

The opinion in support of the decision being entered today was not written for publication and is not binding precedent of the Board.

Paper No. 30

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte ARNE SOLAND

Appeal No. 2003-0217
Application No. 09/284,076

ON BRIEF

Before WALTZ, KRATZ, and DELMENDO, Administrative Patent Judges.
DELMENDO, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on an appeal under 35 U.S.C. § 134 (2003) from the examiner's final rejection of claims 10 through 15 (final Office action mailed Oct. 17, 2001, paper 22), which are all of the claims pending in the above-identified application.

The subject matter on appeal relates to a method for operating a process plant including a refining unit having at least one reformer (claims 10-14) and to an apparatus for a

process plant having a refining unit with at least one reformer.

Further details of this appealed subject matter are recited in representative claims 10, 11, and 15 reproduced below:

10. A method for operating a process plant including a refining unit having at least one reformer, for a heat treatment of gas, and a power generator comprising:

generating power with a gas turbine;

supplying oxygen-containing exhaust gas from the gas turbine to a combustion chamber of the reformer through a channel, the channel consisting essentially of a conduit without a heater or a fan; and

controlling operation of the gas turbine in order to supply exhaust gas to the reformer combustion chamber at an overpressure of approximately 0.5 bar and at a temperature of approximately 350 to 450 degrees C.

11. A method for operating a process plant including a refining unit having at least one reformer, for a heat treatment of gas, and a power generator comprising:

generating power with a gas turbine;

supplying exhaust gas from the gas turbine to a combustion chamber of the reformer to serve as combustion gas, the combustion gas consisting essentially of the turbine exhaust gas; and

controlling operation of the gas turbine in order to cause exhaust gas to advance from the gas turbine to the combustion chamber at an exhaust gas overpressure of approximately 0.5 bar and at an exhaust gas temperature of approximately 350 to 450 degrees C, which exhaust gas overpressure corresponds to the overpressure requirement of the combustion chamber.

15. Apparatus for a process plant having a refining unit with at least one reformer, for a heat treatment of gas, and a power generator comprising:

a gas turbine connected to a power generator;

a combustion chamber of at least one reformer;

and

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a channel, consisting essentially of a conduit without a heater or a fan, connecting the combustion chamber to an exhaust gas outlet of the gas turbine.

The examiner relies on the following prior art references as evidence of unpatentability:

Muenger et al. (Muenger)	4,193,259	Mar. 18, 1980
Javeri (published GB application)	2,146,632	Apr. 24, 1985

Claim 15 on appeal stands rejected under 35 U.S.C. § 102(b) as anticipated by Javeri. (Examiner's answer mailed Jul. 23, 2002, paper 26, page 3; final Office action, page 2.) In addition, claims 10 through 14 on appeal stand rejected under 35 U.S.C. § 103 as unpatentable over Javeri in view of Muenger. (Answer, page 3; final Office action, pages 2-3.)

We affirm the rejection under 35 U.S.C. § 102(b) but not the rejection under 35 U.S.C. § 103.

35 U.S.C. § 102(b): Claim 15

"Anticipation requires that every limitation of the claim in issue be disclosed, either expressly or under principles of inherency, in a single prior art reference." Corning Glass Works v. Sumitomo Electric, 868 F.2d 1251, 1255-56, 9 USPQ2d 1962, 1965 (Fed. Cir. 1989).

Javeri teaches an ammonia or ammonia/urea plant and the generation of power used in such plants. (Page 1, lines 5-8.) Like the appellant, Javeri describes an apparatus comprising: a gas turbine (Fig. 1, numeral 4) connected to an alternator (i.e., a power generator) (Fig. 1, numeral 3); a combustion chamber of at least one reformer (Fig. 1, reformer 1); and a line (i.e., a conduit) (Fig. 1, numeral 5). Javeri makes no mention of the use of a heater or a fan in line 5. In fact, Javeri teaches that "the primary reformer furnace utili[z]es gas turbine exhaust as the preheated combustion air" (page 1, lines 69-70) and that "the provision for a large combustion preheater and associated forced draft fans is eliminated" (page 2, lines 49-50).

Given these teachings, we share the examiner's view that Javeri describes each and every limitation of appealed claim 15. In re Schreiber, 128 F.3d 1473, 1477, 44 USPQ2d 1429, 1431 (Fed. Cir. 1997).

The appellant argues that Javeri has a disclaimer (page 1, lines 100-103), which states: "[i]n the interests of clarity many of the process lines are omitted since the chemical production process is well known in the art." (Appeal brief filed Jun. 5, 2002, paper 25, page 5). Appellant further argues: "A fan blowing exhaust gas into Javeri's reformer 1 can

be considered as part of Javeri's chemical production process plant, and thus is subject to having been omitted in the interests of clarity." (Id.)

