

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 SOLOMON ZAROMB

Appeal No. 1997-3056
Application No. 08/377,966

HEARD: October 16, 2001

Before GARRIS, KRATZ and TIMM, Administrative Patent Judges.
GARRIS, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on an appeal which involves claims 1-8. The only other claims in the application, which are claims 9-20, have been allowed by the Examiner.

The subject matter on appeal relates to an apparatus for monitoring the concentration of an airborne analyte. This appealed subject matter is adequately illustrated by independent claim 1 which reads as follows:

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1. In apparatus for monitoring the concentration of an airborne analyte appertaining to the family of substances comprising lead, cadmium, zinc, chromium, uranium, or compounds of these metals, miscellaneous carcinogens, and other toxic contaminants, the improvement comprising;

a substantially gas- and liquid-impermeable container means;

means for introducing a substantially analyte-free liquid extractant into said container means;

means for rapidly sampling ambient air at a rate of at least 100 liters/minute and collecting particulates therefrom into said liquid extractant, said sampling means comprising an air intake means and an air venting means;

means for solubilizing the analyte contained in said particulates into a volume of not more than about 40 milliliters of liquid extractant, wherein said sampling means and said solubilizing means are both within the same enclosure and combined in a single device;

means for removing from said container means an analyte-enriched liquid extractant; and

means for estimating the concentration of the analyte in said analyte enriched liquid extractant.

The following references have been applied by the Examiner in the rejection before us on this appeal:

Zaromb et al. (Zaromb) 5,173,264 Dec. 22, 1992

DeAngelis et al. (DeAngelis) Anal. Chem., Vol. 48, No. 14:
pp. 2262-2263 Dec. (1976)

Heijne et al. (Heijne), Anal. Chem. Acta., 100 pp. 193-205 (1978)

Gunasingham et al. (Gunasingham), J. Electroanal. Chem,
186 pp. 51-61 (1985)

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"MiniKap 225/500 Microfiltration Modules," Microgon, Inc.
Laguna Hills, CA USA, T88 8-0433 2.5M" (pub. date 7/90)

Oakton Electrascan ECF1-Pb (EC-1 series) product literature with
a price list effective 3/1/91

Claims 1-4 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-16 of U.S. Patent No. 5,173,264 to Zaromb in view of the "MiniKap" brochure. According to the Examiner, "[t]he instant claims differ from the patent [sic, the patent claims] in the rate of sampling a throughput of at least 100 liters/minute [as recited in appealed independent claim 1], an effective filtration area of at least 500 square centimeters [as recited in dependent claim 2] and a hold up volume of not more than 40 milliliters [as recited in appealed independent claim 1]" (supplemental Examiner's answer, mailed Oct. 11, 2000 as Paper No. 26, page 4). In the last full paragraph on page 4 and the paragraph bridging pages 4 and 5 of the supplemental Examiner's answer (mailed October 11, 2000 as Paper No. 26), the Examiner presents the following rationale in support of his position that a person of ordinary skill in the art would conclude that the invention defined by the rejected claims is an obvious variation the invention defined in the patent claims:

The MiniKap 500 filtration module is well known in the art for application to filtration of gases. The

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MiniKap module has the advantages of a filter with "greater surface area in less space, higher flow rates, and minimal hold up volume... and the multiple end fitting configurations allow the MiniKap filter to be plumbed into virtually any system" (see the disclosure statement received 7/10/95, Appendix 8, page B-6 or the newly cited MiniKap 225/500 Microfiltration Modules). It would have been within the skill of the art to modify USP 5,173,264 to use a well known commercially available filtration unit, such as the MiniKap 500 module, to gain the advantages taught above.

The "MiniKap 500 module" is notoriously well known in the art to have the physical properties/specifications of an effective filtration area of 500 square centimeters, a 37 ml hold up volume and up to a 300 l/min flow rate at about 23 psi (see Applicant disclose on page 5 lines 3+ of the specification). It would have been obvious the modified USP 5,173,264 incorporating the MiniKap module would have met the claimed physical properties of a throughput of at least 100 liters/minute, an effective filtration area of at least 500 square centimeters and a hold up volume of not more than 40 milliliters.

