

The opinion in support of the decision being entered today was not written for publication and is not binding precedent of the Board.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. 40

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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***Ex parte*** KYOICHI YAMAMOTO

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Appeal No. 2002-0582  
Application No. 09/083,936

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ON BRIEF

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

***DECISION ON APPEAL***

The invention relates to an arc-extinguishing system for a contact switching apparatus. See page 1 of Appellant's specification. Figures 5 and 6 show a second embodiment of the arc-extinguishing system for a contact switching apparatus according to the present invention. See page 16 of Appellant's specification. Arc cover 30 is connected onto the top surface of the arc box 6. Figure 8 shows another embodiment of the arc-extinguishing system. Figure 8 shows the gas blow-off opening sections 40, 41 and 42 formed by the arc box 6 and the arc cover 20. See pages 19 and 20 of Appellant's specification.

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Independent claim 6 is representative of Appellant's claimed invention and is reproduced as follows:

6. An arc-extinguishing system for a contact switching apparatus comprising:

a plurality of arc-extinguishing grid plates, arranged outside a movable contact of the contact switching apparatus, vertical to said moveable contact, and

an arc box and an arc cover, for covering said contact switching apparatus and said arc-extinguishing grid plates;

wherein a gas blow-off opening section, formed by said arc box and said arc cover, is opened at an angle with respect to a top of the arc cover or sides of the arc box, to direct a flow of gas discharged from the gas blow-off opening section.

#### **References**

The references relied on by the Examiner are as follows:

Mune	3,773,992	Nov. 20, 1973
Kakizoe et al. (Kakizoe)	4,596,909	Jun. 24, 1986
Manthe et al. (Manthe)	5,756,951	May 26, 1998 (filed Sep. 23, 1996)

#### **Rejections at Issue**

Claims 6, 9 and 12 stand rejected under 35 U.S.C. § 103 as being unpatentable over Kakizoe in view of Mune.

Claims 7 and 8 stand rejected under 35 U.S.C. § 103 as being unpatentable over Kakizoe and Mune in view of Manthe.

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Throughout the opinion, we will make references to the briefs<sup>1</sup> and answer for the respective details thereof.

**OPINION**

With full consideration being given the subject matter on appeal, the Examiner's rejections and arguments of Appellant and Examiner, for the reasons stated *infra*, we reverse the Examiner's rejection of claims 6-8, 9 and 12 under 35 U.S.C. § 103.

In rejecting claims under 35 U.S.C. § 103, the Examiner bears the initial burden of establishing a *prima facie* case of obviousness. *In re Oetiker*, 977 F.2d 1443, 1445, 24 USPQ 1443, 1444 (Fed Cir. 1992). *See also In re Piasecki*, 745 F.2d 1468, 1472, 223 USPQ 785, 788 (Fed Cir. 1984). The Examiner can satisfy this burden by showing that some objective teaching in the prior art or knowledge generally available to one of ordinary skill in the art suggests the claimed subject matter. *In re Fine*, 87 F.2d 1071, 1074, 5 USPQ2d 1596, 1598 (Fed. Cir. 1988). Only if this initial burden is met does the burden of coming forward with evidence or argument shift to the Appellant.

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<sup>1</sup> Appellant filed an appeal brief on April 10, 2001. Appellant filed a supplemental appeal brief on August 20, 2001. Appellant filed a reply brief on August 20, 2001. The examiner mailed out an Office communication on September 18, 2001, stating that the reply brief has been entered and considered.

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**Oetiker**, 977 F.2d at 1445, 24 USPQ at 1444. See also **Piasecki**, 745 F.2d at 1472, 223 USPQ at 788.

An obviousness analysis commences with a review and consideration of all the pertinent evidence and arguments. "In reviewing the [E]xaminer's decision on appeal, the Board must necessarily weigh all of the evidence and arguments." **In re Oetiker**, 977 F.2d at 1445, 24 USPQ2d at 1444. "[T]he Board must not only assure that the requisite findings are made, based on evidence of record, but must also explain the reasoning by which the findings are deemed to support the agency's conclusion." **In re Lee**, 277 F.3d 1338, 1344, 61 USPQ2d 1430, 1434 (Fed. Cir. 2002). With these principles in mind, we commence review of the pertinent evidence and arguments of Appellant and Examiner.

In the brief and supplemental brief, Appellant argues that neither Kakizoe nor Manthe either alone or in combination teach or suggest forming the gas blow-arc openings from the arc cover and the arc box. Appellant points out that this limitation is recited in each of the independent claims 6, 9 and 12. Appellant further points out that claims 7 and 8 also recite this limitation because they depend on claim 6.

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The Examiner argues that Appellant's claims do not exclude the cover from being integral with the arc box. The Examiner acknowledges that Kakizoe does not show a venting passage in the arc box. The Examiner instead relies on Figures 5 and 6 of Manthe for showing the gas blow-arc openings. See pages 3, 4 and 6 of the Examiner's answer.

We note that Appellant's independent claim 6 recites  
an arc box and an arc cover . . . wherein a gas blow-off opening section, formed by said arc box and said arc cover.

Appellant's independent claim 9 recites

an arc box and an arc cover . . . wherein a void along an end surface of the arc-extinguishing grid plates is communicated and connected to a path substantially vertically formed by the arc cover and the arc box to form an L-shaped path, so that a gas blow-off opening section having the L-shaped path is opened to a side face of the arc box.

Appellant's independent claim 12 recites

an arc-box and an arc cover . . ., wherein a gas blow-off opening section, formed by said arc box and said arc cover, is covered by a plurality of subdividing projections provided from said arc cover.

Thus, the plain language of the claims recites two separate elements, an arc box and an arc cover, and that these two elements form a gas blow-off opening. Therefore, we fail to find

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that the Examiner can read on Appellant's claim language by a prior art interval box.

Mune discloses in column 1, lines 50-51, that Figures 5 and 6 are partial greatly enlarged, sectional views taken along the lines 5-5 and 6-6, respectively, in Figure 3. Turning to Figure 3, the sectional lines show that Figure 5 and Figure 6 are solely part of the housing and are not made up of the arc box and the arc cover.

Claims 7 and 8 stand rejected under 35 U.S.C. § 103 as being unpatentable over Kakizoe and Mune in view of Manthe. Upon our review of Manthe, we find that Manthe teaches a gas blow-off opening section formed by an arc box and an arc cover. Therefore, we will not sustain this rejection for the same reasons as stated above.

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In view of the foregoing, we have not sustained the  
Examiner's rejection of claims 6-8, 9 and 12 under 35 U.S.C.  
§ 103.

**REVERSED**

ERROL A. KRASS	)	
Administrative Patent Judge	)	
	)	
	)	
	)	
	)	BOARD OF PATENT
MICHAEL R. FLEMING	)	APPEALS
Administrative Patent Judge	)	AND
	)	INTERFERENCES
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	)	
JOSEPH L. DIXON	)	
Administrative Patent Judge	)	

MRF/lbg

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