Paper No. 40

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte PHILIP L. BARBACCIA

Appeal No. 2001-0058
Application No. 281,815

ON BRIEF

Before CALVERT, ABRAMS, and BAHR, Administrative Patent Judges.

ABRAMS, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on appeal from the examiner's final rejection of claims 1-8, which are all of the claims pending in this application.

We REVERSE.

BACKGROUND

The appellant's invention relates to a method (claims 1-6) and apparatus (claims 7 and 8) for creating clouds of burning matter for use in military countermeasures. An understanding of the invention can be derived from a reading of exemplary claim 1, which appears in an appendix to the appellant's Brief.

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

Geeraert	2,669,437	Feb. 16, 1954
Griffin et al. (Griffin)	2,971,573	Feb. 14, 1961
Lager	3,150,848	Sep. 29, 1964
McKinnon	3,154,041	Oct. 27, 1964
Sargent et al. (Sargent)	3,258,917	Jul. 5, 1966
Corino et al. (Corino)	3,639,258	Feb. 1, 1972

Claims 1 and 4-8 stand rejected under 35 U.S.C. § 103 as being unpatentable over Lager in view of Griffin, Geeraert, Sargent and McKinnon.

Claims 2 and 3 stand rejected under 35 U.S.C. § 103 as being unpatentable over Lager in view of Griffin, Geeraert, Sargent, McKinnon and Corino.

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. 9) for the examiner's complete reasoning in support of the rejections, and to the Brief (Paper No. 8) and Reply Brief (Paper No. 10) 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.

Independent claim 1 is directed to a method for creating discrete clouds of burning matter which can be utilized for military countermeasures purposes to protect aircraft and other vehicles against infrared heat-seeking hostile missiles and light radiation devices such as laser weapons. The objective is to dispense from the vehicle a cloud of burning matter that has the same radiation signature as the vehicle propulsion means, so that any weapon is disposed to focus upon the cloud of burning material rather than the vehicle. As manifested in claim 1, the method comprises the steps of withdrawing from the fuel tank of the vehicle for which the protection is intended a quantity of the fuel used in the propulsion means of the vehicle, passing this fuel to a dispenser, gelling the fuel by adding a gelling agent, passing the gelled fuel through a plurality of openings in an apertured plate to change it into particulate form, the passing through being at a rate and pressure that will impart momentum sufficient to project the particles away from the dispenser such that the particulate gelled fuel is expelled from the vehicle in the form of a discrete cloud of particles, and igniting the cloud in the dispenser prior to its expulsion from the vehicle to

produce a fireball having wavelengths comparable to the radiation emitted by the vehicle propulsion means.

As we understand the examiner's rejection, it is that Lager discloses the basic steps of the method, that the missing features are taught by Geeraert, Griffin, Sargent and McKinnon, and that it would have been obvious to one of ordinary skill in the art to combine the teachings of the five references in such a manner as to render the claimed method obvious. The appellant disputes this conclusion, pointing out a number of reasons why he believes there would have been no suggestion to combine the references in the manner proposed by the examiner.

The test for obviousness is what the combined teachings of the prior art would have suggested to one of ordinary skill in the art. See, for example, In re Keller, 642 F.2d 413, 425, 208 USPQ 871, 881 (CCPA 1981). In establishing a prima facie case of obviousness, it is incumbent upon the examiner to provide a reason why one of ordinary skill in the art would have been led to modify a prior art reference or to combine reference teachings to arrive at the claimed invention. See Ex parte Clapp, 227 USPQ 972, 973 (Bd. Pat. App. & Int. 1985). To this end, the requisite motivation must stem from some teaching, suggestion or inference in the prior art as a whole or from the knowledge generally available to one of ordinary skill in the art and not from the appellant's disclosure.

See, for example, Uniroyal, Inc. v. Rudkin-Wiley Corp., 837 F.2d 1044, 1052, 5 USPQ2d 1434, 1439 (Fed. Cir.), cert. denied, 488 U.S. 825 (1988).

Lager is directed to the solution of the same problem as the appellant, but creates the cloud of burning matter in a different manner. Lager combines an oxidizer and a pyrophoric material in such proportions that they will spontaneously ignite when mixed, and dispenses the mixture from the vehicle through a nozzle. Ignition in the dispenser is prevented by also including in the ingredients an ignition inhibitor, which delays spontaneous ignition until the cloud is clear of the immediate vicinity of the vehicle. Using the language of claim 1 as a guide, Lager fails to disclose or teach withdrawing fuel from the propulsion fuel tank of the vehicle, passing gelled fuel through a plurality of openings in an apertured plate to change it into a particulate form at a rate and pressure that will impart momentum sufficient to project the particles away from the vehicle in a discrete cloud, and igniting the particles in the dispenser.