The Examiner's obviousness-type double patenting rejections of the other appealed claims are based upon the references and rationale set forth above and further in view of the Electrascan, DeAngelis, Gunasingham, or Heijne references listed earlier in this decision.

We refer to the various briefs and answers of record for a complete exposition of the opposing viewpoints expressed by the Appellant and by the Examiner concerning the obviousness-type double patenting rejections before us on this appeal.

OPINION

We perceive a number of flaws in the rationale used by the Examiner in constructing the obviousness-type double patenting rejections before us. One of the most fundamental errors made by the Examiner relates to his aforequoted conclusion that "[i]t would have been within the skill of the art to modify USP 5,173, 264 [sic, to modify the claimed apparatus of USP 5,173,264] to use a well known commercially available filtration unit, such as the MiniKap 500 module, to gain the advantages taught above." As properly indicated by the Appellant, the apparatus defined by the claims of the Zaromb patent and the filtration unit described in the MiniKap brochure are incompatible in terms of being combined, in the absence of hindsight, in such a manner as to result in an apparatus of the type defined by the rejected claims on appeal.

In this regard, it is appropriate to emphasize that the Examiner has offered little if any specific insight on how these two apparatus structures would have been combined by one with ordinary skill in the art. Moreover, we perceive no suggestion or motivation, in the absence of hindsight, which would have led an artisan with ordinary skill to combine these structures in such a manner as to yield an apparatus of the type here claimed.

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Indeed, while it may be possible to combine these structures in certain ways, the resulting apparatus would not only fail to correspond to the here claimed apparatus but might even be incapable of performing the functions desired for the apparatus defined by the patent claims or for that matter the functions desired for the apparatus defined by the appealed claims.

In light of the foregoing, the Examiner erroneously concluded that it would have been obvious "to modify [the claimed apparatus of] USP 5,173,264 to use a well known commercial available filtration unit, such as the MiniKap 500 module", in such a manner as to result in the here claimed apparatus. Clearly, the only way in which such a modification would have yielded the apparatus defined by the appealed independent claim is via the application of impermissible hindsight wherein that which only the inventor has taught is used against its teacher. See W.L. Gore & Assocs. v. Garlock, Inc., 721 F.2d 1540, 1553, 220 USPQ 303, 312-313, (Fed. Cir. 1983), cert denied, 469 U.S. 851 (1984).

For this reason alone, we cannot sustain the Examiner's obviousness-type double patenting rejection of claims 1-4 as being unpatentable over claims 1-16 of U.S. Patent No. 5,173, 264 in view of the MiniKap brochure. Further, because the fatal error made by the Examiner in this rejection also applies to the other rejections

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before us, we also cannot sustain these other obviousness-type double patenting rejections of claims 5-8. In short, we cannot sustain any of the obviousness-type double patenting rejections constructed and advanced on this appeal by the Examiner because they are all tainted with fatal error, as least in the form of impermissible hindsight, in relation to the Examiner's conclusion that it would have been obvious "to modify" the patent claim apparatus "to use" a filtration unit of the type disclosed in the MiniKap brochure.

OTHER ISSUES

Although the double patenting rejections formulated by the Examiner cannot be sustained, it is our determination that the record before us presents other issues involving obviousness-type double patenting which should be addressed and resolved by the Appellant and the Examiner. These other issues become apparent upon a proper evaluation of the apparatus defined by the appealed claims in comparison with the apparatus defined by the claims of Patent No. 5,173,264 to Zaromb. Specifically, it is our perception that the apparatus structure defined by the patent claims corresponds to the structure (i.e., satisfies the structural requirements) defined by certain of the appealed claims.

