

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. 28

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte ELNA B. BERG and HANS J. NILSSON

Appeal No. 2000-1669
Application No. 08/433,328

HEARD: FEBRUARY 13, 2001

Before FRANKFORT, GONZALES, and LAZARUS, Administrative Patent Judges.

LAZARUS, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on appeal from the examiner's final rejection of claims 16 and 17, which are all of the claims pending in this application.

We affirm.

THE INVENTION

The appellants' invention relates to an oblong spacer to be used in conjunction with a metered dose inhaler

(specification, page 1). Claims 16 and 17 read as follows:¹

16. A spacer for use with a metered dose inhaler (MDI), comprising a continuous solid metal body which defines a chamber having a total volume of between 50 and 400 ml, wherein said body has a generally oblong shape which is rotationally symmetrical about a longitudinal axis and an opening at each end, one of the openings being adapted for connection to a metered dose inhaler (MDI).

17. The spacer of claim 16, wherein the body is composed of stainless steel.

THE PRIOR ART

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

Kraemer	5,427,089	Jun. 27, 1995 (filed Sep. 8, 1993)
Calvert et al. (Calvert)	5,522,383	Jun. 4, 1996

¹ Applicants' amendment (Paper No. 16), filed October 8, 1998, prior to the final rejection (Paper No. 18), includes changes to claim 16, the abstract and the specification. Notwithstanding the examiner's approval of entry of this amendment (See Paper No. 18), we note that the record does not show that the amendment has been formally entered. Nevertheless, because the examiner has indicated that the correct reading of claim 16 is that which is found in the appendix to the brief, we shall treat the copy of claim 16 in the brief as being the correct one for purposes of deciding this appeal.

In reaching our decision, we have given careful consideration to 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 sufficient to establish a prima facie case of obviousness with respect to claims 16 and 17. Accordingly, we will sustain the examiner's rejection of claims 16 and 17 as unpatentable over Blower, in view of Kraemer and Calvert. Our reasoning for this determination follows.

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, 458 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).

With this as background, we analyze the prior art applied by the examiner in the rejection of the claims on appeal.

While the examiner has relied on Blower for his disclosure of an oblong-shaped spacer, we find that, since Kraemer also teaches an oblong-shaped spacer, the examiner's rejection of claims 16 and 17 is appropriate with or without the teaching of Blower.

As shown in Fig. 1, Kraemer's structure for holding a dose of medicament is a generally oblong continuous solid plastic tube (1) that "defines a chamber 2 having a volume of from 200 to 500 ml, preferably from 250-350 ml" (column 2,

lines 60-67). A metered dose of a medicament-containing aerosol is dispensed into the chamber (2) through the spout (4) from a metered-dose aerosol container (6) (column 3, lines 15-19). Kraemer discloses tailoring the device for infants and young children by providing the volume of the chamber to be from 200-500 ml (column 2, lines 8-28). See also column 4, lines 66-68 and column 5, lines 1-2.

Calvert discloses an inhaler for dispensing a medicament from a capsule (column 1, lines 7-8) and teaches that "delivery of the medicament depends not only upon the medicament being removed from the capsule but also upon the medicament actually reaching the respiratory tract of the user during inhalation" (column 4, lines 53-56). Calvert provides that

[i]n order to minimise the extent to which the released powdered medicament can agglomerate on the surface of the air passage through the inhaler, the panels 2, 4 and the partition 8 which define the chamber portion 3 may be formed of a polymer with a low surface resistivity, thereby having anti-static properties. Preferably the material defining the inside wall of the chamber 3 is a polymer having a surface resistivity less than 10^{12} Ohms or more preferably less than 10^8 Ohms (column 5, lines 18-26).

The use of various polymer additives is discussed in the Calvert reference to increase anti-static properties of the air passage surfaces. It is stated that "if the material chosen for all of the embodiments of the inhaler in accordance with the invention is one which has relatively low electrostatic attraction for the powder in the capsule, the inhaler will not need regular cleaning" (column 7, lines 1-5).

