

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte ROBERT S. BOSKO

Appeal 2008-1719
Application 10/606,873
Technology Center 1700

Decided: March 27, 2008

Before CHUNG K. PAK, CHARLES F. WARREN, and
JEFFREY T. 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 from a final rejection of claims 1, 2, 5, 8, 36, 37, and 40. Claims 3, 6, 7, 38, 41, and 42 have been withdrawn from consideration.¹ We have jurisdiction under 35 U.S.C. § 6.

¹ The Examiner inadvertently indicated that claim 2 was withdrawn from consideration. (Ans. 2). It is apparent from the rejection repeated in the Answer and the Final Rejection that claim 3 was the claim not subject to the rejection and withdrawn from consideration.

Appellant's invention relates to a method of cleansing a filter by exposing the filter to the purified water. According to Appellant, “[i]n the simplest form, purified water is used to rinse or backflush a filter or filter cartridge.” (Spec. 3). Representative claims 1 and 36 appear below:

1. A method of cleansing a filter, comprising:
 - passing water from a water source through a filter, thereby producing filtered water;
 - delivering the filtered water to an end use device;
 - providing a source of purified water, wherein the purified water has a lower total dissolved solids reading than the water being filtered; and
 - exposing the filter to the purified water.
36. A method for backflushing a filter, comprising:
 - a. flowing water from a water source through a primary flowpath in a filtered flowpath to an end use device, thereby delivering filtered water to the end use device;
 - b. providing a source of purified water, wherein the purified water has a lower total dissolved solids reading than the water being filtered;
 - c. switching an inlet valve, a drain valve, and a flush valve in the filtered flowpath from the primary flowpath to a secondary flowpath that allows purified water into the filtered flowpath;
 - d. flowing the purified water into the secondary flowpath, wherein the secondary flowpath allows the purified water to flow backwards through the filter for a predetermined interval to remove or dissolve filtered media or unclog a filter in the primary flowpath; and
 - e. switching the inlet valve, the drain valve, and the flush valve from the secondary flowpath to the primary flowpath to resume the delivery of filtered water to the end use device.

The Examiner relies on the following references in rejecting the appealed subject matter:

Hisada	6,190,557 B1	Feb. 20, 2001
McGowan	6,562,246 B2	May 13, 2003

Claims 1, 2, 5, 8, 36, 37, and 40 stand rejected under 35 U.S.C. § 103(a) as unpatentable over Hisada and McGowan.

We have thoroughly reviewed each of Appellant's arguments for patentability. However, we are in complete agreement with the Examiner that the claimed subject matter would have been obvious to one of ordinary skill in the art within the meaning of § 103 in view of the applied prior art. Accordingly, we will sustain the Examiner's rejection.

Appellant's arguments in support of patentability are directed to independent claims 1 and 36. Appellant has not presented separate arguments for the independent claims. Thus, the patentability of dependent claims 2, 5, 8, 37, and 40 will stand or fall with the independent claims 1 and 36.

Under 35 U.S.C. § 103, the factual inquiry into obviousness requires a determination of: (1) the scope and content of the prior art; (2) the differences between the claimed subject matter and the prior art; (3) the level of ordinary skill in the art; and (4) secondary considerations. *Graham v. John Deere Co.*, 383 U.S. 1, 17-18 (1966). “[A]nalysis [of whether the subject matter of a claim would have been obvious] need not seek out precise teachings directed to the specific subject matter of the challenged claim, for a court can take account of the inferences and creative steps that a person of ordinary skill in the art would employ.” *KSR Int'l Co. v. Teleflex, Inc.*, 127 S. Ct. 1727, 1740-41 (2007) quoting *In re Kahn*, 441 F.3d 977, 988

(Fed. Cir. 2006); *In re Bozek*, 416 F.2d 1385, 1390 (CCPA 1969) (“Having established that this knowledge was in the art, the examiner could then properly rely, as put forth by the solicitor, on a conclusion of obviousness ‘from common knowledge and common sense of the person of ordinary skill in the art without any specific hint or suggestion in a particular reference.’”); *In re Hoeschele*, 406 F.2d 1403, 1406-07 (CCPA 1969) (“[I]t is proper to take into account not only specific teachings of the references but also the inferences which one skilled in the art would reasonably be expected to draw therefrom . . .”).

