

The opinion in support of the decision being entered today was not written for publication and is not binding precedent of the Board.

Paper No. 18

UNITED STATES PATENT AND TRADEMARK OFFICE

**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Ex parte KOICHI TAMURA

Appeal No. 2004-0612
Application No. 09/531,660

ON BRIEF

Before PAK, OWENS and WALTZ, *Administrative Patent Judges*.
OWENS, *Administrative Patent Judge*.

DECISION ON APPEAL

This appeal is from the final rejection of claims 1-9. Claim 10, which is the only other claim in the application, stands allowable.

THE INVENTION

The appellant claims an X-ray analysis apparatus. Claims 1 and 5 are illustrative:

1. A fluorescent X-ray analysis apparatus comprising:
an X-ray source for generating a primary X-ray;

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a sample table for fixing a sample to be radiated by the primary X-ray;

a detector for detecting a secondary X-ray produced by the sample in response to irradiation by the primary X-ray; and

a collimator mechanism removably insertable in an X-ray path between the sample and the detector for passing a secondary X-ray component having a uniform extraction angle and reducing a secondary X-ray component having a non-uniform extraction angle, the extraction angle being defined between a first line connecting an intersection of a center line of an X-ray optical flux radiated by the X-ray source with a plane of the sample table and a second line connecting a center point of a detection region of the detector with a plane of the sample table.

5. An X-ray analysis apparatus for analyzing a sample, comprising: an X-ray source for radiating a primary X-ray onto the sample; an X-ray detector for detecting a secondary X-ray emanating from the sample in response to irradiation of the primary X-ray onto the sample to produce an energy spectrum; and a collimator interposed in a path of the secondary X-ray between the sample and the X-ray detector for allowing a collimate component of the secondary X-ray to pass therethrough.

THE REFERENCES

Kuwabara et al. (Kuwabara)	5,408,512	Apr. 18, 1995
Kumakhov	5,744,813	Apr. 28, 1998
Cash, Jr.	6,049,588	Apr. 11, 2000

(filed Jul. 10, 1998)

THE REJECTIONS

Claims 1 and 5-7 stand rejected under 35 U.S.C. § 102(b) as anticipated by Kuwabara. Claims 2-4, 8 and 9 stand rejected as obvious under 35 U.S.C. § 103 as follows: claims 2 and 8 over Kuwabara, claims 3 and 9 over Kuwabara in view of Kumakhov, and claim 4 over Kuwabara in view of Cash.

OPINION

We reverse the rejections of claims 1-4 and affirm the rejections of claims 5-9.

Claims 1-4

Claim 1, from which claims 2-4 depend, requires a collimator mechanism which is removably insertable in an X-ray path between a sample and a secondary X-ray detector.¹ For this claim feature the examiner relies upon Kuwabara's view restricting screen 3 (answer, page 3). This screen is a flat plate comprising a plurality of holes preferably having a hollow tubular member around each of them (figure 3), is positioned between a specimen (2) and a collimator (4) having Soller slits (figure 1), and is linearly movable in a direction perpendicular to the optical axis of the collimator's Soller slits to limit the collimator's field of view of the sample to that allowed by the selected hole position and size (col. 2, lines 37-58; col. 3, lines 61-66; col. 4, lines 2-6 and 24-37; col. 5, lines 1-6; col. 6, lines 24-37).

The examiner argues that Kuwabara's "view restricting screen provides the function of shutting off unwanted and scattered fluorescent X-rays (column 6 line 29+), therefore it performs the

¹ The appellant uses the terms "collimator mechanism" and "collimator" interchangeably (specification, page 2).

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same function of [a] collimator which [is] reducing or eliminating non-uniform extraction angled beam" (answer, page 7). The unwanted and scattered X-rays referred to by the examiner are secondary X-rays which emanate from the specimen container (8) which holds the specimen (2) (figure 1) (col. 6, lines 29-31). The examiner has not provided evidence or reasoning which shows that blocking unwanted and scattered fluorescent X-rays emanating from a specimen container is the same as reducing a non-uniform extraction angle of secondary X-rays emanating from the specimen.

