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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
14/342,458	03/25/2014	Samuel Moser	160592	3799
92793	7590	09/13/2019	EXAMINER	
OLIFF PLC (with Nony) P.O. Box 320850 Alexandria, VA 22320-4850			GONZALEZ, JULIO CESAR	
			ART UNIT	PAPER NUMBER
			2831	
			NOTIFICATION DATE	DELIVERY MODE
			09/13/2019	ELECTRONIC

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UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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*Ex parte* SAMUEL MOSER, JEAN-MARIE ANDREJAK,  
and PATRICE BETGE<sup>1</sup>

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Appeal 2018-002320  
Application 14/342,458  
Technology Center 2800

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Before JENNIFER S. BISK, JOYCE CRAIG, and  
STEVEN M. AMUNDSON, *Administrative Patent Judges*.

CRAIG, *Administrative Patent Judge*.

DECISION ON APPEAL

This is a decision on appeal under 35 U.S.C. § 134(a) from the final rejection of claims 1–7, which are all claims pending in the application. We have jurisdiction under 35 U.S.C. § 6(b). An oral hearing was held on August 13, 2019.

We affirm.

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<sup>1</sup> According to Appellants, the real party in interest is Moteurs Leroy-Somer. App. Br. 1.

## STATEMENT OF THE CASE

### *The Invention*

Appellants' disclosed embodiments and claimed invention relate to regulating the operation of a generator set. Spec. 1.

### *Exemplary Claim*

Claim 1, reproduced below, is representative of the subject matter on appeal (*emphasis* added to contested prior-art limitations):

1. A method for regulating the injection of fuel into a fuel engine of a generator set comprising an alternator driven by the fuel engine, the generator set having at least one speed sensor for sensing the speed of the fuel engine and a speed regulator, the speed regulator receiving as input at least a signal originating from the at least one speed sensor, the method comprising:

detecting an increase in the load at the output of the alternator based on at least one electrical quantity at the output of the alternator, and

when an increase in the load is detected, *replacing at least one value delivered by the at least one speed sensor with at least one predefined value as input for the speed regulator of the engine, so as to simulate a slowing down of the engine, and thus cause the engine to accelerate as soon as the increase of the load is detected and before the engine has dropped in speed.*

### *Rejections on Appeal*

Claims 1–7 stand rejected under 35 U.S.C. § 112 (pre-AIA), first paragraph, as failing to comply with the written-description requirement. Final Act. 4–7.

Claims 1, 2, and 4 stand rejected under 35 U.S.C. § 102(b) as anticipated by Desai et al. (US 2010/0241283 A1; published Sept. 23, 2010) (“Desai”).

Claims 1, 2, and 4 stand rejected under 35 U.S.C. § 103(a) as obvious over Desai.

Claims 1–4 stand rejected under 35 U.S.C. § 103(a) as unpatentable over the combination of Desai and Eaton et al. (US 2011/0175372 A1; published July 21, 2011) (“Eaton ’372”).

Claims 1–4 stand rejected under 35 U.S.C. § 103(a) as unpatentable over the combination of Eaton ’372 and Eaton et al. (US 6,555,929 B1; issued Apr. 29, 2003) (“Eaton ’929”).

Claims 1–7 stand rejected under 35 U.S.C. § 103(a) as unpatentable over the combination of Desai, Eaton ’372, Eaton ’929, and Zagranski et al. (US 2004/0093151 A1; published May 13, 2004).

#### ANALYSIS

In reaching this decision, we consider all evidence presented and all arguments actually made by Appellants. To the extent Appellants have not advanced separate, substantive arguments for particular claims, or other issues, such arguments are waived. 37 C.F.R. § 41.37(c)(1)(iv). Based on Appellants’ arguments (App. Br. 5–13; Reply Br. 2–5) and our discretion under 37 C.F.R. § 41.37(c)(1)(iv), we decide the appeal of the obviousness rejection of claims 1–7 on the basis of representative claim 1.

##### *Rejection of Claims 1–7 Under 35 U.S.C. § 112, First Paragraph*

The Examiner rejected claims 1–7 for lack of written description because “[t]he claims disclose the implementation of a regulator, which is able to detect an increase in the load and replace a value with a predefined value,” but “the present disclosure does not provide an adequate explanation of how such value replacement is done.” Final Act. 4. The Examiner also

found that “the [S]pecification is vague with respect to the simulation process and how it is done and applied to the present invention.” *Id.* at 5 (emphasis omitted).

