

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte CHRISTOPHER A. MICHALUK

Appeal 2007-4040
Application 10/274,815
Technology Center 3600

Decided: January 3, 2008

Before THOMAS A. WALTZ, PETER F. KRATZ, and
CATHERINE Q. TIMM, *Administrative Patent Judges*.

KRATZ, *Administrative Patent Judge*.

DECISION ON APPEAL

This is a decision on an appeal from the Examiner's final rejection of claims 1-15. Claim 16, the only other claim that remains pending in this application, stands withdrawn from further consideration by the Examiner as drawn to a non-elected invention. We have jurisdiction pursuant to 35 U.S.C. § 6.

Appellant's invention is directed to a method for supplying metal material from a supplier or agent to a sputtering target manufacturer wherein a portion of the metal material supplied that is not used in a manufactured sputtering target is returned to the supplier or agent and the manufacturer is charged only for the metal material not returned. Claim 1 is illustrative and reproduced below:

1. A method of supplying a quantity of non-precious metal material comprising:

(a) supplying from a supplier or agent a quantity of non-precious metal material to a sputtering target manufacturer, wherein said sputtering target manufacturer forms at least one sputtering target from a portion of said quantity;

(b) returning a second portion of said quantity not present in said at least one sputtering target to said supplier or agent thereof; and

(c) charging said manufacturer only for said first portion of said quantity not returned to said supplier or agent thereof.

The Examiner relies, *inter alia*, on the following prior art reference as evidence in rejecting the appealed claims:

Passive Component Industry, "Sons of Gwalia Clarifies Tantalum Supply-and-Demand Issues," November/December 2001, PP28,30 (hereafter the "PCI" reference)

Claims 1-15 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over PCI. We affirm. Our reasoning follows.

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. *See Graham v. John Deere of Kansas City*, 383 U.S. 1, 17-18 (1966). The analysis supporting obviousness should be made explicit and should “identify a reason that would have prompted a person of ordinary skill in the [art] to combine the elements” in the manner claimed. *KSR Int'l Co. v. Teleflex, Inc.*, 127 S. Ct. 1727, 1741 (2007). “The combination of familiar elements according to known methods is likely to be obvious when it does no more than yield predictable results.” *KSR*, 127 S. Ct. at 1739.

In considering the question of the obviousness of the claimed invention in view of the prior art relied upon, we are guided by the basic principle that the question under 35 U.S.C. § 103 is not merely what the references expressly teach but what they would have suggested to one of ordinary skill in the art at the time the invention was made. *See Merck & Co. v. Biocraft Labs., Inc.*, 874 F.2d 804, 807 (Fed. Cir. 1989) and *In re Keller*, 642 F.2d 413, 425 (CCPA 1981). That is, the question of obviousness cannot be approached on the basis that an artisan having ordinary skill would have known only what they read in the references, because such artisan is presumed to know something about the art apart from what the references disclose. *See In re Jacoby*, 309 F.2d 513, 516 (CCPA 1962). Nor is it necessary that suggestion or motivation be found within the four corners of the references themselves. Indeed, a conclusion of obviousness may be made 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. *See In re Bozek*, 416 F.2d 1385, 1390 (CCPA 1969).

Appellant argues the appealed claims together as a group (Br. 7). Hence, we select appealed claim 1, the sole independent claim on appeal, as the representative rejected claim on which we decide this appeal. Appealed claim 1 requires three steps as set forth in the reproduced claim above.

PCI reports and discusses supply and demand issues and long term contracts surrounding tantalum metal supply. For example, the PCI article discloses that a supplier (Sons of Gwalia) furnishes metal, as a raw material, to powder and metal producers, such as Cabot Corporation and H.C. Starck. While the Examiner may not have fairly established that PCI describes the here claimed three method steps of claim 1 as argued, PCI is not the sole evidence before us in considering the Examiner's obviousness rejection under 35 U.S.C. § 103(a). In particular the Examiner maintains that "supplying valve metal materials, e.g., tantalum, niobium, titanium, aluminum, in mill form from mining companies to a sputtering target manufacturer to for[m] at least on[e] sputtering target is common knowledge in the metal supplying art" (Ans. 3). In this regard, we note that Appellant acknowledges that:

In the sputter application field, the typical supply chain of metal material includes a primary metal processor who processes metal ores and raw materials into metals or alloys thereof (or fine metal-containing material such as oxide, nitride, silicide, etc.), typically of a high purity. Refinement of the metal material by such processing produces melt feedstock. As its name suggests, the melt feedstock is then melted or otherwise consolidated by the primary metal processor into forms such as ingots that are then further processed into shapes or mill forms such as billets, rods, plates, or discs. The mill forms are then sold to a sputtering target manufacturer. The target manufacturer then performs additional refinement techniques on the mill forms prior to fabricating the material to

produce a finished sputtering target assembly comprising a precision-machined target or metal target blank attached to a backing plate.
(Specification, ¶ 0003)

