

The opinion in support of the decision being entered today was not written for publication and is not binding precedent of the Board.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. 51

**UNITED STATES PATENT AND TRADEMARK OFFICE**

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

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Ex parte GORAN SUNDHOLM

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Appeal No. 2004-1977  
Application No. 09/297,256

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HEARD: JANUARY 12, 2005

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Before COHEN, NASE and BAHR, Administrative Patent Judges.  
BAHR, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on appeal from the examiner's final rejection of claims 1-14, which are all of the claims pending in this application. Claims 1 and 11 were amended subsequent to the final rejection (Paper No. 35), thereby overcoming the rejection under the second paragraph of 35 U.S.C. § 112.

We REVERSE.

BACKGROUND

The appellant's invention relates to a fire fighting apparatus comprising a plurality of spray heads, a tube system for sending extinguishing medium to the spray heads, at least one drive gas source for driving extinguishing medium at a high pressure via the tube system to the spray heads and release means for activating the spray heads. A copy of the claims under appeal is set forth in the appendix to the appellant's brief.

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

Diquattro	3,012,613	Dec. 12, 1961
Naumann	3,613,794	Oct. 19, 1971
Lockwood	3,827,502	Aug. 6, 1974
Willms	4,082,148	Apr. 4, 1978

The following rejections are before us for review.

Claim 1 stands rejected under 35 U.S.C. § 102(b) as being anticipated by Naumann.

Claims 1-7 and 9-14 stand rejected under 35 U.S.C. § 103 as being unpatentable over Diquattro in view of Lockwood.

Claim 8 stands rejected under 35 U.S.C. § 103 as being unpatentable over Diquattro in view of Lockwood and Willms.

Rather than reiterate the conflicting viewpoints advanced by the examiner and the appellant regarding the above-noted rejections, we make reference to the answer (Paper No. 42) for the examiner's complete reasoning in support of the rejections and to

the brief and reply brief (Paper Nos. 41 and 43) for the appellant's arguments thereagainst.

### OPINION

In reaching our decision in this appeal, we have given careful consideration to the appellant's specification and claims, to the applied prior art references, and to the respective positions articulated by the appellant and the examiner. As a consequence of our review, we make the determinations which follow.

We turn our attention first to the rejection of claim 1 as being anticipated by Naumann. Independent claim 1 recites an extinguishing medium source consisting essentially of a long tube. After reading the positions of the examiner and appellant, it is apparent to us that the appeal of this rejection cannot be decided without first determining the meaning of "long" as used in the claim. When a word of degree is used, such as the term "long" in claim 1, it is necessary to determine whether the

specification provides some standard for measuring that degree. See Seattle Box Company, Inc. v. Industrial Crating & Packing, Inc., 731 F.2d 818, 826, 221 USPQ 568, 573-74 (Fed. Cir. 1984). In this case, we find such a standard on page 6 of appellant's specification, which states that

the length of the tube 2 may vary from the described one. In the application of the invention for extinguishing a fire in a

tunnel, the tube length referred to is of the size of at least about 1 km and typically several kilometres, though a tube length of only some hundred metres can be actual in certain applications.

On the basis of this disclosure, we interpret “long” as used in appellant’s claims as meaning a length of “some hundred metres” or more, which we understand to mean at least one hundred meters.

Naumann discloses a liquid aerosol dispenser for use, for example, in dispensing quenching agents to stop the propagation of explosions in confined areas such as in coal mines (column 1, lines 18-20), the dispenser comprising a container 13 for holding the quenching liquid, a gas compression tube 15 for containing a gas under pressure and an explosive charge housing 17. Disposed on the outside of the container 13 is a rupturable sealer 27.

According to the examiner, Naumann’s container 13 responds structurally to the “extinguishing medium source consisting essentially of a long tube” recited in appellant’s claim 1. As is evident on page 6 of the answer, the examiner has taken the position that appellant’s specification does not limit the term “long” to a specific range. On the basis of this position, which we do not consider to be well taken for the reasons discussed above, the examiner concludes that Naumann’s container 13 is a “long” tube. As the examiner has not pointed to any disclosure in Naumann which would indicate that the length of the container 13, or even the combined length of the container 13 and compression tube 15, approaches or exceeds one hundred meters, we must reverse this rejection.

We turn next to the rejection of claims 1-7 and 9-14 as being unpatentable over Diquattro in view of Lockwood. Independent claim 1, as discussed above, calls for an extinguishing medium source consisting of a long (i.e., one hundred meters or more in length) tube. Independent claims 13 and 14 recite an extinguishing medium source which consists essentially of a long tube which has a length of "at least two hundred meters" and "at least about 1 km," respectively.

The examiner's rejection of claims 1-7 and 9-14 suffers from the same deficiency as the above-discussed anticipation rejection of claim 1. Specifically, the examiner has not explained how Diquattro and Lockwood, even if combined, would have taught or suggested an extinguishing medium source which consists essentially of a tube of at least one hundred meters (claim 1), at least two hundred meters (claim 13) or at least about 1 km (claim 14).

Diquattro is directed to a coolant-dispensing system for preventing fire in, for example, a jet aircraft, by cooling hot metallic parts and comprises liquid coolant receptacles 16a-c in communication with medium under pressure in a receptacle 10 via a conduit 14 and manifold 12. Valve 15 in conduit 14 is normally closed but is opened by a solenoid or other actuator under the control of a switch which responds to or is operated in anticipation of collision or crash of the aircraft to send the pressurized medium into receptacles 16a-c, thereby causing discs 28 in the outlets of the receptacles to burst releasing coolant to supply points 1-8. The receptacles 16a-c may

be the same size or may vary in size and capacity to meet various combinations of requirements.

Lockwood discloses a fire extinguishing apparatus comprising a tube 4 containing fire extinguishing liquid, the tube designed to burst at a temperature developed by a fire to thereby release the extinguishing liquid. Lockwood teaches (column 1, lines 57-62) that for larger spaces, such as large engine compartments, the tube itself may not contain sufficient extinguishing liquid and that, in such cases, the tube may be connected at one end to a reservoir bottle.

The examiner somehow determines that Lockwood's teaching of providing a tube and, if needed for greater capacity, a reservoir bottle connected to the tube would have suggested shaping the receptacles 16a-c of Diquattro into a tube shape of appropriate length to meet various operating requirements (answer, pages 3-4). Even assuming that one of ordinary skill in the art would have been led, by the combined teachings of Diquattro and Lockwood, to shape Diquattro's receptacles 16a-c as tubes of an appropriate length to meet various operating requirements, it is not apparent to us how that would result in a tube having a length of at least one hundred meters, as called for in claim 1, at least two hundred meters, as called for in claim 13, or at least about 1 km, as called for in claim 14.

For the foregoing reasons, we must reverse the rejection of independent claims 1, 13 and 14, as well as dependent claims 2-7 and 9-12, as being unpatentable over Diquattro in view of Lockwood. As the examiner's application of Willms provides no

cure for the above-discussed deficiency of the combination of Diquattro and Lockwood, we must also cannot reverse the rejection of claim 8, which depends ultimately from claim 1, as being unpatentable over Diquattro in view of Lockwood and Willms.

CONCLUSION

To summarize, the decision of the examiner to reject claim 1 under 35 U.S.C. § 102(b) and claims 1-14 under 35 U.S.C. § 103 is reversed.

REVERSED

IRWIN CHARLES COHEN  
Administrative Patent Judge

JEFFREY V. NASE  
Administrative Patent Judge

JENNIFER D. BAHR  
Administrative Patent Judge

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