The Examiner contends that Hisada discloses a method of cleansing a filter including passing water from a water source through a filter producing filtered water, providing a source of purified water (e.g., filtered water from the permeate side of the reverse osmosis membrane). The Examiner contends that the purified water has a lower total dissolved solids reading than the water being filtered since a reverse osmosis filter can remove up to 99% dissolved minerals from water. The Examiner contends that Hisada discloses exposing the filter to purified water by backwashing. The Examiner contends that Hisada differs from the claimed invention in that a reference does not disclose delivering the filtered water to an end use device. The Examiner contends that McGowan discloses the concept of delivering a filtered fluid to an end use device. The Examiner concludes that it would have been obvious to have modified the method of Hisada to include the step of delivering the filtered water to an end use device. (Ans. 3-5).

Appellant contends that the filters of the present invention incapable of removing dissolved solids from the water. Consequently, the total dissolved solids reading (TDS) of the water being filtered in the present

invention is substantially identical to the total dissolved solids of the filtered water that is delivered to the end use device. Conversely, in Hisada in view of McGowan, the total dissolved solids of the water prior to the separation membrane is higher than the total dissolved solids after passing through the membrane and delivered to the end use device. Thus, Appellant contends that the cited prior art fails to create the claimed invention. (Br. 6-7).

The issue in this appeal is whether the Examiner has carried the burden of establishing a *prima facie* case of obviousness for the rejection advanced on appeal. The issue turns on whether the Examiner has reasonably determined that Hisada provides a filter that creates “purified water” that may be used to expose (backflush) the filter within the meaning of 35 U.S.C. §103(a).

Appellant has not contended that Hisada does not disclose exposing and/or backflushing the filter with water.² Rather, Appellant’s traversal of the rejection is based upon the amount of dissolved solids contain in the water that is used to expose and/or backflush the filter. As indicated above, Appellant acknowledges that the water after filtration by Hashida has a lower total solid content. The claims specify passing water from a water source through a filter and exposing the filter to the purified water.³ Hashida discloses passing water from a water source through a filter and exposing the filter to the purified water as required by claim 1. The water

² Appellant has not contended that it would not have been obvious to have modified the method of Hisada to include the step of delivering the filtered water to an end use device.

³ The subject matter of claim 1 does not require purified water to be forced through the filter. Thus, purified water that is in contact with the filter would meet the “expose” requirement of the claimed invention.

from Hashida on the non-permeate side (after filtration) that is in contact with the filter meets the exposure requirement of independent claim 1. It is noted that Appellant has not argued that Hashida does not disclose or suggests utilizing this filtered water in the backflushing operation. It is further noted that a filter is recognized as any substance through which liquid or gas is passed to remove suspended impurities or to recover solids.⁴ The present record reveals that a membrane is a form a filter.⁵

Appellant's arguments regarding claim 36 substantially parallel those presented for claim 1. (Br. 10-11). Appellant's argued distinction over the cited prior art is premised upon the water utilized in the backflushing operation. The water utilized in the backflushing operation of the cited prior art has been discussed above. We fail to find a patentable distinction between the cited prior art and the subject matter of claim 36.

For the foregoing reasons and those presented in the Answer, the rejection of claims 1, 2, 5, 8, 36, 37, and 40 under 35 U.S.C. § 103(a) is affirmed. As a final point, we note that Appellant bases no argument upon objective evidence of nonobviousness, such as unexpected results.

ORDER

The rejection of claims 1, 2, 5, 8, 36, 37, and 40 under 35 U.S.C. §103(a) is affirmed.

⁴ See the entry for the term "filter" at dictionary.com. (*Dictionary.com Unabridged (v 1.1) (The American Heritage® Science Dictionary Copyright © 2002)*).

⁵ See, for example, the excerpt from the U.S. Manual of Classification attached as Appendix B to Appellant's Brief. (16-B2).

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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).

AFFIRMED

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