

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opinion in support of the decision being entered today (1) was not written for publication in a law journal and (2) is not binding precedent of the Board.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. 30

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte PAUL G. WRIGHT, LOWELL R. NICKOLAUS, PAUL T. BUSBOOM,
JEROME J. KAZAKEVICIUS, JOHN D. HULL and RALPH E. SETTER

Appeal No. 1997-4046
Application No. 08/040,117

HEARD: February 22, 2000

Before ABRAMS, STAAB, and BAHR, ***Administrative Patent Judges.***

ABRAMS, ***Administrative Patent Judge.***

DECISION ON APPEAL

This is an appeal from the decision of the examiner finally rejecting claims 11-32 and 36. Claims 1-10 and 33-35 have been allowed.

The appellants' invention is directed to an apparatus for sampling liquids (claims 11-18 and 36), a sample container top

(claims 19-27), a bladder pump (claims 28 and 29), and a method of pumping (claims 30-32).

The subject matter before us on appeal is illustrated by reference to claim 11, which reads as follows:

11. An apparatus for sampling liquids, comprising:

means for causing liquid to flow through a needle into a container until the container overflows:

means for removing the needle; and

means for closing the container automatically as the needle is withdrawn.

THE REFERENCES

The references relied upon by the examiner to support the final rejection are:

Risser 1963	3,093,165	Jun. 11,
Mayeux 1963	3,105,527	Oct. 1,
Manas et al. 1971	3,589,410	Jun. 29,
Harris et al. (Harris '471) 1971	3,603,471	Sep. 7,
Harris et al. (Harris '981) 1973	3,757,981	Sep. 11,
Marsoner et al. (Marsoner) 1987	4,705,667	Nov. 10,
Niehaus et al. (Niehaus) 15, 1992	5,147,185	Sep.
Pang et al. (Pang) 1992	5,169,602	Dec. 8,

Golias et al. (Golias) 1992	5,173,265	Dec. 22,
Kuroda et al. (Kuroda) 1993	5,256,573	Oct. 26,
		(filed Jan. 21, 1992)
Peterson 1994	5,279,167	Jan. 18,
		(filed Jun. 9, 1992)

THE REJECTIONS

The examiner has set forth the following rejections under 35 U.S.C. § 102(e):

- (1) Claims 28 and 30 on the basis of Niehaus.
- (2) Claims 29, 31 and 32 on the basis of Niehaus.¹

The examiner has set forth the following rejections under 35 U.S.C. § 103:

- (1) Claims 11, 16 and 17 on the basis of Peterson and Golias.
- (2) Claim 18 on the basis of Peterson, Golias and Kuroda.
- (3) Claim 36 on the basis of Peterson, Golias and Harris '981
- (4) Claims 11, 15 and 16 on the basis of Manas and Mayeux.
- (5) Claims 12-14 on the basis of Manas, Mayeux and Risser.
- (6) Claims 19, 20 and 22-27 on the basis of Harris '981, Pang and Marsoner.

¹This was stated as an alternative to a rejection of the same claims as being unpatentable over Niehaus under 35 U.S.C. § 103.

(7) Claims 19-27 on the basis of Harris '471, Pang and Marsoner.

(8) Claims 29, 31 and 32 on the basis of Niehaus.

Rather than attempt to reiterate the examiner's full commentary with regard to the above-noted rejection and the conflicting viewpoints advanced by the examiner and the appellants regarding the rejection, we make reference to the Examiner's Answer (Paper No. 25) and the Appellants' Brief (Paper No. 24).

OPINION

The appellants' invention relates to methods and apparatus for sampling liquids in such a manner as to preserve representative samples having volatile materials in them. In the case of the sampling apparatus, the invention comprises sample containers having a single opening and an operating system that inserts a needle through the opening. Fluid is injected into the container through the needle as it is withdrawn and continues until the container overflows, whereupon a valve on the top of the container closes the opening, thus insuring that no outside contamination enters. A funnel-shaped cavity is provided in the top of the container,

above the closure valve, to receive the overflowing fluid. The sample liquid is pumped through the needle by a bladder pump.

The Rejections Under 35 U.S.C. § 102(e)

Anticipation established only when a single prior art reference discloses, either expressly or under the principles of inherency, each and every element of the claimed invention (see *In re Paulsen*, 30 F.3d 1475, 1480-1481, 31 USPQ2d 1671, 1675 (Fed. Cir. 1994)). It does not require either the inventive concept of the claimed subject matter or recognition of inherent properties that may be possessed by the reference (see *Verdegaal Brothers Inc. v. Union Oil Co. Of California*, 814 F.2d 628, 633, 2 USPQ2d 1051, 1054 (Fed. Cir. 1987)) or that the reference teaches what the applicant is claiming, but only that the claim on appeal "read on" something disclosed in the reference, *i.e.*, all limitations of the claim are found in the reference (see *Kalman v. Kimberly-Clark Corp.*, 713 F.2d 760, 772, 218 USPQ 781, 789 (Fed. Cir. 1983), *cert. denied*, 465 U.S. 1026 (1984)).

Independent claim 28 is directed to a bladder pump, and stands rejected as being anticipated by Niehaus, which

discloses a bladder pump for obtaining samples from wells. In our view, all of the structure recited in claim 28 reads upon the pump disclosed in Figure 2 of Niehaus. The only argument advanced by the appellants with regard to this rejection is that the Niehaus pump does not apply both pressure and suction to the bladder (Brief, pages 43 and 44). However, this clearly is not the case, for beginning at column 12, line 59, Niehaus describes means for alternately applying vacuum and positive pressure to the bladder in order to pump water through the device, as is required by claim 28. This same passage teaches the method of pumping set forth in claim 30. The rejection of claims 28 and 30 therefore is sustained.

Claims 29, 31 and 32 also stand rejected as being anticipated by Niehaus. Claim 29 adds to claim 28 the requirement that the pump be less than ten feet in length. While Niehaus teaches that the capacity of the pump can be varied by varying its length (column 9, lines 7-14), the dimension specified in claim 30 is not disclosed, and therefore this reference cannot be considered as being anticipatory of the subject matter of the claim. This rejection of claim 29 is not sustained.

The method of pumping recited in independent claim 31 differs from that of claim 30 essentially only in that claim 31 specifies that the pump be inserted into liquid at least 26 feet below the surface. This limitation is not taught by Niehaus, and therefore the anticipation rejection of claim 31 and dependent claim 32 cannot be sustained.

The Rejections Under 35 U.S.C. § 103

The initial burden of establishing a basis for denying patentability to a claimed invention rests upon the examiner. See *In re Piasecki*, 745 F.2d 1468, 1471-72, 223 USPQ 785, 787-88 (Fed. Cir. 1984). 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, 10 USPQ2d 1843, 1847 (Fed. Cir.), *cert. denied*, 493 U.S. 975 (1989) and *In re Keller*, 642 F.2d 413, 425, 208 USPQ 871, 881 (CCPA 1981). While there must be some suggestion or motivation for one of ordinary skill in the art to combine the teachings of references, it is not necessary that such be found within the four corners of the references

themselves; 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, 163 USPQ 545, 549 (CCPA 1969). Further, in an obviousness assessment, skill is presumed on the part of the artisan, rather than the lack thereof. *In re Sovish*, 769 F.2d 738, 742, 226 USPQ 771, 774 (Fed. Cir. 1985). Insofar as the references themselves are concerned, we are bound to consider the disclosure of each for what it fairly teaches one of ordinary skill in the art, including not only the specific teachings, but also the inferences which one of ordinary skill in the art would reasonably have been expected to draw therefrom. See *In re Boe*, 355 F.2d 961, 965, 148 USPQ 507, 510 (CCPA 1966) and *In re Preda*, 401 F.2d 825, 826, 159 USPQ 342 (CCPA 1968).

The first of the examiner's Section 103 rejections is that independent claim 11 and dependent claims 16 and 17 are unpatentable over the combined teachings of Peterson and Golias. Claim 11 is directed to an apparatus for sampling liquids which comprises, *inter alia*, "means for causing liquid

to flow through a needle into a container until the container overflows" (emphasis added). The examiner is of the view that this is taught by Peterson, a conclusion with which we do not agree. We begin our analysis by finding that it would have been clear to one of ordinary skill in the art from the appellants' specification that "overflow" be given its common meaning, which is "to flow over the brim of."² While Peterson discloses a means for causing liquid to flow through an inlet needle 50 into a container, as well as an overflow needle 51 that is connected to a return line 19, there is no explicit teaching in Peterson that filling continues until the container overflows its brim, and it does not appear to us that such inherently will be the case.

