

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(2) is not binding precedent of the Board.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. 26

UNITED STATES PATENT AND TRADEMARK OFFICE

---

BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

---

Ex parte MICHAEL J. BROOKMAN and ERIC M. HINER

---

Appeal No. 1998-1315  
Application 08/334,751

---

HEARD: February 11, 1997

---

Before STONER, Chief Administrative Patent Judge, and  
FRANKFORT, Administrative Patent Judge and STAAB  
Administrative Patent Judge.

FRANKFORT, Administrative Patent Judge.

Appeal No. 1998-1315  
Application No. 08/334,751

DECISION ON APPEAL

This is a decision on appeal from the examiner's final rejection (Paper No. 10) and rejection in the first supplemental examiner's answer (Paper No. 19) of claims 1, 2, 4 through 9, 11 through 13 and 15 through 18<sup>1</sup>. Claims 3, 10, 14, 19 and 20 stand allowed.

Appellants' invention is directed to a device for use in hypoxic and fire emergencies to protect the user from heat, noxious and/or toxic gases. The device includes a "dry" multi-stage filter (66) which converts atmospheric gases into breathable air, and a mask 22 made to conform to fit around the user's mouth and nose region. The dry multi-stage filter has: a first stage (82 and 88) which filters out smoke; a second stage 90 for filtering out toxic gases; a third stage 92 for filtering out remaining gases; a fourth stage 94 which converts carbon monoxide to carbon dioxide; and a fifth stage

---

<sup>1</sup>From a review of the record, it is understood that it is claims 1, 2, 4 through 9, 11 through 13 and 15 through 18 that are rejected as opposed to "1, 2, 4-9, 1-13 and 15-18" as stated in the first supplemental examiner's answer.

Appeal No. 1998-1315  
Application No. 08/334,751

for heat absorption. The mask has an exhalation valve (26) for expelling expired air. A hood (36) is attached to the mask which can be deployed by pulling deployment straps (48) and made to fit over the head, neck and shoulder of the user. The mask also has a means (23) for retaining the mask tightly on the user's mouth and nose. The device can be used alone or used in connection with a breathable oxygen source (120) and is made to be stored in a standard overhead oxygen mask aircraft compartment (122) during non-emergency situations. Claim 1 is representative of the subject matter before us on appeal and a copy of that claim is attached to this decision.

The prior art references of record relied upon the examiner as evidence of obviousness are:

McGoff et al(McGoff)	5,038,768	Aug. 13, 1991
Brookman	5,115,804	May. 26, 1992

Claims 1, 2, 4 through 9, 11 through 13 and 15 through 18 stand rejected under 35 U.S.C. § 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to convey to one skilled in the

Appeal No. 1998-1315  
Application No. 08/334,751

relevant art that the inventor at the time the application was filed, had possession of the claimed invention. According to the examiner (first supplemental answer, Paper No. 19, pg. 2), "[t]he original disclosure of the parent does not support the recitation

of 'an exclusively dry multi-stage filtering means' as found in the instant case."

Claims 1, 5 and 17 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over McGoff in view of Brookman<sup>2</sup>.

Rather than attempt to reiterate the examiner's full statement with regard to the above noted rejections and conflicting viewpoints advanced by the examiner and appellants regarding the rejections, we make reference to the final rejection (Paper No. 10, mailed June 10, 1996), the answer (Paper No. 17, mailed April 15, 1997), the first supplemental answer (Paper No. 19, mailed September 2, 1997) and the second

---

<sup>2</sup> Issues 2 and 4 through 6 stated on page 8 of the answer have been withdrawn on page 3 of the first supplemental answer. Therefore, only issues 1 and 3 are remaining for consideration by this board.

Appeal No. 1998-1315  
Application No. 08/334,751

supplemental answer (Paper No. 25, mailed November 17, 1999) for the reasoning in support of the rejections, and to appellants' brief (Paper No. 13, received December 10, 1997), reply brief (Paper No. 18, received June 3, 1997) and supplemental reply brief (Paper No. 20, received November 4, 1997) for the arguments thereagainst.

#### OPINION

In reaching our decision in this appeal, we have given careful consideration to appellants' specification and claims, to the applied prior art references, and to the respective positions as set forth by the appellants and the examiner.

Before addressing the examiner's rejection specifically, we note that on page 8 of the brief, appellants indicate that "dependent claims 5 and 17 stand or fall with independent claim 1." Claim 1 is also the only independent claim that includes the objected to language of "an exclusively dry filtering means" which the examiner deems as new matter. Therefore, we will decide the issues on appeal based on this claim alone.

Appeal No. 1998-1315  
Application No. 08/334,751

We first turn to the examiner's rejection of claim 1 under 35 U.S.C. § 112, first paragraph, which rejection we understand to be based upon the written description requirement. In general, the test for determining compliance with the written description requirement of § 112, first paragraph, is whether the disclosure of the application as originally filed reasonably conveys to the artisan that the inventor had possession at that time of the later claimed subject matter, rather than the presence or absence of literal support in the specification for the claim language under consideration. Further, it is also well settled that the content of the drawings may be considered in determining compliance with the written description requirement. See Wang Laboratories Inc. v. Toshiba Corp., 993 F.2d 858, 865, 26 USPQ2d 1767, 1774 (Fed. Cir. 1993); Vas-Cath Inc. v. Mahurkar, 935 F.2d 1555, 1563-64, 19 USPQ2d 1111, 1116-17 (Fed. Cir. 1991); see also In re Kaslow, 707 F.2d 1366, 1375, 217 USPQ 1089, 1096 (Fed. Cir. 1983).

Claim 1 includes the language "an exclusively dry multi-stage filtering means" which the examiner states is more

Appeal No. 1998-1315  
Application No. 08/334,751

limiting than "dry" and constitutes new matter (first supplemental answer, Paper No. 19 pg. 2). The examiner concedes (first supplemental answer, Paper No. 19, pg. 2) that "a dry multi-stage filtering means" was supported in the original disclosure by way of the preferred embodiment, but the phrase "an exclusively dry multi-stage filtering means" added in an amendment after the first office action recites new matter. It is the examiner's position that appellants "have changed the scope of [the] disclosure . . . [and] have further limited the scope of [the] disclosure by now changing the description of their invention and their claims to the same to recite exclusively dry filter components. . . . This type of 'after-thought' limitation is improper" (first supplemental answer, Paper No. 19, pg. 3).

Since a "dry multi-stage filtering means" as set forth in claims 3, 10, 14, 19 and 20 of the application has been determined by the examiner to have support in the original disclosure (supplemental answer, Paper No. 19, pg. 2) and the term "dry" means "having no moisture,"<sup>3</sup> it is our view that

---

<sup>3</sup> A copy of the page from Webster's New World Dictionary which includes this definition is attached to this decision.

Appeal No. 1998-1315  
Application No. 08/334,751

adding the word "exclusively" before the word "dry" as in claim 1 on appeal has no substantive effect. In other words, since a "dry" multi-stage filtering means has no moisture, it follows that an "exclusively dry" multi-stage filtering means will likewise have no moisture. From appellants' specification, we understand that both a dry and an exclusively dry multi-stage filtering means is one wherein each and every stage thereof is dry.

Therefore, we reverse the 35 U.S.C. § 112, first paragraph rejection of claim 1 posited by the examiner. Since claims 2, 4 through 9, 11 through 13 and 15 through 18 depend from claim 1 we

will also reverse the examiner's rejection of these claims under 35 U.S.C. § 112, first paragraph.

With respect to the 35 U.S.C. § 103(a) rejection of claim 1 as being obvious over McGoff in view of Brookman, we first turn to the prior art patents used in the rejection. McGoff discloses a carbon monoxide conversion device used in training devices and simulators used with a conventional face mask and

Appeal No. 1998-1315  
Application No. 08/334,751

an oxygen source. This device comprises a canister (10) having "layers of filter and chemical parts through which air containing carbon monoxide with or without carbon dioxide, hydrocarbons and nitrogen oxides passes and is scrubbed for inhalation by a user" (col. 3, lines 26-30). Brookman discloses a respiratory system for use on aircraft or similar compartments to temporarily prevent asphyxiation or suffocation due to the presence of smoke, toxic and/or noxious gases, having a protective hood (28), an oral/nasal mask (1) and a connection to a fresh, breathable air supply. The filtering device comprises a wet chemical air purifier, which is ruptured by the user to release a wet agent to neutralize the noxious and toxic gases.

It is the examiner's position that McGoff teaches "an exclusively dry" multi-stage filtering device for protection from heat, noxious and/or toxic gases as recited in claim 1, and that the device is intended to be used with a convention mask (answer, Paper No. 17, pg. 5-6). The examiner relies on Brookman to show a conventional mask to be used with McGoff,

Appeal No. 1998-1315  
Application No. 08/334,751

with means for retaining the mask tightly on the user's mouth and nose region for use in a device that protects the user from heat, noxious and/or toxic gases. The examiner points out (answer, paper No. 17, pg. 8) that McGoff discloses "an operational device of the scope of [appellants'] claims with the exception of the particular mask structure," which is shown specifically in Brookman.

It is the appellants' position that "there is absolutely no teaching, suggestion or motivation in the references for the proposed combination [of McGoff and Brookman]" and states that McGoff "is merely a training device and not intended or practical for real life situations" (brief, paper No. 13, pages. 19-20). Appellants also states that the filter of McGoff "provides protection in environments where toxic fumes are limited to carbon monoxide, carbon dioxide, hydrocarbons and nitrogen oxides, and could not be used as a protective device from all heat, noxious and/or toxic gases which are present during hypoxic and fire emergencies" (brief, Paper No. 13, pg. 19). Appellant also states that there is absolutely no teaching, motivation or suggestion to utilize the McGoff for anything other than a training device and would not

Appeal No. 1998-1315  
Application No. 08/334,751

provide full protection in real-life situations (brief, Paper No. 13, pg. 22-23). "To modify McGoff in order for it to be use [sic, used] in real-life situations would destroy the purpose of the invention, namely to provide a low cost canister for training purposes. Accordingly, using an oral/nasal mask, such as the mask shown in Brookman, with McGoff still fails to provide for a device which can be utilized for real-life situations" (brief, Paper No. 13, pg. 23).

We do not agree with appellants that there is no teaching, suggestion or motivation for combining McGoff and Brookman. Although McGoff is intended to be used as a training device, we find that the device of McGoff provides for protection of a user from heat, noxious and/or toxic gases and we agree with the examiner that McGoff discloses the device as claimed except for the specifics of the mask. Since appellants have not further argued that McGoff fails to disclose an exclusively dry filtering system after the examiner's explanation on page 7 of the answer, we find the ultimate question to be, whether it would have been obvious to one of ordinary skill in the art to have utilized the mask of

Appeal No. 1998-1315  
Application No. 08/334,751

Brookman with the device of McGoff?

Appellants' claim 1 sets forth a device which protects a user from **heat, noxious and/or toxic gases**. We interpret this statement to mean that the device protects the user from any one or all of the three conditions during hypoxic and fire emergencies. We agree with the examiner (answer, Paper No. 17, pg. 7) that the "claim language does not require protection from all heat, noxious and/or toxic gases which are present during hypoxic and fire emergencies" and the device of McGoff would indeed provide protection for the user to the extent as claimed. We find nothing in the claim that requires the device to protect the user from all three conditions and McGoff does indeed provide protection from at least noxious and/or toxic gases. We also find that although the specifics of the mask and the means for retaining the mask over the user's mouth and nose are not expressly disclosed in McGoff, Brookman discloses a conventional mask that is capable of being used with the training device of McGoff. Presumably, if the mask of Brookman can be used in emergencies, it can also be used effectively in training, as well. Contrary to appellants' statement that McGoff's device

Appeal No. 1998-1315  
Application No. 08/334,751

"is merely a training device and not intended or practical for real life situations" (brief, Paper No. 13, pg. 20), there is no doubt that real life emergency situations can involve just "carbon monoxide, carbon dioxide, hydrocarbons and nitrogen oxides," which the device of McGoff is intended to specifically filter out. Since McGoff states (col. 1, lines 5-8) that his device "relates to the field of training devices and simulators, and, more specifically, to training in the use and wearing of a supplemental air supply apparatus that involves a face mask and an oxygen source" and since Brookman discloses a conventional face mask capable of being used with such a device, we find that the examiner has established a prima facie case of obviousness.

Therefore, we sustain the 35 U.S.C. § 103(a) rejection of claim 1 posited by the examiner. Since claims 5 and 17 depend from claim 1 and appellants have indicated in their brief (page 8 that these claims stand or fall with claim 1, it follows that we will also sustain the examiner's rejection of claims 5 and 17 under 35 U.S.C. § 103(a).

In summary, we are reversing the examiner's rejection of

Appeal No. 1998-1315  
Application No. 08/334,751

claims 1, 2, 4 through 9, 11 through 13 and 15 through 18 under 35 U.S.C. §112, first paragraph, and affirming the examiner's rejection of claims 1, 5 and 17 under 35 U.S.C. § 103(a) as being

unpatentable over McGoff and Brookman. Therefore, the decision to the examiner is affirmed-in-part.

In addition to the foregoing, we find it further necessary to REMAND this application to the examiner to consider the treatment of claims 1 and 5 through 7, wherein claims 6 and 7 have previously been deemed to contain allowable subject matter. US Patent No. 4,573,464<sup>3</sup> to Yo appears to disclose all elements claimed in claims 1 and 5 through 7 including an exclusively dry multi-stage filtering means for converting atmospheric gases into breathable air (col. 2, line 58-col. 3, line 33) housed within vessel (11), an oral/nasal mask (3), the mask having an exhalation valve (5), and means (9) for retaining the mask tightly on the user's mouth and nose regions. Regarding the limitations of claim 6 in this application, Yo also discloses a housing member (11) for the multi-stage filtering means having a first

Appeal No. 1998-1315  
Application No. 08/334,751

end adjacent valve (13) and a second end adjacent intake holes (10), a means for filtering (18a) (col. 4, lines 11-13), means for oxidating CO to CO<sub>2</sub> (19) (col. 3, lines 24-34) intermediate the means for filtering (18a) and the second end adjacent intake holes (10), means for reducing the temperature of the inhaled gases (16) made of glass fibers disposed intermediate the means for oxidating (19) and the second end of the housing

Regarding the limitations of claim 7 in this application, Yo also discloses the multi-stage filtering means comprising a screen (15a) disposed within the housing (11) intermediate the first end adjacent valve (13) and the means for filtering (18a). Regarding the means for reducing the temperature of the inhaled gases of claim 6 of the present application, US patent No. 4,754,751<sup>4</sup> to Mausteller teaches that in his respirator, the filtering canister includes a first mat filter (20) made of fiber glass material that is capable of heat transfer (col. 3, line 24-25; col. 3, lines 39-41; col. 4, line 65- col. 5, line 1). Glass fiber is specifically stated as being used as the filtering material 16 in Yo (col. 3,

---

<sup>4</sup> The patent to Mausteller is prior art of record.

Appeal No. 1998-1315  
Application No. 08/334,751

lines 15-18), which Mausteller teaches has inherent heat transfer characteristics.

We have also noticed that the following element numbers or reference characters are discussed in the specification but not shown in the drawings: 73, 113 and 116 .

In addition to affirming the examiner's rejection of one or more claims, this decision contains a remand. 37 CFR § 1.196(e) provides that

whenever a decision of the Board of Patent Appeals and Interferences includes or allows a remand, that decision shall not be considered a final decision. When appropriate, upon conclusion of proceedings on remand before the examiner, the Board of Patent Appeals and Interferences may enter an order otherwise making its decision final.

Regarding any affirmed rejection, 37 CFR § 1.197(b) provides:

Appellant may file a single request for rehearing within two months from the date of the original decision. . . .

The effective date of the affirmance is deferred until

Appeal No. 1998-1315  
Application No. 08/334,751

conclusion of the proceedings before the examiner unless, as a mere incident to the limited proceedings, the affirmed rejection is overcome. If the proceedings before the examiner does not result in allowance of the application, abandonment or a second appeal, this case should be returned to the Board of Patent Appeals and Interferences for final action on the affirmed rejections, including any timely request for rehearing thereof.

This application, by virtue of its "special" status, requires immediate action, see MPEP § 708.01 (Seventh Edition, July 1998).

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 AND REMANDED

Appeal No. 1998-1315  
Application No. 08/334,751

Bruce H., Stoner	)	
Senior Administrative Patent Judge	)	
	)	
	)	
	)	BOARD OF PATENT
Charles E. Frankfort	)	
Administrative Patent Judge	)	APPEALS AND
	)	
	)	INTERFERENCES
	)	
Lawrence J. Staab	)	
Administrative Patent Judge	)	

CF/dm

#### Appendix

1. A device for protection to a user, from heat, noxious and/or toxic gases during hypoxic and fire emergencies, the device used alone or the device is used in conjunction with a

Appeal No. 1998-1315  
Application No. 08/334,751

breathable oxygen source comprising:

an exclusively dry multi-stage filtering means for converting atmospheric gases into breathable air;

a mask having a first and second mask aperture, said mask constructed and arranged to conform to the contours of a user's mouth and nose region, said mask connected to said means for converting at said first mask aperture, said mask having an exhalation valve; and

means for retaining said mask tightly on a user's mouth and nose regions at said second mask aperture, said means for retaining connected to said mask;

wherein said device provides protection to a user, from heat, noxious and/or toxic gases which might be present during hypox and fire emergencies.

Dale Paul Dimaggio  
Malin Haley Dimaggio & Crosby  
Suite 1609  
One East Broward Boulevard  
Fort Lauderdale FL 33301