

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opinion in support of the decision being entered today (1) was not written for publication in a law journal and (2) is not binding precedent of the Board.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. 35

UNITED STATES PATENT AND TRADEMARK OFFICE

---

BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

---

***Ex parte*** EDWARD R. MOYNIHAN, DAVID W. GAILUS, ROBERT G. PALIFKA,  
PAUL A. HOISINGTON, NATHAN P. HINE, DAVID ADAMS-BRADY,  
MELVIN L. BIGGS, MARLENE M. MCDONALD, STEVEN H. BARSS,  
DIANE MACKAY, BRUCE A. PAULSON, and STEPHEN C. MACKAY

---

Appeal No. 1999-1853  
Application No. 08/406,297

---

HEARD: May 2, 2000

---

Before BARRETT, FLEMING, and DIXON, **Administrative Patent Judges**.  
DIXON, **Administrative Patent Judge**.

**DECISION ON APPEAL**

This is a decision on appeal from the examiner's final rejection of claims 1-10, 22-24 and 67-71, which are all of the claims pending in this application.

We REVERSE.

## BACKGROUND

The appellants' invention relates to a simplified ink jet head. One aspect of the print head is that it contains of a continuous body of carbon attached to the piezoelectric transducer wherein the coefficient of thermal expansion is uniform and comparable to that of the transducer. In another aspect of the print head, the manifold plate contains an array of ink passages in the surface of the manifold plate which communicate the ink to the orifices of the orifice plate. An understanding of the invention can be derived from a reading of exemplary claims 1 and 67, which are reproduced below.

1. An ink jet head comprising at least one member made of a continuous body of carbon and having at least one ink passage and a piezoelectric plate affixed to a surface of the carbon member.

67. An ink jet head comprising an orifice plate having an array of ink jet orifices, a manifold plate having a surface affixed to a surface of the orifice plate and having spaced arrays of ink passages extending through the manifold plate and arrays of passages in the surface of the manifold plate affixed to the surface of the orifice plate which communicate with the orifices in the orifice plate.

The prior art references of record relied upon by the examiner in rejecting the appealed claims are:

Hubbard et al. (Hubbard)	4,605,939	Aug. 12, 1986
Cruz-Uribe	4,695,854	Sep. 22, 1987
Mielke	4,737,802	Apr. 12, 1988
Baker et al. (Baker)	4,771,295	Sep. 13, 1988
Parks et al. (Parks)	4,924,241	May. 08, 1990

Appeal No. 1999-1853  
Application No. 08/406,297

Masayshi et al. (Masayshi)<sup>1</sup>

Jp-59-146860

Aug. 22, 1984

Claims 1-10 and 24 stand rejected under 35 U.S.C. § 103 as being unpatentable over Parks in view of Mielke. Claims 22 and 23 stand rejected under 35 U.S.C. § 103 as being unpatentable over Parks and Mielke in view of Baker. Claims 1-10 and 24 stand rejected under 35 U.S.C. § 103 as being unpatentable over Masayshi in view of Mielke. Claims 22 and 23 stand rejected under 35 U.S.C. § 103 as being unpatentable over Masayshi and Mielke in view of Baker. Claims 67-71 stand rejected under 35 U.S.C. § 103 as being unpatentable over Cruz-Uribe in view of Hubbard.

Rather than reiterate the conflicting viewpoints advanced by the examiner and the appellants regarding the above-noted rejections, we make reference to the examiner's answer (Paper No. 28, mailed Jan. 6, 1999) for the examiner's reasoning in support of the rejections, and to the appellants' brief (Paper No. 27, filed Oct. 16, 1998) 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. As a consequence of our review, we make the determinations which follow.

---

<sup>1</sup> A copy of a USPTO translation was provided to appellants' representative at the hearing.

As pointed out by our reviewing court, we must first determine the scope of the claim. "[T]he name of the game is the claim." **In re Hiniker Co.**, 150 F.3d 1362,1369, 47 USPQ2d 1523, 1529 (Fed. Cir. 1998). As pointed out by our reviewing court, claim language should be read with the "broadest reasonable meaning of the words in their ordinary usage as they would be understood by one of ordinary skill in the art, taking into account whatever enlightenment by way of definitions or otherwise that may be afforded by the written description contained in the applicant's specification."