Appellants contend that the Examiner erred because “[t]he present invention discloses a regulation method and not a simulation process.” App. Br. 5. Appellants argue that the process for the replacement of the value is shown in Figures 4A and 4C and described on page 5, line 19, to page 6, line 14, of the Specification. *Id.*

Compliance with the written-description requirement set forth in the first paragraph of 35 U.S.C. § 112 does not require that the claimed subject matter be described identically in the Specification, but the disclosure as originally filed must convey to those skilled in the art that applicant had invented the subject matter later claimed. *In re Kaslow*, 707 F.2d 1366, 1375 (Fed. Cir. 1983). The drawings in an application can be relied upon to show that an inventor was in possession of the claimed invention as of the filing date. *See Vas-Cath Inc. v. Mahurkar*, 935 F.2d 1555, 1564 (Fed. Cir. 1991) (“[D]rawings alone *may* be sufficient to provide the ‘written description of the invention’ required by § 112, first paragraph.”).

The Specification describes regulation system 9, which is arranged to detect a load variation based on the voltage at the output of the alternator. Spec. 5. In nominal operation, regulation system 9 retransmits a signal from sensor 5 to speed regulator 4. *Id.*; Fig. 4B. When a load impact occurs, however, regulation system 9 sends a replacement signal 102 to speed regulator 4 before sensor 5 has detected a speed variation. Spec. 6; Fig. 4B. The replacement signal 102 simulates a slowing down of engine 2, which

causes speed regulator 4 to increase the power of the engine to accelerate and counter this slowing down. *Id.*

In the Answer, the Examiner did not adequately explain why the disclosure on page 5, line 19, to page 6, line 14, of the Specification is insufficient to satisfy the written-description requirement. *See* Ans. 7. Thus, the original Specification and its attendant drawings (Figs. 3, 4A–4C) adequately describe the disputed limitation

replacing at least one value delivered by the at least one speed sensor with at least one predefined value as input for the speed regulator of the engine, so as to simulate a slowing down of the engine, and thus cause the engine to accelerate as soon as the increase of the load is detected and before the engine has dropped in speed.

We are of the opinion that the originally filed Specification and drawings demonstrate that Appellants had possession of the claimed subject matter at the time the application was filed. We, therefore, determine that the original disclosure satisfies the written-description requirement of 35 U.S.C. § 112, first paragraph, and we reverse the Examiner’s rejection of claims 1–7.

#### *Objection to Drawings*

The Examiner objected to the drawings because an “algorithm with respect to the controlling aspect of the present invention and structure related to the controller are not illustrated.” Final Act. 3.

Ordinarily, an objection is reviewable by petition under 37 C.F.R. § 1.181, and a rejection is appealable to the Patent Trial and Appeal Board. When the issue of new matter presented is the subject of both an objection and a rejection, the issue is appealable. *See* Manual of Patent Examining Procedure § 608.04(c) (9th ed., Rev. 07.2015, Nov. 2015) (providing that

“where the alleged new matter is introduced into or affects the claims, thus necessitating their rejection on this ground, the question becomes an appealable one, and should not be considered on petition even though that new matter has been introduced into the specification also”).

In this case, as discussed above, Figures 3 and 4A–4C of the subject application illustrate

replacing at least one value delivered by the at least one speed sensor with at least one predefined value as input for the speed regulator of the engine, so as to simulate a slowing down of the engine, and thus cause the engine to accelerate as soon as the increase of the load is detected and before the engine has dropped in speed.

*See* Spec. 5–6. As also discussed above, the claimed subject matter need not be described identically in the Specification. *See Kaslow*, 707 F.2d at 1375. To the extent that the objections to the drawings and Specification in the Final Office Action turn on the same issue(s) as the rejection under 35 U.S.C. § 112, first paragraph, our decision with respect to the § 112 rejection is dispositive as to the corresponding objection(s).

*Rejection of Claims 1–7 Under 35 U.S.C. § 103(a)*

Appellants argue all of the § 103(a) rejections together. App. Br. 7. Appellants argue independent claims 1 and 5, and dependent claims 2–4, 6, and 7, as a group. *Id.* at 7–12. Based on Appellants’ arguments (*id.*) and our discretion under 37 C.F.R. § 41.37(c)(1)(iv), we decide the appeal of the obviousness rejections of claims 1–7 on the basis of representative claim 1.

