

The opinion in support of the decision being entered today was not written for publication and is not binding precedent of the Board.

**UNITED STATES PATENT AND TRADEMARK OFFICE**

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

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Ex parte Osca Inc., BJ Services Company,  
and J. Dean Lechtenberger

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Appeal No. 2005-1483  
Application No. 90/005,947 and Application No. 90/005,743

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HEARD: August 9, 2005

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Before FRANKFORT, PATE, and CRAWFORD, Administrative Patent Judges.  
PATE, Administrative Patent Judge.

**DECISION ON APPEAL**

This is an appeal from the final rejection of claims 4-11, 13 and 14 in a merged re-examination of U.S. Patent No. 5,865,251. The patentability of claims 1-3 and 12 have been confirmed. These are the only claims in the merged reexamination.

The claimed subject matter is directed to a gravel pack and isolation assembly, wherein an isolation valve comprising a movable sleeve is positioned to the interior of an oil well production screen. After the production zone of the oil well has been gravel packed, the isolation valve is moved to a position permitting fluid passages between the exterior of the screen assembly and the interior of the production tubing. Further details of

the claimed subject matter may be ascertained with reference to claims 4-11, 13 and 14 appended to appellants' brief.

The references of record relied upon by the examiner as evidence of anticipation and obviousness are:

Rebardi et al. (Rebardi) 4,858,690 Aug. 22, 1989

Restarick, H.L. "Mechanical Fluid Loss Control Systems Used During Sand Control Operations", SPE 23741, March 1992, pp. 455-465.

### **The Rejections**

Claims 13 and 14, added during re-examination, stand rejected under 35 U.S.C. §112, second paragraph.

Claims 4-6, 10 and 11 stand rejected under 35 U.S.C. § 102(b) as anticipated by article 23741 from the Society of Petroleum Engineers by Restarick.

Claims 4-11 stand rejected under 35 U.S.C. 103(a) as unpatentable over Rebardi in view of the SPE 23741 reference.

Claims 7-9 stand rejected under 35 U.S.C. § 103 as unpatentable over the SPE article in view of Rebardi.

For the details of these rejections reference is made to the examiner's answer. For appellants' response with respect to the rejections reference is made to the appeal brief and the reply brief.

### **Opinion**

Turning first to the rejection under section 112, we will affirm this rejection. We are in agreement with the examiner that (answer, page 4) the recitation in question is misdescriptive of appellants' disclosed device. We agree that due to the space between the isolation pipe 16 and the screen 12, fluid could flow radially inwardly across the screen and radially outwardly across the screen unhindered by the position of the isolation valve 20, i.e., when the valve is closed. We are furthermore in agreement that the examiner's proposed correction would remedy this problem.

Turning to the rejection under section 102, we note that appellants' first argument is based on claim construction and the examiner's alleged misconstruction of one claim limitation. The PTO applies to the verbiage of the proposed claims the broadest reasonable meaning of the words in their ordinary usage as they would be understood by one of ordinary skill in the art, taking into account whatever enlightenment by way of definitions or otherwise that may be afforded by the written description contained in the applicants' specification. *In re Morris*, 127 F.3d 1048, 1053-54, 44 USPQ2d 1023, 1027(Fed. Cir. 1997). This is the standard for claim interpretation in both original examination and re-examination. See *In re Yamamoto*, 740 F.2d 1569, 1571, 222 USPQ 934, 936 (Fed. Cir. 1984).

The Federal Circuit recently restated: "It is a 'bedrock principle' of patent law that 'the claims of a patent define the invention to which the patentee is entitled the right to exclude.'" *Phillips v. AWH Corp.*, 415 F.3d 1303, 1312, 75 USPQ 2d 1321, 1325, (Fed. Cir. 2005) (en banc) (quoting *Innova/Pure Water, Inc. v. Safari Water Filtration Sys., Inc.*, 381 F.3d 1111, 1115, 72 USPQ 2d 1001, 1004, (Fed. Cir. 2004)). "The inquiry into how a person of ordinary skill in the art understands a claim term provides an objective baseline from which to begin claim interpretation. "*Id.*" Importantly, the person of ordinary skill in the art is deemed to read the claim term not only in the context of the particular claim in which the disputed term appears, but in the context of the entire patent, including the specification." *Id.*

The argued limitation is from independent claim 4 and states:

an isolation valve connected to the inner bore at said gravel packing assembly adjacent said production screen, said isolation valve controllable between an open position *permitting fluid flow through said screen* and a closed position *inhibiting fluid flow through said screen* (emphasis supplied)....