**In re Morris**, 127 F.3d 1048, 1054-55, 44 USPQ2d 1023, 1027 (Fed. Cir 1997). From a review of appellants' specification, the language of claims 1 and 67 is clear. Claim 1 sets forth an ink jet head having member made of a "continuous body of carbon." The examiner relies upon Parks to teach "an array of orifices (01-07), made of a graphite-containing composition, i.e. carbon, having an array of ink passages C1-C7."

(See answer at page 3.) Parks states (at column 3 lines 48-51): "The plates may be made of any material capable of being accurately machined, and are preferably made of a graphite-containing composition." Appellants argue that Parks does not teach a "continuous body of carbon" as claimed. (See brief at page 24.) We agree with appellants that Parks does not teach or suggest that any plate be made of a "continuous body of carbon," as recited in the language of claim 1. Parks disclose a "composition" which would not be a continuous body of solely carbon.

The examiner further relies upon Mielke to teach a carbon member connected to a piezoelectric plate. (See answer at page 3.) Appellants argue that Mielke does not teach or suggest the continuous body of carbon or the affixation of a piezoelectric plate thereto. (See brief at pages 24-25.) We agree with appellants. We disagree with the examiner that the teaching of a carbon containing material is the same as the claimed continuous body of carbon. Since the examiner has not shown a teaching or suggestion of using a continuous body of carbon, the examiner has not set forth a ***prima facie*** case of obviousness and we will not sustain the rejection of claim 1 and dependent claims 2-10 and 24. The examiner has not identified any teaching in Baker to remedy the deficiency in the combination of Parks and Mielke, therefore, we will not sustain the rejection of claims 22 and 23. Additionally, the teaching of Baker does not teach or suggest the use of a tubular member as recited in the language of claim 22 and the examiner has not addressed this limitation in the rejection.

With respect to Masayshi, the examiner states that “member 11 [is] made of a continuous body of carbon.” (See answer at page 4.) We disagree with the examiner. As stated above, carbon in a composition does not teach or fairly suggest the use of a “continuous body of carbon,” as recited in the language of claim 1. Therefore, we will not sustain the rejection of claims 1-10 and 22-24 using Masayshi in place of Parks.

With respect to claim 67, the examiner relies upon Cruz-Uribe to teach the various plates affixed to each other. The examiner relies upon the ink passages 76

Appeal No. 1999-1853  
Application No. 08/406,297

which extend through the intermediate/manifold plate 64 and affixed to the orifice 66 plate. The examiner relies on Hubbard to teach the affixation of the plates with screws. The examiner does not address the claim limitation that there are “arrays of passages in the surface of the manifold plate affixed to the surface of the orifice plate which communicate with the orifices in the orifice plate.” (See answer at page 5.) Appellants argue the express language of claim 67 with respect to the two arrays of ink passages and that Cruz-Urbe does not teach or suggest the ink passages in the surface of the manifold plate with the orifice plate affixed thereto. The examiner’s response to the above argument misses the point that there are two separate arrays of passages, one through the manifold which is taught by Cruz-Urbe and one only in or along the surface (not through) of the manifold plate. The second is not taught or fairly suggested by Cruz-Urbe or Hubbard. Again, the examiner has not set forth a *prima facie* case and the examiner has not addressed the express language of the claim in the rejection. Therefore, we will not sustain the rejection of claims 67-71.

## CONCLUSION

Appeal No. 1999-1853  
Application No. 08/406,297

To summarize, the decision of the examiner to reject claims 1-10, 22-24 and 67-71 under 35 U.S.C. § 103 is reversed.

REVERSED

LEE E. BARRETT	)	
Administrative Patent Judge	)	
	)	
	)	
	)	
	)	BOARD OF PATENT
MICHAEL R. FLEMING	)	APPEALS
Administrative Patent Judge	)	AND
	)	INTERFERENCES
	)	
	)	
	)	
JOSEPH L. DIXON	)	
Administrative Patent Judge	)	

Appeal No. 1999-1853  
Application No. 08/406,297

BRUMBAUGH GRAVES DONOHUE & RAYMOND  
30 ROCKEFELLER PLAZA  
NEW YORK, NY 10112