In addition, Appellant acknowledges that drawing Figure 1 of the subject Application shows traditional processing and supply of tantalum from a primary metal processor to a sputtering target manufacturer in block diagram form. In contrast, the allegedly new method of the subject Application is shown in drawing Figure 2. (Also, see Br. 2-3, 8, and 10). Given those acknowledgments by Appellant, we agree with the Examiner's common knowledge determination at least in so far as the above-identified acknowledgements evidence that steps (a) and (b) of claim 1 were known in the art as a traditional method of supplying non-precious metal material, such as tantalum material in mill form, to a sputtering target manufacturer.¹

Having considered Appellant's arguments in the Brief and the Reply Brief, we are not persuaded that these arguments are based on fact specific denials that squarely contradict the Examiner's position at least with respect to the typical well known nature of steps (a) and (b) of representative claim 1 in light of Appellant's averred acknowledgements made in the subject Specification and Figure 1 of the drawings of this Application, as discussed above. It follows that the Examiner's determination that steps (a) and (b) of

¹ It is axiomatic that admitted prior art in an applicant's Specification may be used in determining the patentability of a claimed invention and that consideration of the prior art cited by the Examiner may include consideration of the admitted prior art found in an applicant's Specification. *In re Nomiya*, 509 F.2d 566, 570-571 (CCPA 1975); *In re Davis*, 305 F.2d 501, 503 (CCPA 1962); *In re Hedges*, 783 F.2d 1038, 1039-1040 (Fed. Cir. 1986).

claim 1 represents common knowledge (known traditional method steps) in the art of supply of metal materials, such as tantalum, to target manufacturers has not been persuasively refuted in the Briefs given these acknowledgements that remain standing on this record.

Moreover, even if step (b) of claim 1 were not considered to be acknowledged as known in the art, we have no doubt that a sputtering target manufacturer and/or a supplier would have found such a returning step to have been an obvious option. In this regard, the supplier and manufacturer would quite naturally desire an arrangement that involves the return or recycling of scrap material to the supplier because such recycle material possesses metal values that a metal supplier can winnow and employ in their delivered products. Of course, the manufacturer would expect to be compensated for the return of such scrap material for the intrinsic value thereof. Otherwise, the target manufacturer would select the obvious alternative of selling the scrap metal on the open market to another metal material supplier or some other entity.

As to step (c) of representative claim 1, the traditional method acknowledged by Appellant in their Specification includes the transactional operation of selling the metal material to the target manufacturer as part of the acknowledged traditional supply method. Appealed claim 1, step (c), differs from the traditional acknowledged method of supply by specifying that the supplier sets the charge for the metal material supplied based on giving a credit to the target manufacturer for returned scrap material that was not turned into a product sputtering target by the manufacturer. In other words, the

(full) charge is levied only for the portion of the material delivered to the manufacturer that is not returned as scrap to the supplier.

Concerning this billing or charging feature, we note that PCI discloses that:

Supply chain management is an issue for the whole tantalum industry. Given the existing tantalum reserve and resource base and existing production capacity in terms of both raw and refined materials, the tantalum industry can be supplied with a diverse range of products at reasonable prices. The issue is one of cooperation and shared responsibility for an efficient and orderly market, in terms of both supply and price.

(PCI, p. 30)

Furthermore, Appellant acknowledges that “Precious metal products, including sputtering targets, are often leased; the customer is charged for the material consumed plus the processor’s fabrication fee, plus the interest on the value of metal from the date of sale to the date of return” (Specification, ¶ 0006).

Given this evidence concerning acknowledged and/or published prior art consensual selling/leasing arrangements and business dealings between separate entities in the supply chain of various metal materials from suppliers to manufacturers, we agree with the Examiner that it would have been obvious to one of ordinary skill in the relevant art to arrive at the claimed subject matter including the claimed charging step by using conventional business acumen and/or common sense. In this regard, the details of any such charging arrangement arrived at for metal material delivered by the supplier depends on factors such as the market forces surrounding a particular metal material and products made therefrom, the

relative bargaining power of the parties, and the goodwill of the manufacturing and supplying entities involved. However, there are only a limited number of ways for a metals material supplier to arrange for billing for the metal material delivered to a sputtering target manufacturer and paying for any returned scrap material. The provision of a credit for returned material would have been an obvious option to the parties involved in a supply arrangement where, as here, the scrap metal byproduct of the manufacturer has at least some value to both the supplier of the metal material and the manufacturer. Thus, we agree with the Examiner's obviousness assessment in that the representative claim 1 metal material supply process including the charging step thereof falls well within the boundaries of that which would have been within the grasp of one of ordinary skill in the art. In light of the above, the arguments set forth in the Briefs are unavailing.

As a final point, we note that the Appellant has not furnished any evidence in support of their unobviousness position for the claimed process in order to rebut the *prima facie* case made out by the record evidence.

OTHER ISSUES

In the event of further prosecution of the subject matter of this application before the Examiner in this or another continuing application, the Examiner should consider whether or not dependent claims 2 and 3 are in compliance with the fourth paragraph of 35 U.S.C. § 112 given the claim 1, step (c) "only" charge limitation.

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CONCLUSION

On this record, the decision of the Examiner to reject claims 1-15 under 35 U.S.C. § 103(a) as being unpatentable over PCI 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)(1)(iv)(2006).

AFFIRMED

PL Initials
sld

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