The crux of the dispute is that the examiner maintains that the doubly occurring phrase "flow through said screen" encompasses both radial flow through the reticulated portion of the screen when the screen is performing its separating function and axial flow through the screen in the longitudinal direction of the well workover and production string. The examiner believes this is the broadest reasonable interpretation of the claim language. Appellants maintain that the limitation must be construed to cover only radial flow through

the screen's filtering openings. Similar to many dispute with respect to claim construction, the devil is in the prepositions—in this instance “through.”

Following the guidance provided by our reviewing court, we look to appellants' specification for evidence to resolve this dispute. In the specification we do not find the specific claim language. Instead, we find the language:

the sleeve in the open position permitting fluid passage between the exterior of the screen and the interior of the isolation pipe, ... the sleeve in the closed position preventing fluid passage between the exterior of the screen and the interior of the isolation pipe. Col. 1, lines 62-67.

Clearly the reference to the “exterior of the screen” restricts the cited language to flow radially through the filtering apertures of the screen. This language is also found at col. 3, lines 42-45; col. 3, lines 63-67; col. 4, lines 8, 9; col. 4, lines 14-16. This language also is found in Claim 1, a claim not under consideration here. Based on the dissimilarity of the claim 4 language and the language from the specification that clearly refers to the exterior of the screen, and which is clearly directed to radial flow, it seems reasonable to assume that the language at issue from claim 4 is directed to a different and broader pattern of flow. This appears to be the approach of the examiner in giving the claim its broadest reasonable interpretation.

We further point out, that although claim differentiation is a less reliable guide for claim language interpretation, the dissimilarity in language between the pattern of flow in claim 1 and claim 4 raises the presumption that a different, presumably broader, or more

encompassing flow is the intention of the language of claim 4. This factor also is evidence that the examiner's reading of the claim, while broader, is reasonable.

The appellants have not provided an argument based on the specification of their patent. Instead, appellants provide a list of patents that have used terminology similar to flow through the screen to mean radial flow through the filtering apertures. This is not convincing for several reasons.

First as noted above, the language from the claim is properly construed on the basis of the disclosure of the entire specification. Without reference to these specifications in their entirety, specific examples of the same phrases taken out of context from other patents are of little value. This, of course, applies to the counterexamples cited by the examiner as well.

Secondly, the court has cautioned that extrinsic evidence is less significant than the intrinsic record in establishing the meaning of claim terms. [W]hile extrinsic evidence "can shed useful light on the relevant art," we have explained that it is "less significant than the intrinsic record in determining 'the legally operative meaning of claim language.'" *Phillips v. AWH Corp.*, 415 F.3d 1303, 1312, 75 USPQ2d 1321, 1330 (Fed. Cir. 2005) (en banc).

Finally, in view of the counterexamples cited by the examiner, it appears that the extrinsic evidence cited by the appellant in the form of quotations from other patents is inconclusive, if we were to entitle it to any weight. Considering all the forgoing, it is our

conclusion of law that the examiner's construction of the argued limitation is the correct construction of the claim limitation at issue.

Under the sixth paragraph of section 112, we are required to interpret means-plus-function limitations in light of appellants' specification. *In re Donaldson Co.*, 16 F.3d 1189, 119-95, 29 USPQ2d 1845, 1850 (Fed. Cir. 1994)(en banc). Accordingly, we construe the "means for controlling the position of said isolation valve..." from the last portion of claim 4 as the shifting tool 43 on the lower portion of the tool and its equivalents.

The following are the examiner's findings of fact regarding the SPE 23741 article that we adopt as our own:

On page 457 and in Figure 8, a system is disclosed including a screen (Figure 8) which when using a washpipe (page 457, second column, lines 32-40) for a circulating path allows the lower return ports located at the bottom of the screen or inside the telltale to be used during gravel packing. At the conclusion of the gravel packing, these lower return ports are then closed with a shifting tool as the washpipe is pulled out of the hole. Subsequently, the sliding valve in the screen is opened using wireline to put the well on production.

As stated on page 456 of this reference, washpipes are used with gravel pack assemblies to provide the option of circulating a gravel pack. These gravel pack assemblies are cross-overs to permit the deposition of the gravel outside the screen. More specifically, as for claim 4, the SPE reference discloses and shows:

"a gravel packing assembly having an inner bore and an exterior surface, said gravel packing assembly having at least one aperture from said inner bore to said exterior surface" (see the tubular member having apertures associated with the sliding sleeve in Figure 8,' and page 457, column 2: lines 27-46),

"a production screen attached to said exterior surface covering said at least one aperture" (see the "all welded screen" covering the apertures and sliding sleeve in Figure 8),'