Rejection of Claims 1–7 over Desai, Eaton '372, Eaton '929, and Zagranski

We are not persuaded by Appellants' arguments with respect to the obviousness rejections of claims 1–7 and, unless otherwise noted, we incorporate by reference herein and adopt as our own: (1) the findings and reasons set forth by the Examiner in the action from which this Appeal is taken (Final Act. 2–17), and (2) the reasons and rebuttals set forth in the Examiner's Answer in response to Appellants' arguments (Ans. 2–11). We highlight and address specific findings and arguments regarding claim 1 for emphasis as follows.

Appellants address each of the prior-art references individually in the Appeal Brief. App. Br. 7–12. Nonobviousness, however, cannot be established by attacking the references individually when, as here, the rejection is based upon a combination of prior-art disclosures. *See In re Merck & Co.*, 800 F.2d 1091, 1097 (Fed. Cir. 1986). The test for obviousness is not whether the claimed invention is expressly suggested in any one or all of the references, but whether the claimed subject matter would have been obvious to those of ordinary skill in the art in light of the combined teachings of those references. *See In re Keller*, 642 F.2d 413, 425 (CCPA 1981).

The Examiner found that the combination of Desai, Eaton '372, Eaton '929, and Zagranski teaches the limitation

replacing at least one value delivered by the at least one speed sensor with at least one predefined value as input for the speed regulator of the engine, so as to simulate a slowing down of the engine, and thus cause the engine to accelerate as soon as the increase of the load is detected and before the engine has dropped in speed,

as recited in claim 1. *See* Final Act. 8–11; Ans. 8–11. Because Appellants argue the references individually and do not address the Examiner's combination of the teachings, we are not persuaded by Appellants' argument that the Examiner erred in rejecting claims 1–7 over the combination of Desai, Eaton '372, Eaton '929, and Zagranski. *See Merck*, 800 F.2d at 1097; *Keller*, 642 F.2d at 425.

Accordingly, we sustain the Examiner's § 103(a) rejection of claims 1–7 over the combination of Desai, Eaton '372, Eaton '929, and Zagranski.

Rejection of Claims 1–4 over Eaton '372 and Eaton '929

As discussed above with regard to claims 1–7, because Appellants argue the references individually and do not address the Examiner's combination of the teachings (*see* Final Act. 10–11), we are not persuaded by Appellants' argument that the Examiner erred in rejecting claims 1–4 over the combination of Eaton '372 and Eaton '929. *See Merck*, 800 F.2d at 1097; *Keller*, 642 F.2d at 425.

Accordingly, we sustain the Examiner's § 103(a) rejection of claims 1–4 over the combination of Eaton '372 and Eaton '929.

Rejection of Claims 1–4 over Desai and Eaton '372

As discussed above, because Appellants argue the references individually and do not address the Examiner's combination of the teachings (*see* Final Act. 9–10), we are not persuaded by Appellants' argument that the Examiner erred in rejecting claims 1–4 over the combination of Desai and Eaton '372. *See Merck*, 800 F.2d at 1097; *Keller*, 642 F.2d at 425.

Accordingly, we sustain the Examiner's § 103(a) rejection of claims 1–4 over the combination of Desai and Eaton '372.

Rejection of Claims 1, 2, and 4 over Desai

Appellants argue that the Examiner erred because Desai does not teach that a value delivered by the speed sensor is replaced with at least one predefined value as input for the speed regulator of the engine in case of a load increase, as claim 1 requires. App. Br. 7.

We are not persuaded by Appellants' argument. The Examiner found that Desai teaches replacing a value by values stored in computer memories. Ans. 9 (citing Desai ¶¶ 17–19, 24, 26, 27, 34, 35, 41); Final Act. 8–9 (citing Desai ¶¶ 8, 17–19, 21, 24–28). The Examiner also found that Desai teaches replacing value(s) by using feedback control in order to control/change/replace the engine speeds and/or timing and use a “desired operating parameter value.” Ans. 9 (citing Desai ¶¶ 24, 39). The Examiner found that engine 12 in Desai sends feedback signals, such as engine speed, to engine control module 30. Final Act. 8 (citing Desai ¶¶ 18, 24, Figs. 2, 3). The Examiner found Desai further teaches that Desai's engine control module 30 controls operation of engine 12 by generating fueling commands and/or air intake commands, which control the speed of engine 12. *See* Ans. 9 (citing Desai ¶ 24). Appellants acknowledge that in Desai, when a change in the load is detected, operating parameter values are sent to fuel injectors to change their working operation so as to reduce or avoid the deviation of the engine caused by the change in load. App. Br. 8. Desai further teaches that engine control module 30 may store in memory thresholds and/or ranges of acceptable values for the operational parameters of engine 12. *See* Ans. 9 (citing Desai ¶¶ 18, 19, 24, 26).