The appellants do not define "collimator" in their specification. Hence, we give this term its ordinary and customary meaning, see *Allen Engineering Corp. v. Bartell Industries Inc.*, 299 F.3d 1336, 1344, 63 USPQ2d 1769, 1772 (Fed. Cir. 2002), which is "[a] device capable of collimating radiation, as a long narrow tube in which strongly absorbing or reflecting walls permit only radiation traveling parallel to the tube axis to traverse the entire length."²

The examiner has not provided evidence or reasoning which shows that Kuwabara's view restricting screen, which blocks unwanted and scattered secondary X-rays from the specimen

² *Webster's II New Riverside University Dictionary* 281 (Riverside 1984). A copy of this definition is provided to the appellant with this decision.

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container, is capable of functioning as a collimator, i.e., permitting only radiation traveling parallel to the axes of its tubes to traverse the entire length of the tubes. Nor has the examiner established that Kuwabara would have fairly suggested modifying the view restricting screen such that it can do so.

Thus, the examiner has not established a *prima facie* case of anticipation of the apparatus claimed in the appellant's claim 1 or obviousness of the apparatus claimed in the appellant's claims 2-4.³ Accordingly, we reverse the rejections of these claims.

Claims 5-9

The appellant argues that claims 5-9 stand or fall separately (brief, page 6). The appellant, however, does not provide a substantive argument as to the separate patentability of claims 6-9 which depend from independent claim 5, even though an additional reference is applied in the rejection of claim 9.⁴ Claims 5-9, therefore, stand or fall together. See *In re*

³ The examiner does not rely upon Cash, Jr. or Kumakhov for any disclosure which remedies the above-discussed deficiency in Kuwabara.

⁴ Instead, the appellant merely sets forth what each claim recites and asserts that what is recited is not disclosed or suggested by the references. This is tantamount to merely pointing out differences in what claims cover, which is not an argument as to why the claims are separately patentable. See 37 CFR § 1.192(c)(7)(1997).

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Burckel, 592 F.2d 1175, 1178-79, 201 USPQ 67, 70 (CCPA 1979); *In re Herbert*, 461 F.2d 1390, 1391, 174 USPQ 259, 260 (CCPA 1972).

Hence, we limit our discussion to the independent claim.

Kuwabara discloses an X-ray apparatus for analyzing a sample (2) (col. 1, lines 7-10), comprising an X-ray source (1) for radiating a primary X-ray onto the sample, an X-ray detector (7) for detecting a secondary X-ray emanating from the sample in response to irradiation of the primary X-ray onto the sample, and a collimator (4) interposed in a path of the secondary X-ray between the sample and the X-ray detector for allowing a collimate component of the secondary X-ray to pass therethrough (col. 1, lines 12-50; col. 3, lines 49-56; col. 5, lines 1-11; figure 1).

The appellant argues that "the collimator of Kuwabara does not serve to allow substantially only a collimate component of the secondary X-ray to pass therethrough as required by independent claim 5" (brief, page 15). This argument is not well taken because, first, the appellant is relying upon a limitation which is not in claim 5. See *In re Self*, 671 F.2d 1344, 1348, 213 USPQ 1, 5 (CCPA 1982). Second, Kuwabara indicates that the collimator allows substantially only a collimate component of the secondary X-ray to pass therethrough (col. 1, lines 21-26; col. 3, lines 54-56; col. 5, lines 2-6).

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The appellant argues that Kuwabara's "Soller slits are not removably insertable in the X-ray path as required by the present invention and thus do not read on independent claims 1 and 5" (reply brief, page 5). This limitation is not in claim 5.

For the above reasons we affirm the rejection of claim 5 and claims 6-9 that stand or fall therewith.

DECISION

The rejection of claims 1 and 5-7 under 35 U.S.C. § 102(b) over Kuwabara is reversed as to claim 1 and affirmed as to claims 5-7. The rejection under 35 U.S.C. § 103 of claims 2 and 8 over Kuwabara is reversed as to claim 2 and affirmed as to claim 8. The rejection under 35 U.S.C. § 103 of claims 3 and 9 over Kuwabara in view of Kumakhov is reversed as to claim 3 and affirmed as to claim 9. The rejection under 35 U.S.C. § 103 of claim 4 over Kuwabara in view of Cash is reversed.

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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

Chung K. Pak)	
Administrative Patent Judge)	
)	
)	
)	BOARD OF PATENT
Terry J. Owens)	
Administrative Patent Judge)	APPEALS AND
)	
)	INTERFERENCES
)	
Thomas A. Waltz)	
Administrative Patent Judge)	

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