Geeraert is directed in general to a flame thrower gun and in particular to a device for mixing the ingredients for the flame. The only description provided of the configuration of the flame that issues from the weapon is that it is a “fluid stream” (column 5, line 59). There is nothing in the reference which would suggest that the flame is intended to be or is capable of functioning as a countermeasure, much less that it is in the form of a “discrete cloud,” or provides a radiation signature that is the same as that of the propulsion system

of the vehicle, as is required by claim 1. Geeraert has been cited by the examiner as teaching that the fuel of a vehicle can be used as an ingredient of a combustible mixture that is emitted from the vehicle. However, we cannot agree with the examiner that Geeraert would have suggested to one of ordinary skill in the art that the Lager system be modified to utilize vehicle fuel as an ingredient in the countermeasure material that is emitted from the vehicle. We arrive at this conclusion because Lager requires that the ingredients be an oxidizer and a material from the group which includes "alkyl and aryl amines, hydrazine hydrate, the metallo-organics (tributyl-ethyl, etc.) and aniline" (column 3, lines 6-10), that is, materials which when properly mixed with an oxidizer give rise to a product that is self-igniting. There is no evidence upon which to base the conclusion that the fuel of the vehicle would meet this requirement. Nor, in our view, would the combined teachings of Lager and Geeraert have suggested to one of ordinary skill in the art that the Lager system be changed from one in which the cloud is ignited after the material leaves the dispenser to one in which it is ignited in the dispenser, for this would require that the essence of the Lager invention be discarded, which would have been a disincentive to an artisan to do so. Further in this regard, we find nothing in these two references from which one of ordinary skill in the art would have learned to achieve the required separation between the vehicle and the countermeasure by creating a gelled medium and then passing it through an apertured plate to change it into particle form and at such a rate and

pressure as to impart momentum sufficient to project it away from the vehicle in the form of a discrete cloud, as is required by the claim.

Griffin is cited by the examiner for its teaching of "how a small amount of gelled fuel may [be] ignited and expelled," and Sargent and McKinnon for teaching "a gelled fuel may be broken up into particle form prior to ignition" (Answer, page 2). The examiner has not explained how the teachings of these references are to be interfaced with those of Lager and Geeraert to meet the limitations of claim 1 that are not taught by the two basic references and, left to our own devices, we are at a loss to appreciate how this would be done.

The mere fact that the prior art structure could be modified does not make such a modification obvious unless the prior art suggests the desirability of doing so. See In re Gordon, 733 F.2d 900, 902, 221 USPQ 1125, 1127 (Fed. Cir. 1984). We fail to perceive any teaching, suggestion or incentive which would have led one of ordinary skill in the art to modify the Lager system in the manner proposed by the examiner other than the hindsight afforded one who first viewed the appellant's disclosure. This, or course, is not a proper basis for a rejection under Section 103. See In re Fritch, 972 F.2d 1260, 1264, 23 USPQ2d 1780, 1784 (Fed. Cir. 1992).

For the reasons set forth above, we conclude that the combined teachings of Lager, Geeraert, Griffin, Sargent and McKinnon fail to establish a prima facie case of

obviousness with regard to the subject matter recited in independent claim 1, and we will not sustain the rejection of this claim or of claims 4-6, which depend therefrom.

Independent claims 7 and 8 are directed to apparatus for creating coherent clouds of burning matter that can be used as a military countermeasure. As pointed out by the appellant, the examiner has not explained how the combined teachings of the five applied references would have rendered the subject matter of claims 7 and 8 obvious. In fact, aside from their inclusion in the statement of the rejection, claims 7 and 8 have not even been mentioned in the Answer. From our perspective, these claims contain the same limitations, expressed in an apparatus format, as method claim 1, and the deficiencies pointed out above with regard to the rejection of claim 1 apply here also. The rejection of claims 7 and 8 is not sustained.

Claims 2 and 3 stand rejected on the basis of the references applied against claim 1, considered further with Corino, which was cited for teachings concerning gelling agents. Corino does not overcome the shortcomings in the rejection of claim 1, from which claims 2 and 3 depend, and therefore the rejection of these two claims also is not sustained.

SUMMARY

Neither rejection is sustained.

The decision of the examiner is REVERSED..

IAN A. CALVERT Administrative Patent Judge	)	
NEAL E. ABRAMS Administrative Patent Judge	) BOARD OF PATENT) APPEALS AND) INTERFERENCES	
JENNIFER D. BAHR Administrative Patent Judge	)	

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APPLICATION NO. 09/061,314

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APJ CALVERT

DECISION: **REVERSED**

Prepared By:

DRAFT TYPED: 26 Apr 02

FINAL TYPED: