M E M O R A N D U M

TO : ALL THE ATTORNEYS

DATE : MAY 21, 1991

FROM : S. NEIMARK

RE : USE OF "MEANS PLUS FUNCTION" LANGUAGE IN APPARATUS CLAIMS

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Attached you will find a response I filed in an application on April 15, 1991, answering a rejection in which the examiner had ignored the functional recitations in the "means plus function" clauses of the various claims.

The attached response contains a fairly well developed analysis of the law and may be of some use to you in the future.

The case has since been allowed with only some very minor additional changes in the claims.

EXPEDITED PROCEDURE
EXAMINING GROUP 189

NJL

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

ATTY.'S DOCKET: DUPONT=2

In re Application of:	)	Art Unit: 189
Rene DUPONT et al	)	Examiner: A. Singla
Serial No.: 07/487,060	)	Washington, D.C.
Filed: March 2, 1990	)	April 15, 1991
For: PROCESS AND APPARATUS FOR THE PRODUCTION OF CARBON MONOXIDE	)	

AMENDMENT

Honorable Commissioner of Patents and Trademarks
Washington, D.C. 20231

Sir:

In response to the final Office Action of February 14, 1991, Paper No. 7, please amend as follows:

IN THE CLAIMS

Claim 9, line 9, delete "absorptions" and insert therefor --absorption--;

line 16, change "gas" to --waste gas--; and insert --from-- after "downstream".

REMARKS

The final Office Action of February 14, 1991, and the references relied upon therein have been carefully studied. The application contains claims 9-26, all of which have been rejected, but these claims define novel and unobvious subject matter under Sections 102 and 103, warranting their allowance. Favorable reconsideration, entry of the present amendment and allowance are respectfully urged.

The amendments presented above to claim 9 are merely for purposes of clarification and do not present any new issues. Accordingly, it is requested that such amendments be entered at least for purposes of appeal.

At the bottom of page 6 of the preceding response, applicants pointed out that a certified copy of their priority application had previously been filed in this case, but had not been acknowledged as received. It was requested that the file be checked to determine if the certified priority document filed under Section 119 had been received. However, Paper No. 7 is silent as to this point. **Applicants again respectfully request the PTO to acknowledge receipt of applicants' papers filed under Section 119.**

In the second paragraph on page 2 of the final Action, the examiner states:

> The rejection of claims 9-19 and claim 26 is maintained for the reasons stated in Paper No. 5.

This statement of the rejection is quite unclear, as claims 9-19 and 26 were not previously in the application, and is therefore not seen how the rejection of these claims could be "maintained". Applicants interpret this statement to mean that claims 9-19 and 26 have been rejected for the same reasons as claims 5-8 had previously been rejected, namely as anticipated under Section 102(b) by Fuderer. The rejection is respectfully traversed.

Applicants' arguments at pages 7 and 8 of the preceding response are respectfully repeated by reference, as such rejections have not been answered or rebutted by the examiner as required by MPEP Sections 706.07 and 707.07(f). All the examiner has done (third paragraph on page 2 of the final Action) is state that the claims are directed to an apparatus and that "utilization of the apparatus for a specific use is

construed as intended use of an apparatus and does not lend patentable moment to the claim", by which applicants understand the examiner to be taking the position that the "function" portions of the "means plus function" clauses may be totally ignored by the examiner. With the greatest respect, the examiner is wrong as a matter of law!

The examiner's attention is first invited to Ex parte Seiler et al, 215 USPQ 742, 743 (PTOBA 1982). The claim in question included the following recitation:

> a pressurized buffer vessel safety means at the rear of said cylinder for providing a barrier medium which is in continuous contact with said piston for balancing the pressure of the piston and cylinder unit.

In reversing the rejection, the Board stated:

> The pressurized buffer vessel safety means..., is not found in nor suggested by the [reference] disclosure. The meager disclosure of [the reference] with respect to the lubrication box 102, upon which the examiner relies, provides no suggestion that **it would function as a pressurized buffer vessel safety means.** Albeit, with certain construction assumptions the lubrication box 102 might possibly function as a safety buffer, the mere fact that certain things may result from a given set of circumstances is not sufficient. In re Oelrich, 212 USPQ 323 (CCPA 1982). [emphasis added]

With regard to the cited Oelrich case, the Court stated at page 326:

> In this case... claim 1 does not merely recite a newly discovered function of an old device. In re Chandler... 117 USPQ 361 (1958), a case not cited by either party to this appeal, is most pertinent to the instant controversy.
>
> The claim in Chandler..., drawn to an automatic control for a jet engine, included a "means responsive to said movement..., *so that* said aircraft is propelled at a definite, selected speed... ." (emphasis added [by the Oelrich Court]). In refuting

> the examiner's argument that the words beginning "so that" were merely functional, and thus did not distinguish the device from that claimed in [the reference], this Court stated:
>
> *** The expression beginning with "so that" is not merely functional, but constitutes a part of the definition of the "means responsive to said movement." Thus, that means is defined as being responsive to the movement of the engine in such a way that the aircraft will be propelled at a definite speed in the manner specified. Such a definition conforms to the provision of 35 USC 112 that an element in a claim for a combination "may be expressed as a means or step for performing a specified function without the recital of structure, material or acts in support thereof."
>
> Likewise, the words after "means for generating a *** carrier frequency" in the claim on appeal constitutes a limiting definition of the means. The PTO does not contend that this limitation, a carrier frequency which is "less than the minimum system resonant frequency," is expressly disclosed in the [prior art] patent. Neither, however, is this limitation inherent therein.

