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BOARD OF PATENT APPEALS
AND INTERFERENCES

THIS OPINION WAS NOT WRITTEN FOR PUBLICATION

This opinion in support of the decision being entered today (1) was not written for publication in a law journal and (2) is not binding precedent of the Board.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. 20

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte ROLF ZANDER
and FRIEDRICH MERTZLUFFT

Appeal No. 96-0014
Application 07/957,740¹

ON BRIEF

Before CALVERT, STAAB, and McQUADE, *Administrative Patent Judges.*

CALVERT, *Administrative Patent Judge.*

DECISION ON APPEAL

¹ Application for patent filed October 7, 1992, which is, according to appellants, a continuation-in-part of Serial No. 07/672,184, filed March 20, 1991, now abandoned.

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This is an appeal from the examiner's refusal to allow claims 1 to 25, all the claims in the application.

Claims 1 and 2, the two independent claims, read as follows:

1. An apparatus for oxygenating a patient, comprising an oxygen supply means with an oxygen applicator for supplying oxygen via the nose, the oxygen applicator being a closed system, said applicator affixable about the nose in a tightly-sealable manner so that it supplies pure oxygen solely via the nose in a directed flow, and additionally comprising a one-way valve which can be inserted in substantially sealing tight manner into the mouth of the patient, the one-way valve opening only upon gas outflow out of the mouth, said closed system at all times having a pressure which is greater than the pressure necessary to open said one-way valve during gas outflow, such that respired air from the patient can escape only through the mouth and no air can escape through the nose.

2. An apparatus for oxygenating a patient, comprising an oxygen supply means with an oxygen applicator for supplying oxygen via the nose, a first one-way valve inserted in a substantially sealing-tight manner into the oxygen supply means, said first one-way valve opening only upon gas inflow into the nose, otherwise closing the oxygen applicator being constructed in a tightly-sealable manner concerning the nose so that it supplies pure oxygen solely via the nose in a directed flow, and additionally comprising a second one-way valve which can be inserted in substantially sealing-tight manner into the mouth of the patient, said second one-way valve opening only upon gas outflow out of the mouth, otherwise closing and allowing excess oxygen and expired air to escape solely through the mouth.

The prior art applied by the examiner is:

McGargill	1,362,766	Dec. 21, 1920
Margaria	2,432,627	Dec. 16, 1947
de la Cruz	4,350,647	Sep. 21, 1982
Witzenmann (British patent)	27,599	Jan. 21, 1904

In the final rejection, claims 1 to 25 were rejected under 35 USC 103 as follows:

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1. Claims 1, 2, 5 to 10, 13, 14, and 19-25, unpatentable over Witzemann;
2. Claims 3 and 4, unpatentable over Witzemann in view of Margaria;
3. Claims 11 and 12, unpatentable over Witzemann in view of McGargill;
4. Claims 15 to 18, unpatentable over Witzemann in view of de la Cruz.

Also, in the examiner's answer the examiner applied the following new ground of rejection:

5. Claims 1, 3, 5, 7, 9, 11, 13, 15, 17, 19, 21 and 23, unpatentable under 35 USC 112, first paragraph.

In reaching our decision, we have considered the entire record, including, inter alia, the following papers subsequent to the examiner's answer: (1) Reply Brief (Paper No. 15) and Amendment in Reply to New Ground of Rejection (Paper No. 16); (2) Supplemental Examiner's Answer (Paper No. 17); (3) Supplemental Reply to Examiner's Supplemental Answer (Paper No. 18).

Rejections Under 35 USC 103

In the final rejection and examiner's answer, the examiner states that these rejections over prior art are "for the reasons set forth in the [first] Office action dated 6/3/93 [(Paper No.

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5)]." Accordingly, we will first consider the rejection of claim 1 over Witzenmann by referring to Paper No. 5.

Appellants have presented a number of arguments as to why they consider that claim 1 distinguishes over Witzenmann, but for convenience we will focus on the final limitation of the claim, namely:

said closed system at all times having a pressure which is greater than the pressure necessary to open said one-way valve during gas outflow, such that respired air from the patient can escape only through the mouth and no air can escape through the nose.

In Paper No. 5 (page 3), the examiner stated that:

since the closed system of Witzenmann includes structural features (i.e. exhalation valve "e") which allows exhalation from the mouth only of a user (p. 1, line 13 and line 15) or a combination of mouth and nose, the system of Witzenmann also has such a pressure as set forth in the abovementioned functional claim language.