Initially, we note that the stated function of Peterson's needle 51 is to permit any gas that is in the container to flow out as the liquid is being infused, and the reference discusses the fill level of the container only in terms of obtaining an appropriate sample (column 7, line 28 *et seq.*). In addition, it is our view that the Peterson container cannot "overflow" in

²See, for example, Merriam Webster's Collegiate Dictionary, Tenth Edition, 1996, page 829.

any fashion, for two reasons. First, the container is closed by a septum 66 through which the two needles protrude, so even if the container were to be totally filled with liquid it is prevented by the septum from overflowing its brim. Second, the container cannot be totally filled by liquid in view of the fact that once the level of the liquid rises to the point where it reaches the open end of return flow needle 51, the maximum filling level has been reached, for the continuing flow of liquid into the container through needle 50 would pass out of the container through needle 51.

From our perspective, therefore, Peterson does not disclose or teach means for causing the liquid to flow into the container until it overflows. This deficiency is not cured by considering Golias, which has been cited by the examiner for its teaching of a mechanism for raising and lowering the needles to puncture the container. It is our conclusion that the combined teachings of Peterson and Golias fail to establish a *prima facie* case of obviousness with regard to the subject matter of independent claim 11 or, it follows, of claims 16 and 17, which depend therefrom. This being the case, we will not sustain this rejection.

Peterson and Golias also form the basis for the rejections of dependent claims 18 and 36, along with Kuroda and Harris '981, respectively. Neither of the latter two references alleviates the shortcoming discussed above regarding Peterson and Golias, and therefore a *prima facie* case of obviousness is lacking with regard to claims 18 and 36, and we also will not sustain the rejection of these claims.

The examiner has entered a second rejection of independent claim 11 on the basis of Manas in view of Mayeux. This rejection fails for essentially same reasons as we expressed above with regard to the other rejection, that is, the references fail to disclose or teach the required means for causing liquid to flow into the container until it overflows. Manas discloses a machine for filling a container by means of a spout 31, which is surrounded by an annular overflow tube 42. As was the case with Peterson, there is no explicit teaching of filling the container to such an extent that liquid flows over the brim, nor does it appear that this could inherently be the case. As shown in Manas' Figure 3, liquid would flow out of the container through the overflow spout before the container could overflow its brim, and the height to which liquid could

fill the container is short of the mouth of the container. Mayeux, cited for its teaching of using a rotary valve to control flow to a collection container, fails to supply the teaching missing from Manas. It is our view that the combined teachings of Manas and Mayeux fail to establish a *prima facie* case of obviousness with regard to the subject matter recited in claim 11. We therefore will not sustain this rejection of independent claim 11 or of dependent claims 15 and 16.

The addition of Risser in the rejection of dependent claims 12-14 fails to overcome the deficiency in the combination of Manas and Mayeux that is pointed out above. This being the case, the rejection of claims 12-14 is not sustained.

Claims 19, 20 and 22-27 stand rejected as being unpatentable over Harris '981 in view of Pang and Marsoner.³ Independent claim 19 is directed to a sample container top having an upper portion in which there is a valve member and a

³It would appear from the manner in which the examiner has presented this rejection that it should be Harris '981 in view of Pang or Marsoner, rather than Pang and Marsoner, as it is stated. The appellants' arguments are applicable in either case, as is our conclusion.

funnel-shaped cavity. Harris '981 discloses all of the subject matter recited in claim 19 except for the funnel-shaped cavity. Each of the secondary references discloses a funnel-shaped cavity whose purpose is to guide a needle into place for dispensing liquid into the mouth of another element (Pang, Abstract and column 3, lines 36-46; Marsoner, column 2, line 38 *et seq.*). We agree with the examiner that it would have been obvious to one of ordinary skill in the art to provide a funnel-shaped cavity above the valve in the filling system of Harris '981, suggestion being found in the explicit teachings of each of the two secondary references that such would offer the advantage of guiding the needle into alignment with the element to which the liquid is to be communicated. While this is not for the same purpose as the funnel-shaped cavity in the appellants' invention, the prior art teachings relied upon need not disclose the same advantage that the appellants allege, for all that is required is that there is a reasonable suggestion to combine the references. See *In re Kronig*, 539 F.2d 1300, 1304, 190 USPQ 425, 427-428 (CCPA 1976); and *Ex parte Obiaya*,

227 USPQ 58, 60 (Bd. Pat. App. & Int. 1985), *aff'd. mem.*, 759 F.2d 1017 (Fed. Cir. 1986).

A *prima facie* case of obviousness has been established by the applied prior art, and we will sustain this rejection.

