

THIS OPINION WAS NOT WRITTEN FOR PUBLICATION

The opinion in support of the decision being entered today
(1) was not written for publication in a law journal and
(2) is not binding precedent of the Board.

Paper No. 19

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte THOMAS B. GREEN
and ROBERT G. WESTENDORF

Appeal No. 1997-2954
Application No. 08/401,876

ON BRIEF

Before CALVERT, FRANKFORT, and NASE, Administrative Patent Judges.

FRANKFORT, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on appeal from the examiner's final rejection of claims 22-45, which are all of the claims pending in the application. Claims 1-21 have been canceled.

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Appellants' invention relates to a transport device (2) for conveying sample vials (20), the device including a platen (4) having a plurality of chambers (16), each of the chambers including reduced diameters at the bottoms thereof for retaining one of the sample vials (20) and providing access to retained sample vials from below, a platen gear (52) and a drive motor (66) with a drive gear (68) cooperating with the platen gear (52) for rotating the platen (4). The transport device includes a first vial transport (86) having a first displaceable rod (88) moved to enter the chamber (16) from below through an opening (100) to engage and convey the vial (20) into the chamber (16) from a point above the chamber (16) and the reverse. The sample vials (20) have caps with septums and contain sample material with a headspace that includes volatile gases for analysis by gas chromatography. Appellants provide the transport device (2) with an electrically powered heater (76) to heat the platen (4) and the sample vials (20), a vial mixing device (102) including a second displaceable rod (104), a motor (109) to move the rod (104) into engagement with a sample vial (20) and a solenoid (110) that pulses the rod to mix the contents of the vial to increase the rate of

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transport of gaseous components to the headspace, a needle (114) for extracting the gaseous component from the headspace through the septum, and means for moving the vial into engagement with the needle (114) including a third rod (120) and a motor (126). A copy of representative independent claim 22, reproduced from appellants' brief, is attached to this decision.

The prior art references of record relied upon by the examiner as evidence of obviousness are:

U.S. Patents

Natelson	3,324,628	Jun. 13, 1967
Lorch et al. (Lorch)	3,832,140	Aug. 27, 1974
Chlosta et al. (Chlosta)	4,476,733	Oct. 16, 1984
Stone	4,713,974	Dec. 22, 1987

Foreign Patents

Fujitsuka	(Japan)	58-80555	May 14, 1983
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Articles

R. Otson (Otson), "Automatic Liquid Injector for Headspace Gas Chromatography," Analytical Chemistry, Vol. 53, No. 6, pages 929-931 (1981).

Yamano et al. (Yamano)(Japan), "A Simple Determination Method of Bromide Ion in Plasma of Methyl Bromide Workers by Head Space Gas Chromatography," J. Ind. Health, Vol. 29, pp. 196-201 (1987).

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Claims 22-45 stand rejected under 35 U.S.C. § 112, first paragraph, on the ground that the disclosure is enabling only for

claims limited to a rotatable platen with a means to rotate the platen.

Claims 22-45 stand additionally rejected under 35 U.S.C. § 103 as being unpatentable over Stone in view of Otson, Chlosta, Lorch, Fujitsuka, and Natelson or Yamano.

Rather than attempt to reiterate the examiner's full commentary with regard to the above noted rejections and the conflicting viewpoints advanced by the examiner and appellants regarding the rejections, we make reference to the final rejection (Paper No. 13, mailed June 19, 1996) and the examiner's answer (Paper No. 16, mailed March 25, 1997) for the reasoning in support of the rejections, and to appellants' brief (Paper No. 15, received February 20, 1997) and reply brief (Paper No. 17, received May 30, 1997) for the arguments thereagainst.

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OPINION

In reaching our decision in this appeal, we have given careful consideration to the appellants' specification and claims, to the applied prior art references, and to the respective positions articulated by the appellants and the examiner.

We first turn to the examiner's rejection of claims 22-45 under 35 U.S.C. § 112, first paragraph, wherein the examiner is of the opinion that the disclosure is enabling only for claims limited to a rotatable platen with a means to rotate the platen. The examiner refers to MPEP §§ 706.03(n) and 706.03(z) and states that the instant claims are of a broader scope than applicants' originally filed claims were intended to cover. Appellants note (brief, page 4) that MPEP § 2164.08, which is directed to a critical feature taught in the specification not being recited in the claims, replaces the MPEP sections cited by the examiner. Since MPEP §§ 706.03(n) and 706.03(z) were not part of the MPEP at the time the

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examiner wrote the answer and since MPEP § 2164.08, cited by appellants, appears to correspond to the examiner's statements, we agree with appellants that MPEP § 2164.08 is apparently the appropriate section for our consideration. Appellants state and we agree (brief, page 7) that according to the criteria set forth in MPEP § 2164.08, the scope of the claims before us on appeal does not exceed the level of enablement provided by appellants' specification and one skilled in the art at the time the invention was made would clearly be able to practice the invention claimed without using the rotary platen and without undue experimentation. With regard to the examiner's basis for the lack of enablement of claims 22-45 according to MPEP § 2164.08, the examiner provides no factual support for either lack of enablement or lack of written description of the subject matter set forth in the claims on appeal. The examiner's position (answer, page 4) is that the claims on appeal are of a broader scope than appellants' originally filed claims were intended to cover because the claims were originally limited to a rotatable platen. We agree with appellants (brief, page 4) that the examiner's position is

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misplaced under the prevailing law. We are of the view that the examiner has failed to provide any factual support to show that the rotary platen, in the original claims, is a critical element in the claims. In light of the foregoing, we will not sustain the examiner's rejection of claims 22-45 under 35 U.S.C. 112, first paragraph.

Now we look to the examiner's rejection of Claims 22-45 under 35 U.S.C. § 103 as being unpatentable over Stone in view of Otson, Chlosta, Lorch, Fujitsuka, and Natelson or Yamano.

The examiner relies on Stone (answer, page 4) to disclose a liquid sampling device comprising a rotatable sample tray (50, 60) having chambers with shoulders for retaining vials and a stationary needle (260, 270) disposed above the tray (50, 60). It is further urged that Stone provides a vertically displaceable rod (200) which is brought into engagement with sample vial (77) to push the vial into engagement with the needle (260). The examiner notes that

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Stone lacks 1) an automated vial transport that conveys a vial into a chamber from a point above the chamber, 2) agitating the vial while in the sample tray and 3) means to heat the sample tray. The examiner relies on Otson to teach the use of a liquid autosampler for sampling head space gas for gas chromatography. Chlosta is relied upon by the examiner (answer, page 5) to teach a device for feeding sample vials into a gas chromatograph including a rotatable heatable metal block or sample vessel store (30) which is heated by an electrically powered heater element, a lifting member (52) comprising a vertically displaceable rod to transport vials into the sample vessel store (30) from below the vessel store and out of the vessel store and a second device for lifting the sample vessel store (30) and the sample vials so the sample vials engage a stationary needle (34). The examiner relies upon Lorch to teach a displaceable rod (46, 48) for use on an analysis device (3) to transport sample containers (9) between an upper transport mechanism and a lower centrifuge device. The examiner relies on Fujitsuka and Natelson or Yamano (answer, page 6) to teach apparatus that agitate and heat sample vials during preparation.

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With the above teachings as a basis, the examiner concluded that it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate a heater and metal sample tray into the device of Stone as taught by Chlosta and to use the device to sample headspace gases as taught by Otson because it is well known in the art that heating the sampler prior to sampling decreases the sampling time significantly. The examiner further contended that it is well known in the art to use aluminum as a heat conducting metal as a turntable to hold sample containers. The examiner also contended that it would have been obvious to one of ordinary skill in the art to use a lifting means such as the lifting member of Lorch and incorporate a sample holding area such as taught by Chlosta or Lorch into the Stone device to allow sampling of the vials to occur at the same time as loading of the vials. Further, the examiner concluded that it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate an agitation step during heating as taught by Natelson or Yamano, using the motion of Fujitsuka, into the Stone device to facilitate thorough mixing of the sample.

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Implicit in this rejection is the examiner's view that the above noted modifications of Stone would have resulted in a transport device which corresponds to the subject matter defined in claims 22-45 on appeal.

The test for obviousness is what the combined teachings of the references would have suggested to one of ordinary skill in the art. See In re Young, 927 F.2d 588, 591, 18 USPQ2d 1089, 1091 (Fed Cir. 1991) and In re Keller, 642 F.2d 413, 425, 208 USPQ 871, 881 (CCPA 1981). In this case, we are in agreement with appellants' position (brief, pages 11-29) that the combined teachings of Stone, Otson, Chlost, Lorch, Fujitsuka, and Natelson or Yamano simply fail to disclose or otherwise provide an adequate suggestion for heating the racks (50) while on the carousel of Stone or heating the carousel that carries the racks, while also providing a vial mixing device of the type specified in the claims on appeal; nor any fair suggestion of using a mechanism for inserting or removing the vials from chambers through upper open ends into and from the vial holder chambers while the racks are on the carousel of Stone. We are of the opinion that the examiner has used

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improper hindsight to come to the conclusion that one of ordinary skill in the art would have combined the disparate teachings of Stone, Otson, Chlosta, Lorch, Fujitsuka, and Natelson or Yamano to create a transport device like that set forth in appellants' claims 22-45 on appeal.

In light of the foregoing, we cannot sustain the rejection of claims 22-24 and claims 25-45 which depend therefrom under 35 U.S.C. § 103 as being unpatentable over Stone in view of Otson, Chlosta, Lorch, Fujitsuka, and Natelson or Yamano.

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SUMMARY

The decision of the examiner to reject claims 22-45 under 35 U.S.C. § 112, first paragraph, is reversed, and the decision of the examiner to reject claims 22-45 under 35 U.S.C. § 103 is reversed.

REVERSED

	Ian A. Calvert)	
	Administrative Patent Judge)	
)	
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)	
	Charles E. Frankfort)	BOARD OF
PATENT	Administrative Patent Judge)	APPEALS AND
)	INTERFERENCES
)	
)	
	Jeffrey V. Nase)	
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APPENDIX

22. A device for heating and agitating sample vials having caps with a septum therein for withdrawing gaseous material from a headspace of said vials for analysis by gas chromatography, comprising:

a platen mounted on a support and having a plurality of chambers, each of said chambers having a bottom wall for supporting one of said sample vials on the bottom wall, the bottom wall having an opening for providing access to retained sample vials from below;

an electrically powered heater mounted to heat said platen;

a vial transport mounted relative to the platen for transporting a vial from above a chamber to lower the vial into such chamber, and the reverse;

a vial mixing device mounted relative to the platen and alignable with the chamber and comprising a rod at least partially extendible into said chamber through said opening from below to contact said vial and mix the contents by pulsating the vial to increase the rate of transport of gaseous components from liquid in said sample vial to said headspace; and

a needle mounted relative to the platen for alignment with the chamber for extracting material from said headspace through said septum after said needle punctures said septum of said vial.