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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte MARCUS STEINBICHLER,
ROMAN BERGER, JORG COLLREP,
and RAINER HUBER

Appeal 2011-001488
Application 11/314,181
Technology Center 2600

Before MAHSHID D. SAADAT, DENISE M. POTHIER, and JEFFREY S. SMITH, *Administrative Patent Judges*.

SMITH, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

This is an appeal under 35 U.S.C. § 134(a) from the Examiner's final rejection of claims 1, 2, 4-12, 14-19, and 21-32, which are all the claims remaining in the application. We have jurisdiction under 35 U.S.C. § 6(b).

We affirm.

Representative Claim

Claim 1. A method of testing a component, wherein the component is tested using a test sensor whose position is sensed, wherein the position of the test sensor is sensed using a tracking system, wherein test results determined by the test sensor are associated with associated locations in the component to be tested, and wherein the test results associated with the locations in the component to be tested are spatially resolved test results including spatially resolved structural information of the component indicating at which points of the component an actual quality deviates from a desired quality.

Prior Art

Chen	US 5,920,383	July 6, 1999
Pryor	US 2002/0023478 A1	Feb. 28, 2002
Poropat	US 2002/0049530 A1	Apr. 25, 2002
Maidhof	US 2003/0112448 A1	June 19, 2003
Schroeder	US 2004/0234025 A1	Nov. 25, 2004

Examiner's Rejections

Claims 1, 2, 4, 5, 7-10, 18, 19, 21, 22, 24, 25, 31, and 32 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Pryor and Schroeder.

Claims 6, 11, and 23 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Pryor, Schroeder, and Poropat.

Claims 12, 26, and 27 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Pryor, Schroeder, and Chen.

Claims 14-16 and 28-30 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Pryor, Schroeder, and Maidhof.

Claim 17 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Pryor, Schroeder, Maidhof, and Chen.

ANALYSIS

Section 103 rejection of claims 1, 2, 4, 5, 7, 9, 10, 18, 19, 21, 22, 24, 25, 31, and 32

Appellants contend that Pryor has nothing to do with testing structural information of locations in a component. App. Br. 12-14. In particular, Appellants contend that Pryor measures external dimensions of an object, but does not teach test results determined by the test sensor are associated with locations in the component to be tested. Reply Br. 2-4.

Appellants' contention is based on the premise that measuring the locations of surfaces, edges, or holes of a component as taught by Pryor (*see* Ans. 4, citing ¶¶ 4 and 33; *see also* Fig. 4 and ¶¶ 48, 63) is somehow different from "test results determined by the test sensor are associated with associated locations in the component to be tested" as recited in claim 1. We are not persuaded that results concerning the surface, edge, or hole of the component of Pryor are not "associated with associated locations in the component" within the meaning of claim 1. We interpret the scope of "test results determined by the test sensor are associated with associated locations

in the component to be tested" as encompassing measuring the locations of surfaces, edges, or holes of a component as taught by Pryor.[1]

Further, the Examiner relies on Schroeder to teach "test results … associated with associated locations in the component." One cannot show non-obviousness by attacking references individually, where the rejections are based on combinations of references. *In re Merck & Co., Inc.*, 800 F.2d 1091, 1097 (Fed. Cir. 1986); *In re Keller*, 642 F.2d 413, 425 (CCPA 1981).

Appellants contend that combining the x-ray sensors of Schroeder with the photo-grammatic system of Pryor renders Pryor inoperable for its intended purpose because Pryor's sensor tracking methods do not work with Schroeder's CT scanner. App. Br. 15-18; Reply Br. 6-7. The test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference. The test is what the combined teachings of those references would have suggested to those of ordinary skill in the art. *Keller*, 642 F.2d at 425. The intended purpose of Pryor is determining the location of and calibrating a sensor during a test. *See* ¶¶ 2, 18, 19, 59, 63 and Fig. 4. Schroeder teaches an x-ray sensor that tests locations internal to a component. *See* Abstract. Testing internal locations of an object using the x-ray sensor of Schroeder while determining the location of the x-ray sensor using the photo-grammatic system of Pryor is the combination of familiar elements according to known methods that yields the predictable result of determining the locations of the x-ray sensor's test results.

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[1] In the event of further prosecution, the Examiner should consider whether Pryor alone describes each limitation of claim 1 (*see*, for example, Fig. 4 and ¶ 63).

In addition, we find that Schroeder teaches a coordinate measuring instrument that measures the coordinates of an object using two cameras (*see* ¶¶ 27, 120, 122, 127). The x-ray sensor and the coordinate measuring instrument are integrated into a single device as shown in Figure 1. We find that using the two cameras in the coordinate measuring instrument of Schroeder to determine the location of Schroeder's sensor as taught by Pryor is the combination of familiar elements according to known methods that does no more than yield the predictable result of spatially resolving test results of the x-ray sensor.

