiner’s Answer fail to cite any incentive to combine the separate prior art system of paragraph 8 “with the numerous other portions of Pangrazio’s own system that were cited to reject other recitations of Appellant’s claims, much less any incentive to combine the system of paragraph [0008] with the Grote and Smith references.” Reply Br. 2. Moreover, Appellant argues Pangrazio expressly criticizes prior art systems that require presentation in a fixed orientation. Therefore, because the claimed invention also requires the component to be in a specific orientation, Pangrazio would “deter any

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investigation into . . . a combination’ that results in Appellant’s claimed invention.” *Id.* 2–3 (quoting *DePuy Spine, Inc. v. Medtronic Sofamor Danek, Inc.*, 567 F.3d 1314, 1326 (Fed. Cir. 2009) (quoting *U. S. v. Adams*, 383 U.S. 39, 52 (1966))). Appellant argues “[s]uch a teaching away confirms the nonobviousness of Appellant’s claims. *Id.* (quoting *DePuy Spine*, at 1326).

As specifically disclosed by Pangrazio, any embodiment that would require “loads to be in a specific orientation with respect to the time-of-flight devices,” such as the claimed invention, would render Pangrazio unfit for its intended purpose. “Such a teaching away confirms the nonobviousness of Appellant’s claims. Reply Br. 2 (quoting *DePuy Spine*, at 1326). The concept of teaching away is based on the well-reasoned principle that when “prior art teaches away from combining certain known elements, discovery of a successful means of combining them is more likely to be nonobvious.” *KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 416 (2007).

Independent Claim 11 contains commensurate recitations. In view of the foregoing, we decline to sustain the rejection of Claims 1, 4–11, and 14–20.

CONCLUSION

<b>Claims Rejected</b>	<b>35 U.S.C. §</b>	<b>Reference(s)/Basis</b>	<b>Affirmed</b>	<b>Reversed</b>
1, 5, 6, 11, 15, 16	103	Pangrazio, Grote, Smith		1, 5, 6, 11, 15, 16
4, 14	103	Pangrazio, Grote, Smith, Derrien		4, 14
7-10, 17-20	103	Pangrazio, Grote, Smith, Husmann		7-10, 17-20
<b>Overall Outcome</b>				<b>1, 4-11, 14-20</b>

REVERSED