Calvert also teaches use of a grid (30) in the air passage (Fig. 8), and discloses that "grid (30) is of a material which is electrically conductive or is otherwise anti-static. Preferably the material used is a conductive polymer. However, the grid may be of a metal such as stainless steel" (column 7, lines 25-28).

The examiner's rejection (Paper No. 14, pages 2 and 3) relies on Blower's teaching of an oblong-shaped spacer, Kraemer's teaching of a spacer volume of 200 to 500 ml, and Calvert's teaching of using steel filler, and that the entire body is formed of the same material.

It is appellants' position that "[e]verything said in the three references is consistent with conventional wisdom of using plastic. Nothing in the cited references suggests a spacer made of continuous solid metal, as claimed" (brief, page 9).

It is our opinion that the combination of Blower, Kraemer, and Calvert would have been suggestive of the subject matter of appellants' claims 16 and 17. Kraemer's tube (1) satisfies all of the limitations of appellants' claims 16 and 17 except for the limitations that the spacer is a continuous solid metal body (claim 16) and that the body is composed of stainless steel (claim 17). Kraemer's oblong (i.e. elongated) tube (1) (Fig. 1) has a chamber (2) with a total volume of 200 to 500 ml, and preferably from 250 to 350 ml (column 2, line 66), and receives a medicament from a metered dose inhaler (MDI).

Calvert teaches that the air passage surfaces of an inhaler should have anti-static properties (column 5, lines 18-23), suggests using low electrostatic attraction material

for all embodiments (column 7, lines 1-6) and discloses that grid (30), which is shown in the air passageway (Fig. 8), is also of an anti-static material such as stainless steel. Therefore, it is our further opinion that, because one of ordinary skill in the art would have recognized the importance that the medicament actually reach the respiratory tract of the user during inhalation, it would have been obvious to that person at the time the invention was made to make Kraemer's tube (1) of stainless steel since, as suggested by Calvert, making the air passage of anti-static material, like stainless steel, minimizes the extent powdered medicament can agglomerate on the surface of the inhaler's air passage.

We note appellants' argument that Calvert is not directed to a spacer or to an MDI; thus one of ordinary skill in the art would not be motivated to consider Calvert in combination with Kraemer. In order to rely on a reference as a basis for rejection of the applicant's invention, the reference must either be in the field of applicants' endeavor or, if not, then be reasonably pertinent to the particular problem with which the inventor was concerned. See In re Deminski, 796

F.2d 436, 442, 230 USPQ 313, 315 (Fed. Cir. 1986). Both Calvert and Kraemer are reasonably pertinent to the problem faced by appellants, providing an inhaler for delivering a measured amount of medicament to the patient while minimizing the electrostatic attraction of the respirable particles to the walls of the device (appellants' specification, page 5, lines 22-28).

Our reliance on Calvert's disclosure of stainless steel as an anti-static material, although different from the examiner's reliance on Calvert's teaching of carbon or steel-filler used to increase the anti-static properties of polymers, does not warrant our affirmance being denominated as a new ground of rejection. In our view, appellants have had a fair opportunity to evaluate Calvert's disclosure of anti-static materials. See In re Kronig, 539 F.2d 1300, 1303, 190 USPQ 425, 427 (CCPA 1976).

CONCLUSION

In summary, the decision of the examiner to reject claims 16 and 17 under 35 U.S.C. § 103 is affirmed.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 CFR § 1.136(a).

AFFIRMED

CHARLES E. FRANKFORT)	
Administrative Patent Judge)	
)	
)	
)	
)	BOARD OF PATENT
JOHN F. GONZALES)	APPEALS
Administrative Patent Judge)	AND
)	INTERFERENCES
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RICHARD B. LAZARUS)	
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APPLICATION NO. 08/433,328

APJ LAZARUS

APJ GONZALES

APJ FRANKFORT

DECISION: **AFFIRMED**

Prepared By:

DRAFT TYPED: 12 Sep 02

FINAL TYPED: