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Stanley Black & Decker, Inc. 6201 Greenleigh Avenue, MR045 Middle River, MD 21220			SMALL, NAOMI J	
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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte KEVIN WENGER, OLEKSIY P. SERGYEYENKO, STEVEN J. PHILLIPS, DAVID C. CAMPBELL, RENEE PIE, LEISA GLISPY, JENNIFER BLOOMER, and RENEE FOLGER

Appeal 2019-001096
Application 15/008,550
Technology Center 2600

Before BRADLEY W. BAUMEISTER, JEREMY J. CURCURI, and ADAM J. PYONIN, *Administrative Patent Judges*.

CURCURI, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

Pursuant to 35 U.S.C. § 134(a), Appellant¹ appeals from the Examiner's decision to reject claims 29–31 and 33–42. We have jurisdiction under 35 U.S.C. § 6(b).

We AFFIRM.

¹ We use the word Appellant to refer to “applicant” as defined in 37 C.F.R. § 1.42(a). Appellant identifies the real party in interest as Black & Decker Inc. Appeal Br. 3.

CLAIMED SUBJECT MATTER

The claims are directed to “a system and method for identifying a power tool.” Spec. ¶ 2. Claims 29 and 39, reproduced below, are illustrative of the claimed subject matter:

29. A power tool, comprising:

a housing;

a motor disposed in the housing, the motor being operable by a user of the power tool and operation of the motor causing the power tool to vibrate;

a vibration sensor which detects vibration of the power tool;

a transmitter which transmits information from the vibration sensor to an external computing device; and

a controller in data communication with the vibration sensor and the transmitter;

wherein the vibration sensor detects at least one of a magnitude of vibration and a frequency of vibration; and

wherein the vibration sensor measures vibration in more than one axis.

39. A power tool system, comprising:

a power tool, the power tool including:

a housing;

a motor disposed in the housing, the motor being operable by a user of the power tool and operation of the motor causing the power tool to vibrate;

a vibration sensor which detects vibration of the power tool;

a transmitter which transmits vibration data received from the vibration sensor;

a memory, wherein the vibration data from the vibration sensor is stored in the memory; and

a controller in data communication with the vibration sensor and the transmitter; and

the power tool system further comprising an external computing device remote from the power tool, the external computing device receiving vibration data from the transmitter;

wherein the vibration data includes information of a dominant resonant frequency of the power tool.

REFERENCES

The prior art relied upon by the Examiner is:

Name	Reference	Date
Kemmler	US 2006/0005358 A1	Jan. 12, 2006
Golunski	US 2009/0040061 A1	Feb. 12, 2009
Roth	US 2009/0140154 A1	June 04, 2009

REJECTIONS

Claims 29–31, 33–38, and 42 are rejected under pre-AIA 35 U.S.C. § 103(a) as obvious over Roth and Golunski. Final Act. 6–9.

Claims 39 and 40 are rejected under pre-AIA 35 U.S.C. § 103(a) as obvious over Roth, Golunski, and Kemmler. Final Act. 10–11.

Claim 41 is rejected under pre-AIA 35 U.S.C. § 103(a) as obvious over Roth, Golunski, and Kemmler. Final Act. 11–12.

OPINION

The Obviousness Rejection of Claims 29–31, 33–38, and 42 over Roth and Golunski

The Examiner finds Roth and Golunski teach all limitations of claim 29. Final Act. 6–7. In particular, the Examiner finds Golunski teaches “a transmitter which transmits information from the vibration sensor”; “wherein the vibration sensor detects at least one of a magnitude of vibration and a frequency of vibration”; and “wherein the vibration sensor measures vibration in more than one axis,” as recited in claim 29. *See* Final Act. 6 (citing Golunski ¶¶ 71, 114, 128).

The Examiner reasons, as follows:

It would have been obvious to one having ordinary skill in the art at the time the invention was made to implement the transmission of data from the tool monitoring apparatus as taught by Golunski, since Golunski states in paragraph [0129] that such a modification would allow for remotely collecting an employee’s cumulative vibration exposure with respect to the use of multiple tools.

Final Act. 7 (citing Golunski ¶ 129).

Appellant presents the following principal argument: “Given that Roth expressly teaches against using a multidimensional acceleration sensor, it would not have been obvious to modify Roth to include just such a sensor.” Appeal Br. 12 (citing Roth ¶¶ 5–6); *see also* Appeal Br. 13 (“[T]he Office Action relies on an improperly high bar for teaching away. In order to teach away, it is not necessary that the combination render the device inoperable. Teaching away only requires criticizing or discouraging a combination.”), Reply Br. 6–7 (citing Roth ¶¶ 2, 5).

In response, the Examiner explains

Roth's comment on not using the multidimensionally functioning acceleration sensor is based on cost and does not restrict or teach away or discourage the use of all multidimensional acceleration sensors. Therefore, Golunski's tri-axial accelerometer is not described as being expensive and would be a simple substitution for the simple acceleration sensor in Roth. The substitution of one known element (simple acceleration sensor as taught by Roth) for another (tri-axial accelerometer as taught by Golunski) would have been obvious to one of ordinary skill in the art at the time of the invention since the substitution of the simple acceleration sensor as taught by Roth would have yielded predictable results, namely, determining the vibrational exposure to a user through the use of data obtained from three principal axes as taught by Golunski.

Ans. 4.

Appellant's arguments do not persuade us of any error in the Examiner's findings. We concur with the Examiner's conclusion of obviousness.

Roth discloses the following:

The vibration dosimeter according to the invention and the method according to the invention give workers a simple and reasonably priced *option*, without the use of expensive multidimensionally functioning acceleration sensors, for determining the daily vibration exposure from a tool used in the workplace and for determining whether the action value and exposure limit value set forth in EU Directive 2002/44 have been exceeded due to the use of the tool.

Roth ¶ 5 (emphasis added); *see also* Roth ¶ 15 ("simple acceleration sensor"). Thus, Roth discloses that it is an *option* to use a simple acceleration sensor instead of a multidimensionally functioning acceleration sensor.

Although an alternative may be inferior to or less desirable than another, that alone is insufficient to teach away from the inferior alternative unless the disclosure criticizes, discredits, or otherwise discourages that alternative. *In re Fulton*, 391 F.3d 1195, 1200–01 (Fed. Cir. 2004). Here, Roth’s disclosure of a simple acceleration sensor as a simpler and lower-cost *option* over a multidimensionally functioning acceleration sensor does not criticize, discredit, or otherwise discourage the use of a multidimensionally functioning acceleration sensor in the Examiner’s combination. *See* Roth ¶ 5.

The Examiner has articulated a reason to combine the references that is rational on its face and supported by evidence drawn from the record. *See* Final Act. 7 (“remotely collecting an employee’s cumulative vibration exposure with respect to the use of multiple tools”); Ans. 4 (“substitution of the simple acceleration sensor as taught by Roth would have yielded predictable results, namely, determining the vibrational exposure to a user through the use of data obtained from three principal axes as taught by Golunski”); *see also* Golunski ¶ 129 (“Thus when an employee’s allocated units have elapsed, employee will not be able to activate any tools within the workplace.”). Appellant has not presented any particularized arguments, other than the teaching away argument, which we address above, as to why the Examiner’s reasoning is incorrect.

We, therefore, sustain the Examiner’s rejection of claim 29. We also sustain the Examiner’s rejection of claims 30, 31, 33–38, and 42, which are not separately argued with particularity.

The Obviousness Rejection of Claims 39 and 40 over Roth, Golunski, and Kemmler

The Examiner finds Roth, Golunski, and Kemmler teach all limitations of claim 39. Final Act. 10–11. In particular, the Examiner finds Kemmler teaches “wherein the vibration data includes information of a dominant resonant frequency of the power tool,” as recited in claim 39. See Final Act. 11 (citing Kemmler ¶ 7).

The Examiner reasons as follows:

It would have been obvious to one having ordinary skill in the art at the time the invention was made to implement the data including a dominant resonant frequency of the power tool as taught by Kemmler, since Kemmler states in paragraph [0007], lines 18–24 that such a modification would allow for adjusting a resonant frequency in order to avoid the dominant resonant frequency of the power tool.

Final Act. 11.

Appellant presents the following principal argument:

Kemmler discloses a handle. There is nothing in Kemmler that would suggest modifying the vibration monitors of Roth and Golunski to include any particular type of data, including data related to a dominant resonant frequency of a power tool. If Kemmler would teach anything, it would teach including a particular type of handle on a power tool. If Kemmler were combined with Roth it would result in a power tool with the Kemmler handle. There is nothing to suggest that it would result in the claimed invention.

Appeal Br. 14; *see also* Reply Br. 7–9.

In response, the Examiner explains “the handle of Kemmler is not being combined with the prior art of Roth and Golunski, but rather the idea of avoiding a dominant resonant frequency.” Ans. 5.

Appellant's arguments do not persuade us of any reversible error in the Examiner's findings or conclusions. We concur with the Examiner's conclusion of obviousness.

Kemmler teaches that those vibrations of a power hand tool that can cause the tool operator to experience untimely fatigue specifically include vibrations that have a dominant resonant frequency. Kemmler ¶¶ 2, 7. Given that the combination of Roth and Golunski teach the obviousness of employing vibration sensors for measuring vibrations in power tools, as explained above in relation to claim 29, it would have been obvious to produce vibration data specifically relating to the dominant resonant frequency because this would be the most relevant information. *See* Kemmler ¶¶ 2, 7.

We, therefore, sustain the Examiner's rejection of claim 39. We also sustain the Examiner's rejection of claim 40, which is not separately argued with particularity.

The Obviousness Rejection of Claim 41 over Roth, Golunski, and Kemmler

Appellant argues "Kemmler does not correct the above-noted deficiencies of the rejection of claim 29." Appeal Br. 14–15; *see also* Reply Br. 10.

We do not see any deficiencies in the rejection of claim 29 for the reasons explained above when addressing claim 29.

We, therefore, sustain the Examiner's rejection of claim 41.

CONCLUSION

The Examiner's rejections are affirmed.

DECISION SUMMARY

In summary:

Claims Rejected	35 U.S.C. §	Reference(s)/Basis	Affirmed	Reversed
29–31, 33–38, and 42	103(a)	Roth and Golunski	29–31, 33–38, and 42	
39 and 40	103(a)	Roth, Golunski, and Kemmler	39 and 40	
41	103(a)	Roth, Golunski, and Kemmler	41	
Overall Outcome			29–31 and 33–42	

TIME PERIOD FOR RESPONSE

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. § 1.136(a)(1)(iv).

AFFIRMED