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Concerning this matter, we are mindful of the Appellant's view that the here claimed apparatus distinguishes over the apparatus claimed in the patent because the former is used for collecting particulates and solubilizing the analyte contained in these particulates. From our perspective, however, a proper evaluation of the aforementioned issues requires application of the well established legal principal that the manner or method in which an apparatus or machine is to be utilized is not germane to the issue of patentability of the apparatus or machine itself. See In re Casey, 370 F.2d 576, 580, 152 USPQ 235, 238 (CCPA 1967). Thus, for example, a claimed apparatus does not patentably distinguish over a prior art apparatus if the latter is structurally indistinguishable from and is capable of performing the functions of the former. See In re Yanush, 477 F.2d 858, 959, 177 USPQ 705, 706 and In re Glass, 474 F.2d 1015, 1019, 176 USPQ 529, 532 (CCPA 1973).

With these considerations in mind, we observe that appealed claims 1 and 3 define an apparatus embodiment of the type shown in Figure 3 of the Appellant's drawing. Similarly, patent claims 1 and 2, inter alia, define an apparatus embodiment of the type shown in Figure 2 of patentee's drawing, and this embodiment structurally corresponds to the Figure 3 embodiment defined by appealed claims

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1 and 3. Particularly when viewed from this perspective, the apparatus defined by appealed claims 1 and 3 appears to be structurally indistinguishable from the apparatus defined by patent claims 1 and 2. Stated otherwise, each of the structural requirements of appealed claims 1 and 3 appears to be fully satisfied by the apparatus structure of patent claims 1 and 2.

As we have previously indicated the structure defined by these patent claims must be capable of performing the functions of appealed claims 1 and 3. Concerning this point, we here reiterate the previously quoted factual finding by the Examiner that "[t]he instant claims differ from the patent [claims] in the rate of sampling a throughput of at least 100 liters/minute [as recited in appealed independent claim 1] ... and a hold up volume of not more than 40 milliliters [as recited in appealed independent claim 1]". This finding suggests that the structure defined by the patent claims is not capable of performing the appealed independent claim 1 functions of "rapidly sampling ambient air at a rate of at least 100 liters/minute" and of "solubilizing the analyte contained in said particulates into a volume of not more than about 40 milliliters of liquid extractant". However, this factual finding by the Examiner is clearly erroneous. In light of the disclosure

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in lines 34-38 in column 6 and in lines 54-60 in column 5 of the Zaromb patent, it is appropriate to regard the apparatus defined by the patent claims as being capable of sampling air at a rate of at least 100 liters/minute (i.e., the rate of 0.7 cubic meters per minute disclosed in column 6 of the patent is equal to a rate of 700 liters per minute) and of solubilizing analyte into a volume of not more than about 40 milliliters of liquid extractant (i.e., column 5 of the patent discloses a volume of liquid equal to 1-4 milliliters).

Under the circumstances recounted above, it appears that the apparatus defined by appealed claims 1 and 3 fails to distinguish in terms of functional capability as well as structure over the apparatus defined by the patent claims. It is appropriate, therefore, that the Examiner and the Appellant consider whether at least pending claims 1 and 3 are subject to a rejection under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-16 of U.S. Patent 5,173,264 to Zaromb.

Particularly in light of the prior prosecution of this application, it is appropriate to emphasize that the aforementioned consideration of obviousness-type double patenting must conform with the guidelines concerning obviousness and double patenting

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in the Manual of Patent Examining Procedure (MPEP) especially the guidelines set forth in MPEP section 804. It is similarly appropriate to emphasize that the record of this appeal reveals no support for an obviousness-type double patenting rejection of pending dependent claim 2. This claim is directed to the Appellant's filter module embodiment which is shown in Figure 2 of the application drawing and which includes a filter module of the type shown in the MiniKap brochure (according to the disclosure on pages 4 and 5 of the subject specification). As previously indicated, no proper basis exists for the Examiner's above discussed conclusion that it would have been obvious to somehow combine the apparatus of the patent claims with the filter module of the MiniKap brochure to thereby obtain an apparatus of the type defined by appealed claim 2.

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SUMMARY

The decision of the Examiner is reversed.

REVERSED

BRADLEY R. GARRIS)	
Administrative Patent Judge)	
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)	
)	BOARD OF PATENT
PETER F. KRATZ)	APPEALS
Administrative Patent Judge)	AND
)	INTERFERENCES
)	
)	
)	
CATHERINE TIMM)	
Administrative Patent Judge)	

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