The Oelrich Court then quoted from Hansgirg v. Kammer, 40 USPQ 665, 667 as follows:

> Inherency, however, may not be established by probabilities or possibilities. The mere fact that a certain thing *may* result from a given set of circumstances is not sufficient... .

The Oelrich Court then continued:

> The relationship between the carrier frequency and the system critical frequency - the former below the latter (and expressly made a claim limitation by use of "means" plus function language) - cannot be said to

> be "the natural result flowing from the operation as taught". The [reference] instructs that the device is "adapted to receive a carrier frequency substantially in excess of the particular system critical or resonant frequency *** ." Given this expressed teaching, a "means for generating a *** carrier frequency *** less than the minimum system resonant frequency" is not inevitably present.
>
> The decision of the Board is *reversed*. (emphasis by Oelrich Court)

The law does not permit any examiner to merely ignore the recitations in an applicant's claims because they are cast in "means plus function" language as permitted by the last paragraph of Section 112. A device which catalytically cracks methanol to produce a synthesis gas of hydrogen and carbon monoxide (as claimed) is not the same as a steam reformer or coal gasification unit which converts a hydrocarbon feed system to hydrogen, carbon dioxide and carbon monoxide as in Fuderer. Moreover, Fuderer does not have a washing means, let alone one for substantially eliminating from any synthesis gas (none is made in Fuderer) the heaviest components thereof. Fuderer does not show any adsorption means downstream the washing means and certainly not one for eliminating synthesis gas residual heaviest components and discharging therefrom a substantially first dual components hydrogen/carbon monoxide effluent gas as called for in applicants' claim 9.

Moreover, Fuderer does not show a permeation means and certainly not one for producing a purified carbon monoxide-containing product stream, as well as a waste stream containing hydrogen as called for in applicants' claim 9. Furthermore, Fuderer does not show means for recycling a portion of the waste gas stream to a location downstream from a cracking means, also as called for in applicants' claim 9. Indeed, of the five devices called for in applicants' claim 9, Fuderer does not show a single one, insofar as can be seen. With the greatest respect, the examiner is challenged to point out where in the

Fuderer disclosure each of these devices is to be found in the sequence called for in claim 9.

Attention is further invited to In re Mott, 194 USPQ 305, 307, where again the issue was a prior art rejection of claims using "means plus function" language wherein the reference showed a means without the recited function. Claims 28 and 29 were rejected alternatively under Sections 102 and 103. In reversing the rejection, the Court stated:

> We cannot agree with the Board that the claims "merely recite a 'means'". They recite a means plus a function which is not to be found in [the reference]. They therefore do not read on that reference and are not anticipated thereby.

Also see In re Glass, 176 USPQ 529 CCPA 1973. From the decision at page 531:

> We disagree with the Board's decision relative to claim 30 whether it be construed under Section 102 or Section 103. In particular, we cannot agree that the spinnerete and associated charging means of [the reference] are the equivalent of the claimed element "*** means for forming a plurality of elongated fibers by condensing fibrous crystals from a vapor stage of fiber-producing material ***."

And from page 532:

> We reverse the Board's decision as to claim 35. An element in claim 35 is "means for withdrawing the fibers from the growing zone when the value of the electrostatic charge reaches a predetermined level."... . [The reference] possesses no similar element nor is there any basis to conclude that the electrostatic charge used should be related to the rate of withdrawal of the sliver.

Again and again the authorities reverse rejections based on prior art which does not show or make obvious the means plus function claimed.

Lastly, the examiner's attention is invited to Ex parte Conner, 215 USPQ 384 (PTOBA 1981) which is one of many cases which confirm the concept that function may not be ignored even if not recited as a means clause. In this particular case, the rejected claim 1 called for a composition "adapted for application to the human skin". In reversing the prior art rejections, the Board stated:

> The characterization in the claims that the compositions are "adapted for application to the human skin" imposes a limitation in the claims which cannot be ignored in considering the patentability of the claims.

There is simply no justification for ignoring function, and this is all the more so when the claims are drafted in the way the statute (Section 112) says is to be given the effect of structure, i.e. as "means plus function". The Fuderer patent is not even close to applicants' invention and it does not have the various means necessary to enable it to function as claimed even if such functioning were obvious (which it is not).

The rejection is unjustified and it is respectfully requested that it be withdrawn.

Claims 20-25 have been rejected as obvious under Section 103 from Fuderer in view of Schurmans et al. The rejection is respectfully traversed.

As regards Fuderer, the arguments presented in the last response (again respectfully repeated by reference) fully apply in that Fuderer unequivocally destroys the carbon monoxide present in the effluent gas (column 3, lines 49-57, and column 9, lines 18-22). Once that is done, there is no way one can carry out applicants' process. Fuderer is antithetical to both the present invention and to Schurmans, and in that latter regard could not possibly be obviously combined with Schurmans.

Schurmans discloses a process of water reforming a mixture of methanol and water by super-heating the mixture and carrying out the reforming process under adiabatic conditions

with a view to obtain synthesis gas with a high hydrogen content for mass production of hydrogen (column 2, lines 39-40).

As admitted by the examiner, Schurmans fails to teach not only the method but also the apparatus as per the instant claims and, for the reasons set forth, an artificial combination of the teachings of Schurmans and of Fuderer completely fails to suggest the claimed invention, more particularly when considering the low monoxide content of the produced gas mixture in Schurmans (see column 6, line 17 and column 7, line 24).

As briefly noted above, Schurmans and Fuderer are incompatible. To follow the teachings of one would destroy the other for its intended function. Such a combination could not possibly have been obvious.

Withdrawal of the rejection is in order and is respectfully requested.

Favorable reconsideration, entry of the present amendment and allowance are earnestly solicited.

Respectfully submitted,

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