Likewise, in the final rejection (Paper No. 7), he stated at page 4:

the claims only recite this pressure as an intended result not as a positive structural feature of the claims and as such since Witzenmann provides the structural features to provide such a pressure, it is submitted that it can provide such a pressure and is readable upon this claimed intended result.

However, in the examiner's answer the examiner, while acknowledging at pages 7-8 that appellants' conclusion that Witzenmann did not provide a pressure as claimed "may be accurate," seemed to feel that the limitation did not need to be

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addressed because it was inconsistent with the specification, as addressed in the 35 USC 112 new ground of rejection.

We do not agree with the examiner. In the first place, we do not consider the limitation as to the closed system having a certain pressure to be merely an "intended result," but rather a positive limitation which must be met by the prior art. Secondly, it is well settled that it is error to ignore specific limitations distinguishing over the references. In re Glass, 472 F.2d 1388, 176 USPQ 489 (CCPA 1973). Even though a limitation in a claim may be considered indefinite, new matter, or otherwise not in compliance with 35 USC 112, it must be considered when evaluating the claim with regard to patentability over prior art. In re Wilson, 424 F.2d 1382, 165 USPQ 494 (CCPA 1970); Ex parte Pearson, 230 USPQ 711 (BPAI 1985), aff'd mem., 795 F.2d 1017 (Fed. Cir. 1986).

Although we do not find any disclosure in Witzenmann that the pressure in oxygen supply s could provide a pressure greater than that necessary to open the one-way valve e, even assuming that such pressure were available (e.g., in the oxygen supply tank), we do not consider one of ordinary skill in the art would have derived from Witzenmann any suggestion that such pressure be maintained at all times in the oxygen supply system. Since the inlet and exhaust valves d and e of Witzenmann are in direct communication through casing c (Fig. 5), if the oxygen pressure

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in c were at all times greater than the pressure necessary to open valve e, the oxygen would simply flow directly through casing c from supply s and out valve e, bypassing the intended user. In view of the fact that such a modification would render the apparatus of Witzenmann unsuitable for its intended purpose, it cannot be said that it would have been obvious to one of ordinary skill in the art. Ex parte Rosenfeld, 130 USPQ 113 (Bd. App. 1961).

Accordingly, the rejection of claim 1 over prior art will not be sustained, and likewise, neither will the rejection of the claims dependent on claim 1, i.e., claims 3, 5, 7, 9, 11, 13, 15, 17, 19, 21 and 23.

Turning to claim 2, we consider that this claim is unpatentable over Witzenmann, which discloses an oxygen supply means (p. 1, line 30), a first one-way valve d, a casing c fitting against the face with nozzle or slits a and b for the nostrils, a tube m connected to a mouthpiece n, and an exhaust valve e for the vitiated air to escape. On pages 7 to 9 of their brief, appellants list a number of purported differences between the Witzenmann apparatus and their claims 1 and 2, but we do not find that there is any patentable distinction between claim 2 and the Witzenmann disclosure.

With regard to the question of supplying oxygen "solely via the nose," as recited in the claim, the examiner notes that on

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page 1, lines 13 to 17; Witzenmann states that the user may breathe through his nose and mouth, mouth only, or nose only. In view of this comprehensive disclosure, we believe it would have been obvious to use the Witzenmann apparatus by inhaling through the nose and exhaling through the mouth into tube m, in which case the oxygen would be supplied "solely via the nose" and expired air would escape "solely through the mouth," as claimed.² While the inhalation would be from the interior of casing c and the exhalation from the mouth would be into casing c (then out valve e), it appears that the nose would be supplied with pure oxygen in view of Witzenmann's disclosure that the apparatus "has the additional advantage of entirely preventing the air which has once been used from being breathed over again" (p. 2, lines 1 to 5).

Appellants assert that Witzenmann's one-way valve e cannot be "inserted in substantially sealing-tight manner into the mouth of the patient." However, although valve e per se is not inserted into the user's mouth, we consider that this expression is readable on the combination of valve e, nozzle k, tube m and mouthpiece n of Witzenmann. Since mouthpiece n is inserted into the user's mouth, and thereby communicates the mouth with valve e

² Although, in Witzenmann's apparatus, "exhalation from the nose, too, is possible," as argued on page 9 of the brief, claim 2 recites no structure preventing exhalation through the nose.

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through k and m, the combination may be considered a valve inserted into the mouth in the same manner as appellants' disclosed valve 3, 4, which is not itself inserted into the mouth, but communicates therewith through tubular member 6.

