

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opinion in support of the decision being entered today (1) was not written for publication in a law journal and (2) is not binding precedent of the Board.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. 17

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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Ex parte PAUL A. DICKIE, KURTIS D. KLEIS and MICHAEL A. MIKE

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Appeal No. 97-0990  
Application No. 08/105,093<sup>1</sup>

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ON BRIEF

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Before MEISTER, McQUADE, and NASE, Administrative Patent Judges.  
NASE, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on appeal from the examiner's final rejection of claims 1 through 7, which are all of the claims pending in this application.<sup>2</sup>

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<sup>1</sup> Application for patent filed August 10, 1993.

<sup>2</sup> Claim 5 has been amended subsequent to the final rejection.

Appeal No. 97-0990  
Application No. 08/105,093

We REVERSE.

BACKGROUND

The appellants' invention relates to a reverse pressure tolerant seal. An understanding of the invention can be derived from a reading of exemplary claim 1, which appears in the appendix to the appellants' brief.

The prior art references of record relied upon by the examiner as evidence of obviousness under 35 U.S.C. § 103 are:

Meyer	3,003,796	Oct. 10, 1961
Andresen et al. (Andresen)	3,026,114	Mar. 20, 1962
Voitik	3,416,808	Dec. 17, 1968
Lojkutz et al. (Lojkutz)	3,647,227	Mar. 7, 1972
Pottharst, Jr. (Pottharst)	3,652,183	Mar. 28, 1972
Nicholson	4,585,239	Apr. 29, 1986
Smetana	4,739,997	Apr. 26, 1988

Claims 1 and 2 stand rejected under 35 U.S.C. § 103 as being unpatentable over Voitik in view of Smetana.

Claim 3 stands rejected under 35 U.S.C. § 103 as being unpatentable over Voitik in view of Smetana as applied to claim 2 above, and further in view of Pottharst.

Claim 4 stands rejected under 35 U.S.C. § 103 as being unpatentable over Voitik in view of Smetana as applied to claim 1 above, and further in view of Meyer.

Claim 5 stands rejected under 35 U.S.C. § 103 as being unpatentable over Voitik in view of Smetana and Meyer as applied to claim 4 above, and further in view of Nicholson.

Claim 6 stands rejected under 35 U.S.C. § 103 as being unpatentable over Voitik in view of Smetana, Meyer, Pottharst and Andresen.

Claim 7 stands rejected under 35 U.S.C. § 103 as being unpatentable over Voitik in view of Smetana, Meyer, Pottharst, Andresen and Lojkutz.

Rather than reiterate the conflicting viewpoints advanced by the examiner and the appellants regarding the § 103 rejections, we make reference to the final rejection (Paper No. 9, mailed September 15, 1995) and the examiner's answer (Paper No. 16, mailed September 19, 1996) for the examiner's complete reasoning in support of the rejections, and to the appellants' brief (Paper

No. 15, filed August 27, 1996) for the appellants' arguments thereagainst.

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. Upon evaluation of all the evidence before us, it is our conclusion that the evidence adduced by the examiner is insufficient to establish a prima facie case of obviousness with respect to the appealed claims. Accordingly, we will not sustain the examiner's rejection of claims 1 through 7 under 35 U.S.C. § 103. Our reasoning for this determination follows.

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 rejecting claims under 35 U.S.C. § 103, the examiner bears the initial burden of presenting a prima facie case of obviousness. See In re Rijckaert, 9 F.3d

1531, 1532, 28 USPQ2d 1955, 1956 (Fed. Cir. 1993). A prima facie case of obviousness is established by presenting evidence that the reference teachings would appear to be sufficient for one of ordinary skill in the relevant art having the references before him to make the proposed combination or other modification. See In re Lintner, 9 F.2d 1013, 1016, 173 USPQ 560, 562 (CCPA 1972). Furthermore, the conclusion that the claimed subject matter is prima facie obvious must be supported by evidence, as shown by some objective teaching in the prior art or by knowledge generally available to one of ordinary skill in the art that would have led that individual to combine the relevant teachings of the references to arrive at the claimed invention. See In re Fine, 837 F.2d 1071, 1074, 5 USPQ2d 1596, 1598 (Fed. Cir. 1988). Rejections based on § 103 must rest on a factual basis with these facts being interpreted without hindsight reconstruction of the invention from the prior art. The examiner may not, because of doubt that the invention is patentable, resort to speculation, unfounded assumption or hindsight reconstruction to supply deficiencies in the factual basis for the rejection. See In re Warner, 379 F.2d 1011, 1017, 154 USPQ 173, 177 (CCPA 1967), cert. denied, 389 U.S. 1057 (1968). Our reviewing court has repeatedly cautioned against employing hindsight by using the appellant's

disclosure as a blueprint to reconstruct the claimed invention from the isolated teachings of the prior art. See, e.g., Grain Processing Corp. v. American Maize-Products Co., 840 F.2d 902, 907, 5 USPQ2d 1788, 1792 (Fed. Cir. 1988).

With this as background, we turn to the examiner's rejections of the claims on appeal.

#### **Claims 1 through 5**

Claim 1 recites a seal having an axis A which bounds a sealing plenum between a first region and a second region, the seal including a first sealing surface and a second sealing surface which extend circumferentially about the axis A and which are spaced radially to form the plenum. The seal comprises, inter alia, (1) a first seal element which has a C-shaped cross section, the seal element having a front which is closed and which faces the first region, a first sidewall extending from the front to the first sealing surface and a second sidewall extending from the front to the second sealing surface, (2) a second seal element means disposed on the interior of the first seal element for urging the sidewalls apart leaving an opening therebetween and for urging the sidewalls apart into engagement

with the sealing surfaces such that the first wall exerts a first sealing force against the first sealing surface and the second wall exerts a second sealing force against the second sealing surface, and (3) a third seal element extending circumferentially about the axis A and having a surface extending radially to engage the front of the first seal element. The seal is adapted by the second seal element means to block the leakage of fluid from the first region by urging the sidewalls against the sealing surfaces. The seal is also adapted by the opening between the two sidewalls to allow pressurized fluid from the second region to exert a sealing force against the sidewalls to augment the sealing force from the second seal element means under operative conditions at which the pressure of the second region substantially exceeds the pressure of the first region and the third seal element positions the first seal element in the axial direction to resist the pressure force from the second region.

The examiner determined (final rejection, pp.4-5) that

[i]t would have been obvious to one of ordinary skill in the art to substitute the seal assembly of Smetana for the o-ring seal of Voitik in order to provide a seal with the ability to respond to fluid pressure in order to provide a better seal.

The appellants argue (brief, pp. 3-7) that the above-noted combination of Voitik and Smetana does not meet the requirements of appealed claim 1. Specifically, the appellants argue that the specifically claimed orientation of the first seal element and the second seal element means is not suggested or taught by the applied prior art. We agree.

It is our opinion that while the combined teachings of Voitik and Smetana would have suggested substituting the seal assembly (i.e., seal 18 as shown in Figure 4) of Smetana for the o-ring seal 22 of Voitik, there is no teaching or suggestion, absent impermissible hindsight, to arrange the seal assembly of Smetana such that the base portion 28, rather than the legs 24 and 26, thereof is adjacent retainer 34 of Voitik. It is our view that since Voitik is concerned with restricting fluid leakage in the direction of the arrow 11 one skilled in the art would have arranged the seal assembly of Smetana such that the legs 24 and 26, not the base portion 28, thereof was adjacent retainer 34 of Voitik so that the pressure within Voitik's opening 12 would act to bias the legs 24 and 26 of Smetana's seal assembly away from one another as taught by Smetana.

In summary, we see no motivation in the applied prior art of why one skilled in the art would have modified the device of Voitik to make the modifications necessary to arrive at the claimed invention. Thus, the examiner has failed to meet the initial burden of presenting a prima facie case of obviousness.<sup>3</sup> Thus, we cannot sustain the examiner's rejection of appealed independent claim 1, or claims 2 through 5 which depend therefrom, under 35 U.S.C. § 103.<sup>4</sup>

#### **Claims 6 and 7**

Claims 6 and 7 recite a seal assembly comprising, inter alia, a seal housing, a carbon seal ring, means for urging the seal ring, and a seal substantially as recited in claim 1.

We have reviewed all the references applied in the rejection of claims 6 and 7 but find nothing therein which would have suggested arranging the seal assembly of Smetana such that the

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<sup>3</sup> Note In re Rijckaert, supra; In re Lintner, supra; and In re Fine, supra.

<sup>4</sup> We have also reviewed the additional references applied in the rejection of claims 3 through 5 but find nothing therein which makes up for the deficiency of Voitik and Smetana discussed above.

base portion 28 thereof is adjacent retainer 34 of Voitik for the reasons set forth above with respect to claim 1. Accordingly, we cannot sustain the examiner's rejection of appealed claims 6 and 7 under 35 U.S.C. § 103.

CONCLUSION

To summarize, the decision of the examiner to reject claims 1 through 7 under 35 U.S.C. § 103 is reversed.

REVERSED

JAMES M. MEISTER	)	
Administrative Patent Judge	)	
	)	
	)	
	)	
	)	BOARD OF PATENT
JOHN P. McQUADE	)	APPEALS
Administrative Patent Judge	)	AND
	)	INTERFERENCES
	)	
	)	
	)	
JEFFREY V. NASE	)	
Administrative Patent Judge	)	

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APPLICATION NO. 08/105,093

APJ NASE

APJ McQUADE

APJ MEISTER

DECISION: **REVERSED**

Prepared By: Delores A. Lowe

**DRAFT TYPED:** 07 Apr 98

**FINAL TYPED:**