Appellants contend that Schroeder does not teach a spatially resolved link between the sensed positions of the test sensor and the sensor readings because the test sensor of Schroeder does not move. Reply Br. 4-5. However, Figure 1 of Schroeder shows that the component moves relative to the test sensor. Appellants have not provided persuasive evidence or argument to distinguish moving the component relative to the test sensor from moving the test sensor relative to the component. Appellants' contention is also inconsistent with paragraph 3 of Schroeder, which suggests moving the sensor relative to the component, or vice versa, for testing internal locations of an object.

Further, claim 1 does not require the test sensor to move; claim 1 only requires "the position of the test sensor is sensed using a tracking system." Because Figure 1 and paragraph 67 of Schroeder show the position of the component is sensed relative to the position of the sensor using a tracking system, Schroeder teaches "the position of the test sensor" relative to the component "is sensed using a tracking system" within the meaning of claim 1. We find that Appellants' contention that Schroeder does not teach a

spatially resolved link between the sensed position of the test sensor and the sensor readings is inconsistent with Schroeder's Figure 1 and corresponding written description in paragraphs 67 and 114-128.[2]

Moreover, Pryor teaches tracking the position of the test sensor to account for position changes of the sensor due to temperature fluctuations. Abstract. Using the cameras in the coordinate measuring instrument of Schroeder to determine the location of Schroeder's sensor as taught by Pryor is the combination of familiar elements according to known methods that does no more than yield the predictable result of spatially resolving test results.

We sustain the rejection of claim 1 under 35 U.S.C. § 103. Appellants have not presented arguments for separate patentability of claims 2, 4, 5, 7, 9, 10, 18, 19, 21, 22, 24, 25, 31, and 32 which fall with claim 1.

Section 103 rejection of claim 8

Appellants contend that a system utilizing both a photo-grammatic system and a CT scanner would not be obvious. App. Br. 18. We disagree for the reasons given by the Examiner in the Final Rejection and Examiner's Answer. Further, Appellants' argument is inconsistent with Figure 1 and paragraphs 27 and 120 of Schroeder, which suggest both cameras and a CT scanner integrated into one single device. Pryor suggests that the cameras of Schroeder can be photo-grammatic cameras.

We sustain the rejection of claim 8 under 35 U.S.C. § 103.

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[2] In the event of further prosecution the Examiner should determine whether Schroeder alone describes each limitation of claim 1 (*see*, for example, Fig. 1 and ¶¶ 114-128).

Section 103 rejection of claims 6, 11, and 23

Appellants rely on the arguments presented for claim 1, which we find unpersuasive, to support patentability of claims 6, 11, and 23. We sustain the rejection of claims 6, 11, and 23 under 35 U.S.C. § 103.

Section 103 rejection of claims 12, 26, and 27

Appellants rely on the arguments presented for claim 1, which we find unpersuasive, to support patentability of claims 12, 26, and 27. We sustain the rejection of claims 12, 26, and 27 under 35 U.S.C. § 103.

Section 103 rejection of claims 14-16 and 28-30

Appellants rely on the arguments presented for claim 1, which we find unpersuasive, to support patentability of claims 14-16 and 28-30. We sustain the rejection of claims 14-16 and 28-30 under 35 U.S.C. § 103.

Section 103 rejection of claim 17

Appellants rely on the arguments presented for claim 1, which we find unpersuasive, to support patentability of claim 17. We sustain the rejection of claim 17 under 35 U.S.C. § 103.

DECISION

The rejection of claims 1, 2, 4, 5, 7-10, 18, 19, 21, 22, 24, 25, 31, and 32 under 35 U.S.C. § 103(a) as being unpatentable over Pryor and Schroeder is affirmed.

The rejection of claims 6, 11, and 23 under 35 U.S.C. § 103(a) as being unpatentable over Pryor, Schroeder, and Poropat is affirmed.

The rejection of claims 12, 26, and 27 under 35 U.S.C. § 103(a) as being unpatentable over Pryor, Schroeder, and Chen is affirmed.

The rejection of claims 14-16 and 28-30 under 35 U.S.C. § 103(a) as being unpatentable over Pryor, Schroeder, and Maidhof is affirmed.

The rejection of claim 17 under 35 U.S.C. § 103(a) as being unpatentable over Pryor, Schroeder, Maidhof, and Chen 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). *See* 37 C.F.R. § 41.50(f).

AFFIRMED

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