The appellant's position is not well taken. As we discussed above, Javeri makes no mention of the use of a heater or a fan in line 5. In fact, Javeri appears to teach exactly the opposite when he states that "the primary reformer furnace utili[zes] gas turbine exhaust as the preheated combustion air" (page 1, lines 69-70) and "the provision for a large combustion preheater and associated forced draft fans is eliminated" (page 2, lines 49-50). Moreover, the appellant's position is grounded on conclusory statements that are not supported by objective evidence.¹

Under these circumstances, we hold that the examiner has discharged the burden of establishing a prima facie case of anticipation.

¹ It is well settled that mere lawyer's arguments and conclusory statements, which are unsupported by factual evidence, are entitled to little probative value. In re Geisler, 116 F.3d 1465, 1470, 43 USPQ2d 1362, 1365 (Fed. Cir. 1997); In re De Blauwe, 736 F.2d 699, 705, 222 USPQ 191, 196 (Fed. Cir. 1984); In re Wood, 582 F.2d 638, 642, 199 USPQ 137, 140 (CCPA 1978); In re Lindner, 457 F.2d 506, 508-09, 173 USPQ 356, 358 (CCPA 1972).

35 U.S.C. § 103(a): Claims 10-14

We need to address only the independent claims among claims 10 through 14, i.e., claims 10 and 11.

We have already addressed the teachings of Javeri above. Muenger teaches the use of an exhaust gas overpressure "in the range of 2 to 3.4 atm (30 to 50 psia)." (Col. 3, lines 28-29.)

The examiner argues that Muenger teaches exhaust gases from a turbine at a pressure of between 2 to 3.4 atm (30-50 psia) and that therefore "[i]t would have been obvious to one of ordinary skill in the art at the time of the claimed invention to use the Javali [sic] apparatus at an overpressure of 0.5 bar in view of the Muenger teaching in order to: 1) increase the heat transfer from the combustor to steam 2 [sic]; [and] 2) eliminate the stack exhaust fan and save its cost." (Final Office action, page 3.) According to the examiner, "it is clear beyond doubt that exhaust overpressures of 0.5 bars were within the norms of conventionally used pressures at the time of the claimed invention according to the needs of the application considered." (Answer, page 4.)

The appellant, on the other hand, counters that the Examiner has not established a prima facie case of obviousness. (Appeal brief, pages 5-10.) Specifically, the appellant argues that neither Javeri nor Muenger teaches "the overpressure" range

recited in the appealed claims. (Id. at page 6.) The appellant further argues that there is no motivation or suggestion to modify Javeri to control the operation of Javeri's gas turbine so as to supply exhaust gas to the reformer at an overpressure of approximately 0.5 bar. (Appeal brief, page 9.)

As a preliminary matter, we note that the pressure units of the appellant's claimed invention and Muenger must be converted to the same units. The appellant's "overpressure of approximately 0.5 bar" (claims 10 and 11) is expressed as gauge pressure while Muenger's "2 to 3.4 atm (30 to 50 psia)" (col. 3, lines 28-29) indicates absolute pressure. Therefore, 1 atmosphere (or 1.013 bars) must be added to the appellant's recited pressure. It follows then that the appellant's converted pressure value would be 1.513 bars (or approximately 21.94 psia), as distinguished from Muenger's 2 to 3.4 atm (30 to 50 psia; 2.026 to 3.444 bars).

Even if Javeri and Muenger can be combined as proposed by the examiner, the examiner has offered no rationale on why one of ordinary skill in the art would have been led to operate at a pressure outside the pressure range disclosed in Muenger. In this regard, Muenger's disclosed pressures do not overlap with the appellant's claimed range. Furthermore, while the examiner argues that "[i]t would have been obvious to one of ordinary

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skill in the art at the time of the claimed invention to use the Javali [sic] apparatus at an overpressure of 0.5 bar in view of the Muenger teaching in order to: 1) increase the heat transfer from the combustor to steam 2 [sic]; [and] 2) eliminate the stack exhaust fan and save its cost," the examiner has not identified any evidence that would substantiate this argument.

Accordingly, we hold that the examiner has not carried the burden of establishing a prima facie case of obviousness as to appealed claims 10 through 14.

Summary

In summary, we affirm the examiner's rejection under 35 U.S.C. § 102(b) of appealed claim 15 as anticipated by Javeri. We reverse, however, the rejection under 35 U.S.C. § 103 of appealed claims 10 through 14 as unpatentable over Javeri in view of Muenger.

The decision of the examiner is therefore affirmed in part.

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No time period for taking any subsequent action in connection with this appeal may be extended under 37 CFR § 1.136(a).

AFFIRMED IN PART

Thomas A. Waltz)	
Administrative Patent Judge)	
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)	BOARD OF PATENT
Peter F. Kratz)	
Administrative Patent Judge)	APPEALS AND
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