Appellants have not persuasively rebutted the Examiner's findings. Instead, Appellants further argue that Desai does not teach that a “speed

value” is replaced. App. Br. 8. Claim 1, however, does not recite a “speed value.” Nor have Appellants persuaded us that claim 1 somehow requires a “speed value.” Rather, the plain language of claim 1 states

replacing *at least one value* delivered by the at least one speed sensor *with at least one predefined value* as input for the speed regulator of the engine, so as to simulate a slowing down of the engine, and thus cause the engine to accelerate as soon as the increase of the load is detected and before the engine has dropped in speed

(emphasis added). According to Appellants’ Specification, a speed regulator receives a signal from a sensor and computes the appropriate fuel injection level. Once a load variation is detected, a regulation system sends the speed regulator a replacement signal, which causes the speed regulator to increase the power of the engine by modifying the flow rate of fuel injected into engine 2. Spec. 6.

Similarly, in Desai, “[i]t is contemplated that some or all operating parameters of fuel injectors 24 may be electronically controlled.” Desai

¶ 18. Specifically, Desai teaches that

[e]ngine control module 30 may receive feedback signals from engine 12 such as, for example, engine temperature, *engine speed*, fuel injection timing, fuel injection quantity, fuel pressure, air temperature, air pressure, and/or air-fuel ratio. Engine control module 30 may be operable to use these feedback signals to monitor operation of engine 12. Engine control module 30 may also be configured to control operation of engine 12 by generating control commands such as, for example, fueling commands and/or air intake commands.

*Id.* ¶ 24 (emphasis added). In addition, Desai teaches that the control commands may be predefined values. Ans. 9 (citing Desai ¶ 27).

Appellants argue that the operating parameter values of Desai are not “equivalent to” the predefined value of claim 1, “as they are not input from

the engine control module 30 and do not replace the feedback signals.” App. Br. 8.

Appellants’ argument is not persuasive. The test for obviousness is not whether the prior-art element is “equivalent to” a recited claim element, but rather whether the claimed subject matter would have been obvious to those of ordinary skill in the art. *See Keller*, 642 F.2d at 425. Moreover, the Examiner relied on paragraphs 17, 27, and 28 of Desai as teaching “replacing at least one value delivered by the speed sensor with at least one predefined value.” Final Act. 8–9. Paragraph 27 of Desai teaches, for example, that an automatic voltage regulator may process input signals received from engine control module 30, generate output signals based on the input signals, and deliver the output signals to engine control module 30, as appropriate. Desai ¶ 27. Appellants have not persuaded us that this disclosure in Desai does not at least suggest “replacing at least one value delivered by the speed sensor with at least one predefined value,” in light of the other cited teachings of Desai. In other words, Appellants have not persuasively rebutted the Examiner’s findings with regard to the disputed limitation.<sup>2</sup>

For these reasons, we sustain the Examiner’s § 103(a) rejection of claims 1, 2, and 4 over Desai.

*Rejection of Claims 1, 2, and 4 Under 35 U.S.C. § 102(b)*

Because the Examiner made the § 102 and § 103 rejections of claims 1, 2, and 4 over Desai “in the alternative” (Final Act. 8), and because we

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<sup>2</sup> Appellants were given the opportunity to address paragraphs 27 and 28 of Desai during the oral hearing held on August 13, 2019, but Appellants did not persuasively or specifically address those paragraphs. *See Hr’g Tr.* 7:1–17.

Appeal 2018-002320  
Application 14/342,458

have affirmed the § 103(a) rejection of claims 1, 2, and 4 over Desai, we *pro forma* reverse the Examiner's § 102(b) rejection of claims 1, 2, and 4 over Desai.

#### DECISION

We affirm the Examiner's decision rejecting claims 1–7 under 35 U.S.C. § 103(a).

We reverse the Examiner's decision rejecting claims 1–7 under 35 U.S.C. § 112, first paragraph.

We reverse the Examiner's decision rejecting claims 1, 2, and 4 under 35 U.S.C. § 102(b).

Because we affirm at least one ground of rejection with respect to each claim on appeal, the Examiner's decision rejecting claims 1–7 is affirmed. *See* 37 C.F.R. § 41.50(a)(1).

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). *See* 37 C.F.R. § 41.50(f).

AFFIRMED