

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opinion in support of the decision being entered today (1) was not written for publication in a law journal and (2) is not binding precedent of the Board.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. 32

UNITED STATES PATENT AND TRADEMARK OFFICE

---

BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

---

Ex parte NAGASHIGE TAKAHASHI and HIROMICHI SHIBUYA

---

Appeal No. 98-1030  
Application 08/424,115<sup>1</sup>

---

ON BRIEF

---

Before FRANKFORT, STAAB and McQUADE, Administrative Patent Judges.

McQUADE, Administrative Patent Judge.

DECISION ON APPEAL

Nagashige Takahashi et al. appeal from the final

---

<sup>1</sup> Application for patent filed April 19, 1995. According to the appellants, the application is a continuation of Application 07/893,044, filed June 3, 1992, now abandoned. Application 07/893,044 was the subject of an earlier appeal to this Board (Appeal No. 95-0905). In the earlier appeal, the panel deciding the instant appeal rendered a decision sustaining the examiner's rejections (see Paper No. 13).

Appeal No. 98-1030  
Application 08/424,115

rejection of claims 1 through 8, all of the claims pending in the application. We reverse.

The invention relates to an endoscope having a distal end part including side by side viewing and illumination windows, a window glass attached to and covering the viewing window, and a continuous transparent cover overlying both windows. According to the appellants' specification, the visual images produced by prior art endoscopes of this type are marred by the inclusion of the virtual image of the outer edge portion of the window glass. In the appellants' device, this problem is overcome by designing the window glass such that the virtual image of its outer edge portion lies outside the visual field of the endoscope's optical system.

Claim 1 is illustrative of the subject matter on appeal and reads as follows:

1. A distal end part of an endoscope, comprising:
  - a viewing window for introducing light from an object into an objective optical system having a visual field for forming an observed image;
  - an illumination window disposed in a side by side relationship with said viewing window for illuminating said visual field of said objective optical system;

Appeal No. 98-1030  
Application 08/424,115

a continuous transparent cover for covering surfaces of both said illumination and viewing windows; and

a window glass that is attached to and covers said viewing window, said window glass having a flat front surface and a flat rear surface, said window glass having a diameter large enough so that a virtual image of an outer edge portion of said window glass, which is produced by single reflection from an inner side of an outer surface of said transparent cover, lies outside the visual field of said objective optical system, said illumination window being uncovered by said window glass.

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

1983	Ogiu	4,419,987	Dec. 13,
	Ohkuwa	4,747,661	May 31, 1988
	Klein	4,809,678	Mar. 7, 1989
	Miyanaga et al.(Miyanaga)	5,150,702	Sep. 29, 1992
1991)			(filed Mar. 29,
1993	Takahashi	5,257,617	Nov. 2,
			(filed Dec. 20,
1990)			
1994	Danna et al.(Danna)	5,278,642	Jan. 11,
1992) <sup>2</sup>			(filed Feb. 26,

The appealed claims stand rejected under 35 U.S.C. § 103

---

<sup>2</sup> Considering the 35 U.S.C. § 119 benefit claimed by the appellants in this application, the Danna patent would not appear to be prior art with respect to the subject matter recited in the appealed claims. Given our decision in this appeal, however, this issue is of no practical moment.

Appeal No. 98-1030  
Application 08/424,115

as follows:

a) claims 1 through 5 as being unpatentable over Ohkuwa in view of Ogiu and Klein;

b) claim 6 as being unpatentable over Ohkuwa in view of Ogiu, Klein and Takahashi; and

c) claims 7 and 8 as being unpatentable over Ohkuwa in view of Ogiu, Klein, Danna and Miyanaga.

Reference is made to the appellants' brief (Paper No. 29) and to the examiner's final rejection and answer (Paper Nos.

23

and 31) for the respective positions of the appellants and the examiner with regard to the merits of these rejections.

In general, the reference combinations proposed by the examiner to justify of the appealed rejections are well founded. The fair teachings and suggestions of these references (as well as the prior art admissions made in the appellants' disclosure) support the proposed combinations, and belie the various hindsight arguments advanced by the

Appeal No. 98-1030  
Application 08/424,115

appellants.

Be this as it may, the examiner's reference evidence falls short with respect to the limitation in independent claim 1 requiring the window glass to have "a diameter large enough so that a virtual image of an outer edge portion of said window glass, which is produced by a single reflection from an inner side of an outer surface of said transparent cover, lies outside the visual field of said objective optical system."

According to the examiner, "the window glass 44 of Ohkuwa has a diameter that is large enough so as to prevent a virtual image from lying [inside] the visual field of the objective optical system" (final rejection, page 5). In the same vein, the examiner states that

Figure 5 of OHKUWA shows that the window glass 44 has a diameter that is large enough so that a virtual image of an outer edge portion of the window glass 44 (as produced by a reflection from an inner side of an outer surface of the sheath of KLEIN as applied to the endoscope of OHKUWA) lies outside the visual field of the optical system of the endoscope [answer, page 4].

In the earlier appeal involving parent Application 07/893,044, the appellants did not challenge essentially identical findings by the examiner. In the present appeal,

Appeal No. 98-1030  
Application 08/424,115

however, the appellants have challenged such findings, and have submitted various materials to support their position (see pages 7 through 10 in the brief). Although the materials submitted by the appellants are not all that persuasive for the reasons expressed by the examiner (see pages 7 through 9 in the answer), the appellants' argument that the applied references are deficient with respect to the claim limitation at issue is well taken.

Rejections based on 35 U.S.C. § 103 must rest on a factual basis. In re Warner, 379 F.2d 1011, 1017, 154 USPQ 173, 178 (CCPA 1967). In making such a rejection, an examiner has the initial duty of supplying the requisite factual basis and may not, because of doubts that the invention is patentable, resort to speculation, unfounded assumptions or hindsight reconstruction to supply deficiencies in the factual basis. Id. In the present case, it is not disputed that the applied references, and particularly Ohkuwa, fail to contemplate the virtual image

Appeal No. 98-1030  
Application 08/424,115

problem addressed by the appellants' invention, much less its solution. The examiner's determination that Ohkuwa's window glass 44 has a diameter large enough so that, when used in conjunction with Klein's transparent cover, a virtual image of an outer edge portion of the window glass would lie outside the visual field of Ohkuwa's objective optical system 14 rests on unfounded speculation and assumption and finds no factual support in Ohkuwa or any of the other applied references. Given the lack of any meaningful disclosure by Ohkuwa of the visual characteristics of the objective optical system, the mere fact that the window glass has a relatively large diameter as compared to the lenses of the objective optical system does not provide a sufficient basis for the examiner's conclusion.

We are therefore constrained to conclude that the reference evidence advanced by the examiner fails to establish that the differences between the subject matter recited in claim 1 and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person

Appeal No. 98-1030  
Application 08/424,115

having ordinary skill in the art. Accordingly, we shall not sustain the standing 35 U.S.C. § 103 rejection of claim 1 or of claims 2 through 8 which depend therefrom.

The decision of the examiner is reversed.

REVERSED

	)	
CHARLES E. FRANKFORT	)	
Administrative Patent Judge	)	
	)	
	)	
	)	BOARD OF PATENT
LAWRENCE J. STAAB	)	
Administrative Patent Judge	)	APPEALS AND
	)	
	)	INTERFERENCES
	)	
JOHN P. McQUADE	)	
Administrative Patent Judge	)	

Appeal No. 98-1030  
Application 08/424,115

JPM/pgg  
Greenblum & Bernstein, P.L.C.  
1941 Roland Clarke Place  
Reston, VA 20191