We will therefore sustain the rejection of claim 2 over prior art. Dependent claims 6, 8, 10, 14, 20, 22, 24 and 25, not being argued separately, fall with claim 2. In re Sernaker, 702 F.2d 989, 217 USPQ 1 (Fed. Cir. 1983).

We will also sustain the rejection of claim 4 as unpatentable over Witzenmann in view of Margaria. Appellants' arguments notwithstanding (brief, pp. 9 and 10), we consider that it would have been obvious, from Margaria's broad teaching of the use of a bag in an oxygen supply system, to use such a bag with the Witzenmann apparatus. In this connection, we note that on page 6 of their specification, fourth paragraph, appellants acknowledge that the oxygen bag is interposed between the source and the applicator in "per se known manner."

The rejection of claim 12 over Witzenmann in view of McGargill is likewise well taken. Employment of an exhalation valve consisting of flexible plates as the valve e of Witzenmann would constitute merely the obvious selection of a known type of such valve, the particular type of valve claimed being disclosed by McGargill as flutter valve 16 (page 1, lines 26 to 31, and page 1, line 104 to page 2, line 3). Although McGargill

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discloses the valve as used in a gas mask, it would obviously be applicable to other types of breathing apparatus such as Witzenmann's.

The rejection of claims 16 and 18 as unpatentable over Witzenmann in view of de la Cruz will not be sustained. These claims recite that the (second) one-way valve which can be inserted in the mouth generates a visual or acoustic signal. De la Cruz discloses a valve 15 which generates an acoustic signal, but the valve is used on the supply side of an oxygen system and is used to warn of excess pressure if the gas supply to the patient is cut off. We find no suggestion in this reference that such a valve be employed on the exhaust (expiration) side of an oxygen system, and do not consider that one of ordinary skill in the art would have found it obvious from the de la Cruz disclosure to employ such a valve as exhaust valve e of Witzenmann.

Rejection Under 35 USC 112

This rejection, under 35 USC 112, first paragraph, is "for the reasons set forth in the objection to the specification"; those reasons are (answer, pages 5 and 6):

The specification is objected to under 35 USC § 112, first paragraph, as failing to provide an adequate written description of the invention.

In claim 1, "...said closed system at all times having a pressure which is greater than the pressure necessary to open said one-way valve,..." is not consistent with the specification on page 9, lines 6-10 which recites "...there are valve members 4 which are so constructed that they spread apart from one another during exhalation or during gas outflow, whereas they otherwise are pressed in sealing-tight manner on one another (for example during the inhalation process) and prevent the ingress of ambient air." Claim 1 defines a system pressure which at ALL times has a pressure greater than the pressure necessary to open the one way valve (4) which clearly indicates that valve (4) is always in an open position during use; however, contrary to claim 1, the specification on page 9, lines 6-10, recites that the valve does close during inhalation.

This rejection will not be sustained. The examiner seems to be under the impression that in appellants' apparatus, the entire system, i.e., the applicator 1 and mouth-inserted tube 6, etc., must all be under a pressure greater than that necessary to open the exhaust valve 3, but this is not a requirement of either the specification or claim 1. Instead, the specification discloses at page 3, lines 3 to 12, that the oxygen applicator is a closed system, and that "the pressure within the applicator system...is always greater than the pressure required to open the one-way valve in the mouth. Since the respired air follows the path of least resistance to flow, all of the respired air necessarily escapes through the mouth, and no air escapes through the nose." (emphasis added). Likewise, claim 1 recites "the oxygen applicator being a closed system,...said closed system at all times having a pressure which is greater than the pressure

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necessary to open said one-way valve..." (emphasis added). Thus, both the specification and claim 1 are consistent in stating that the pressure in the applicator (i.e., mask 1, 7, 8) is at all times greater than the pressure required to open valve 3. They do not state that the pressure in the mouth is at that pressure at all times, but rather, as indicated on page 3, lines 10 to 12 of the specification, the respired (exhaled) air, being at a lower pressure, "follows the path of least resistance to flow" and escapes through the mouth (which would be at a lower pressure) rather than the nose (which at all times would be at the claimed pressure). We therefore find no inconsistency between the specification and claim 1.

Summary

The examiner's decision to reject claims 1, 3, 5, 7, 9, 11, 13, 15, 17, 19, 21 and 23 under 35 USC 103 and 112 is reversed. The examiner's decision to reject claims 2, 4, 6, 8, 10, 12, 14, 20, 22, 24 and 25 under 35 USC 103 is affirmed, and to reject claims 16 and 18 under 35 USC 103 is reversed.

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

AFFIRMED-IN-PART

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