The valve member added by claim 20 clearly is disclosed in Harris '981 (movable valve element 33), as is the container top of claim 22 (elements 27 and 36). As for the dimensions set forth in claims 23-27, we agree with the examiner that they would have been obvious matters of design choice to the artisan, who is presumed to possess skill (*In re Sovish, supra*). Further in this regard, we point out that the appellants have not directed us to evidence of record which would establish that the claimed dimensions are critical. This rejection of claims 20 and 22-27 is sustained.

The examiner also takes the position that the subject matter of independent claim 19, and dependent claims 20-27, is unpatentable over the combined teachings of Harris '471, Pang and Marsoner.⁴ As was the case with the other Harris reference, we find in Harris '471 all of the subject matter

⁴See footnote 3.

recited in claim 19, except for the funnel-shaped cavity above the valve member. We have discussed in the other rejection of claim 19 the applicable teachings of Pang and Marsoner. For the reasons expressed there, we reach the same conclusion with regard to this second rejection, that is, the applied prior art establishes a *prima facie* case of obviousness with regard to the subject matter of these claims, and we therefore will sustain this rejection of claims 19-27.

In addition to having been rejected as being anticipated by Niehaus, claims 29, 31 and 32 have alternatively been rejected as being unpatentable over Niehaus. Claim 29 depends from claim 28, and we determined above when dealing with the Section 102 rejection of claim 28 that it was anticipated by Niehaus. Claim 29 adds the requirement that the length of the pump be less than 10 feet. While Niehaus does not disclose that the pump should be of any particular length, it does teach that the capacity of the pump can be changed by changing the length of the bladder (column 9, lines 7-14). The appellants have not argued that the claimed dimension is critical, much less provided evidence thereof, and thus we are of the view that one of ordinary skill would have found it obvious to make

the Niehaus pump of whatever length is necessary to produce the desired results, including making it less than 10 feet in length, in the light of the suggestion provided in the reference. A *prima facie* case of obviousness having been established, the Section 103 rejection of claim 29 on the basis of Niehaus is sustained.

The same reasoning applies to the requirement in independent claim 31 that the pump be inserted into liquid at least 26 feet below the surface, and which was added to claim 30 by dependent claim 32 in terms of pumping the liquid vertically at least 26 feet. The appellants merely have argued that the numerical limitation exists in the claim, but have not urged that it has any critical bearing upon the invention. Niehaus states that the inventive pump is for pumping samples from wells, which one of ordinary skill in the art can be expected to know commonly run to depths greater than 26 feet. It therefore is our conclusion that the subject matter recited in claim 31 and 32 would have been obvious to one of ordinary skill in the art, that is, a *prima facie* case of obviousness has been established with regard to the subject matter recited

in these claims. The Section 103 rejection of claims 31 and 23 is sustained.

We have carefully considered all of the appellants' arguments, however, they have not persuaded us that the examiner was in error with regard to those rejections which we have sustained. Our position with regard to the various arguments should be apparent from the explanations provided above.

SUMMARY

The rejection of claims 28 and 30 as being anticipated by Niehaus is sustained.

The rejection of claims 29, 31 and 32 as being anticipated by Niehaus is not sustained.

The rejection of claims 11, 16 and 17 as being unpatentable over Peterson and Golias is not sustained.

The rejection of claim 18 as being unpatentable over Peterson, Golias and Kuroda is not sustained.

The rejection of claim 36 as being unpatentable over Peterson, Golias and Harris '981 is not sustained.

Appeal No. 1997-4046
Application No. 08/040,117

Page 18

The rejection of claims 11, 15 and 16 as being unpatentable

over Manas and Mayeux is not sustained.

The rejection of claims 12-14 as being unpatentable over Manas, Mayeux and Risser is not sustained.

The rejection of claims 19, 20 and 22-27 as being unpatentable over Harris '981, Pang and Marsoner is sustained.

The rejection of claims 19-27 as being unpatentable over Harris '471, Pang and Marsoner is sustained.

The rejection of claims 29, 31 and 32 as being unpatentable over Niehaus is sustained.

The decision of the examiner is affirmed-in-part.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 CFR § 1.136(a).

AFFIRMED-IN-PART

NEAL E. ABRAMS)	
Administrative Patent Judge)	
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)	BOARD OF PATENT
LAWRENCE J. STAAB)	APPEALS
Administrative Patent Judge)	AND
)	INTERFERENCES
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)	
JENNIFER D. BAHR)	
Administrative Patent Judge)	

NEA/jlb

Appeal No. 1997-4046
Application No. 08/040,117

Page 21

VINCENT L. CARNEY
P.O. BOX 80836
LINCOLN, NE 68501-0836