"an isolation valve connected to the inner bore at said gravel packing assembly adjacent said production screen, said isolation valve controllable between an open position permitting fluid flow through said screen and a closed position inhibiting fluid flow through said screen" (see page 457, column 2, lines 35-40 - it is noted that since claim 4 is silent regarding the direction of fluid flow and does not require that the isolation valve controls fluid flow through the "at least one aperture", the recited "isolation valve" does not distinguish from the "lower return ports located at the bottom of the screen or inside the telltale" that are "closed with a shifting tool as the washpipe is pulled out of the hole" disclosed on page 457, column 2, lines 35- 40 of the SPE reference,')

"a crossover assembly in selective fluid communication with the inner bore of said gravel packing assembly and the annulus between said gravel packing assembly and said well bore, said crossover assembly releasably connected to said gravel packing assembly (see page 456 of this reference which discloses washpipes are used with gravel pack assemblies to provide the option of circulating a gravel pack, these gravel pack assemblies are cross-overs to permit the deposition of the gravel outside the screen as further disclosed in page 457, column 2, lines 32-42),.

and

"means for controlling the position of said isolation valve, said means being attached to said crossover assembly" (see page 457, column 2, lines 35-40 where it discloses that the lower return ports located at the bottom of the screen or inside the telltale are closed with a shifting tool as the washpipe is pulled out of the hole).

The Restarick paper discusses various methods and tool strings used to control fluid loss during a gravel packing operation. A problem encountered in marginal reservoirs where sand control is desirable is that the producing formation has insufficient bottomhole pressure to support a column of fluid in a well bore. Thus, it is desirable to isolate the

formation from the well bore pressure while still permitting the gravel packing of the formation for sand control.

The select flow screen system on page 457 uses a production screen with a non-perforated base pipe. The screen has a length of production tubing trapped inside and sealed at both ends so that no fluid flow is permitted through the apertures of the screen during the gravel packing operation. Note that the inner production string is later perforated or a sliding sleeve is opened using a wireline to put the well on production.

In our view, the structure described in the Select Flow Screen paragraph of the SPE 23741 article (page 457) anticipates claim 4. It is our further finding that contrary to appellants' arguments the examiner is not relying on the ports mentioned in the tell-tale of the SPE article but has expressly relied on the return ports located at the bottom of the production screen. See Answer at page 6. This appears to be the only issue appellants take with respect to the examiner's findings of fact. The balance of appellants' arguments are directed to the examiner's conclusions of law, i.e., the examiner's interpretation of claim scope we have discussed above. Since the only issue that appellants argue with respect to the factual findings is not credited, we are in agreement with the examiner that the Restarick paper anticipates appellants' claim 4 and the claims dependent thereon, viz., claims 5, 6, 10 and 11. The rejection under section 102 is sustained.

Turning to a consideration of the obviousness rejections based on the combined teachings of the Rebaridi and the Restarick paper, we will sustain the rejection of claims

4-11 and the separate rejection of claims 7-9, also. Rebaradi discloses a gravel packing assembly and method essentially as claimed except that Rebaradi does not disclose an isolation valve that is operable by a means connected to the crossover assembly. As noted above, we have construed this means as a shifting tool. As further noted above, Restarick teaches the use of a shifting tool for controlling the position of an isolation valve. Restarick additionally teaches that an isolation valve that closes the gravel-packed formation off from the well bore is desirable to prevent fluid loss and formation damage and excessive cost. Thus, it would have been obvious at the time the invention was made to have modified the Rebaradi gravel packing tool with an shiftable isolation valve.

We note appellants' argument that a washpipe is not required and is preferably not present in the current invention. However, a washpipe is not precluded by the claims on appeal. This argument is simply irrelevant to the examiner's rejection. With respect to the argument that Rebaradi would be impermissibly changed if modified as taught by the Restarick paper, this argument is simply an argument that Rebaradi does not anticipate appellants' claim. However, the examiner has established by a preponderance of the evidence that it would have been obvious to modify the assembly and process of Rebaradi. So, yes, Rebaradi is changed when the teachings of the Restarick paper are incorporated therein.

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

**AFFIRMED**

CHARLES E. FRANKFORT  
Administrative Patent Judge

WILLIAM F. PATE, III  
Administrative Patent Judge

MURRIEL E. CRAWFORD  
Administrative Patent Judge

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WFP/lp

Appeal No. 2005-1483  
Application No. 90/005,947

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MILWAUKEE, WI 53202 |

**Comment [jvn1]:** Type or Paste  
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APPEAL NO. 2005-1483  
APPLICATION NO. 90/005,947

**APJ PATE**  
**APJ FRANKFORT**  
**APJ CRAWFORD**

DECISION: **AFFIRMED**

PREPARED: Sep 7, 2006

OB/HD

PALM

ACTS 2

DISK (FOIA)

REPORT