



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

| APPLICATION NO.   | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|----------------------|---------------------|------------------|
| 11/563,463  | 11/27/2006  | Kurt Harnack         | SCH-16229.001       | 1007             |
| 75628   | 7590        | 01/24/2013           | EXAMINER            |                  |
| RANKIN, HILL & CLARK LLP<br>23755 LORAIN ROAD, SUITE 200<br>NORTH OLMSTED, OH 44070 |             |                      | KURTZ, BENJAMIN M   |                  |
|   |             |                      | ART UNIT            | PAPER NUMBER     |
|   |             |                      | 1778                |                  |
|   |             |                      | NOTIFICATION DATE   | DELIVERY MODE    |
|   |             |                      | 01/24/2013          | ELECTRONIC       |

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

75628@rankinhill.com  
digges@rankinhill.com  
shea@rankinhill.com

UNITED STATES PATENT AND TRADEMARK OFFICE

---

BEFORE THE PATENT TRIAL  
AND APPEAL BOARD

---

*Ex parte* KURT HARNACK and  
KIRSTEN SCHICKE

---

Appeal 2011-013634  
Application 11/563,463  
Technology Center 1700

---

Before CATHERINE Q. TIMM, MICHAEL P. COLAIANNI, and  
DEBORAH KATZ, *Administrative Patent Judges*.

COLAIANNI, *Administrative Patent Judge*.

DECISION ON APPEAL

Appellants appeal under 35 U.S.C. § 134 the final rejection of claims 1-6. We have jurisdiction over the appeal pursuant to 35 U.S.C. § 6(b).

We AFFIRM.

Appellants' invention is directed to a method for hermetically covering reaction vials of a filtering system (Spec. para. [0001]).

Claim 1 is illustrative:

1. A method for simultaneously filtering a plurality of liquid samples comprising the steps of:

a. providing:

a filtering system including, in the form of one flat composite structure, a plurality of reaction vials each having an upper aperture, a lower aperture and a filter situated between the upper aperture and the lower aperture; and

a cover unit for the filtering system, said cover unit comprising a resiliently deforming mat mounted to an underside of a rigid cover plate;

b. transferring the plurality of liquid samples into the filtering system such that each of the liquid samples is transferred into a separate one of the plurality of reaction vials;

c. identifying the location of reaction vials containing liquid samples and empty reaction vials after the transferring step has been completed;

d. arranging the cover unit on the filtering system such that the resiliently deforming mat engages on a top surface of the filtering system in a partial zone of the filtering system thereby sealing off upper apertures of empty reaction vials but not sealing off upper apertures of reaction vials containing liquid samples, the rigid cover plate being provided with a borehole allowing air inflow upon application of a vacuum and/or the rigid cover plate resting on the filtering system in a

less than hermetically sealed manner allowing air inflow upon application of a vacuum; and

e. applying a vacuum to the lower apertures of all reaction vials of the filtering system such that an air inflow passes through the borehole in the rigid cover plate and/or passes between the rigid cover plate and the filtering system on which the rigid cover plate rests in less than hermetically sealed manner, wherein the air inflow further passes through the reaction vials that are not sealed off by the resiliently deforming mat but does not pass through the reaction vials that are sealed off by the resiliently deforming mat.

Appellants appeal the following rejection:

Claims 1-6 are rejected under 35 U.S.C. § 103(a), as being unpatentable over Sanadi (US 5,516,490 issued May 14, 1996) in view of Steinel (US 6,666,978 B2 issued Dec. 23, 2003) and Appellants' admitted prior art (hereinafter "AAPA").

Appellants argue the subject matter of claim 1 only (App. Br. 10-24).

#### ISSUE

Did the Examiner reversibly err in determining that the combined teachings of Sanadi, Steinel and AAPA would have rendered obvious Appellants' method of claim 1? We decide this issue in the negative.

#### FINDINGS OF FACT AND ANALYSES

The Examiner's findings and conclusions may be located on pages 5-10 of the Answer. Specifically, the Examiner finds that Sanadi teaches all the features recited in claim 1, except for step (c) and the mat engaging the top surface of the filtering system in a partial zone sealing off upper

apertures of empty reaction vials of the claimed method (Ans. 5). The Examiner relies on Steinel or AAPA to teach that it is known to identify the location of and cover and seal empty vials in a partial zone of a filtering system (*id.* at 5-6). The Examiner concludes that it would have been obvious to perform step (c) and provide the mat of Sanadi with sealed apertures over unfilled reaction vials in a partial zone of the filtering system because the sealing of the unfilled vials avoids air leakage that would degrade the applied vacuum (*id.* at 6).

Appellants argue that Sanadi's well body 200 is not a cover as required by the claimed method because Sanadi discloses that well body 200 contains the liquid to be filtered (App. Br. 14). Appellants argue that Sanadi's disclosure at column 8, lines 10-14 to place a metal or plastic plate between the gasket 204 and filter 228 does not transform well body 200 into a cover (*id.* at 15-16). Appellants argue that the combination of Sanadi, Steinel, and AAPA fail to teach the claimed steps of providing a cover unit having a resiliently deforming mat mounted to an underside of a rigid cover plate, arranging the cover unit such that the rigid cover plate being provided with a borehole allowing air inflow upon application of a vacuum, and applying a vacuum such that an air inflow passes through the borehole in the rigid cover plate because the combined art fails to teach a rigid cover plate (*id.* at 17).

Contrary to Appellants' arguments, we agree with the Examiner's depiction on page 6 of the Answer that the insertion of the plastic or metal plate with holes (which the Examiner characterizes as a well body) between the gasket 204 and filter 228 would have reasonably rendered body 200 as a "cover plate." While Appellants do not direct us to any formal definition of

“cover plate” in the Specification, we note that Appellants exemplify embodiments where a perforated plate 46 is used as the rigid cover plate (Spec. paras. [0018], [0040], Fig. 2). Accordingly, a perforated member such as Sanadi’s body 200 is within the meaning of “cover plate” in the claim. Sanadi’s inverted assembly 188 shown in Figure 12 depicts body 200 covering the top surface of gasket 204 further underscoring that body 200 may reasonably be construed as a “cover plate” within the meaning of the claims.

Appellants argue that Sanadi fails to teach covering the apertures in body 200 with any covering such that a vacuum applied to the body 200 would simply provide lower airflow impedance to an unfilled vial thereby affecting the ability to aspirate liquid samples through the filter element (App. Br. 16). Appellants contend that one of ordinary skill in the art would have understood from the teachings of Steinel or AAPA to apply a covering over all the unfilled vials prior to applying a vacuum, which is not the claimed method (*id.* at 16-17). Appellants contend that covering apertures in Sanadi’s body 200 with either the resilient member or tape taught by Steinel or AAPA does not read on the claimed invention (*id.* at App. Br. 18).

Appellants’ arguments, however, fail to address the Examiner’s stated rejection which is based upon modifying Sanadi’s gasket 204 according to Steinel’s or AAPA’s teaching to cover unfilled vials to avoid air leakage that would degrade the vacuum in the system (Ans. 6, 8, 9). The Examiner is not proposing to cover the apertures in the top of Sanadi’s body 200 with a resilient member as argued by Appellants, but to modify Sanadi’s gasket 204 to include solid portions over unfilled vials and holes over the filled vials to

better control the vacuum in the filter system as taught by Steinel and AAPA.

Appellants argue that there is no reason for an ordinarily skilled artisan to modify gasket 204 to cover an empty vial as shown in Figure 10 of Sanadi because there is nothing in the unfilled vial to be retained by the gasket 204 (App. Br. 20). Appellants contend that there is no teaching in Sanadi to make the modifications of Sanadi's structure as proposed by the Examiner (*id.* at 21).

However, the Examiner properly finds that Appellants argue the prior art as if it is directed to a single vial and not an array of vials formed in a plate (Ans. 9). To the contrary, Sanadi, Steinel and AAPA are all directed to arrays of sample wells and Steinel and AAPA recognize problems with the vacuum when empty vials are included as part of the array as found by the Examiner (*id.* at 5-6). Appellants' arguments directed to the seemingly nonsensical modification for a single test vial fail to address the fact that the art recognizes a problem when a vacuum is applied to filter fluid from an array of filled and empty vials on the same plate. The solution to the problem as taught by Steinel and AAPA is to cover the empty vials to prevent loss of vacuum. Accordingly, we agree with the Examiner that the art as a whole would have suggested to the ordinarily skilled artisan to modify Sanadi's gasket 204 to cover the unfilled vials. Appellants' argument that Sanadi does not teach to make the Examiner's proposed modification fails to address what the combined teachings of Steinel, AAPA and Sanadi would have suggested to one of ordinary skill in the art. *In re Keller*, 642 F.2d 413, 425 (CCPA 1981).

Appellants argue that the applied prior art fails to teach the same order of steps recited in claim 1 that includes, identifying the location of empty and full reaction vials and arranging a cover unit on the filtering system such that the resiliently deforming mat engages on a top surface of the filtering system whereby air flows through the unsealed vials but does not pass through reaction vials that are sealed by the deforming mat (App. Br. 22).

The Examiner finds that no particular order is required for the steps of method claim 1 (Ans. 10). While we agree with the Examiner that no criticality has been shown in the order of the method steps, we further note that the Examiner's proposed modification of Sanadi's method starting with the vial shown in Sanadi's Figure 10 would have included the steps of first identifying the location of the empty vials, arranging the gasket 204 such that the solid portions overly the empty vials and then sealing them to prevent airflow through the sealed empty vials but permitting airflow through the vials with a sample and an aperture in gasket 204. Appellants' argument is not persuasive.

On this record and for the above reasons, we affirm the Examiner's § 103 rejection.

#### DECISION

The Examiner's decision 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.

ORDER

AFFIRMED

bar