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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte TIANPING HUANG

Appeal 2015-005149
Application 13/415,204
Technology Center 1700

Before CATHERINE Q. TIMM, CHRISTOPHER C. KENNEDY, and
DEBRA L. DENNETT, *Administrative Patent Judges*.

DENNETT, *Administrative Patent Judge*.

DECISION ON APPEAL¹

¹ In our Opinion below, we refer to the Specification filed March 8, 2018 (“Spec.”), the Final Action mailed July 8, 2014 (“Final Act.”), the Appeal Brief filed December 8, 2014 (“App. Br.”), the Examiner’s Answer mailed February 13, 2015 (“Ans.”), and the Reply Brief filed April 8, 2015 (“Reply Br.”).

STATEMENT OF THE CASE

Appellant appeals under 35 U.S.C. § 134 from a rejection of claims 1–16. We have jurisdiction under 35 U.S.C. § 6(b).

We affirm.

The claims are directed to methods of clay stabilization in a subterranean formation with nanoparticles. Claim 1, reproduced below with the disputed limitations emphasized, is illustrative of the claimed subject matter:

1. A method for stabilizing clays comprising:
introducing into a subterranean formation containing clays a treating fluid comprising:
a base fluid, and
an amount of a particulate additive effective to stabilize the clays, the particulate additive:
having a mean particle size of 100 nm or less, and
being selected from the group consisting of alkaline earth metal oxides, alkaline earth metal hydroxides, alkali metal oxides, alkali metal hydroxides, transition metal oxides, transition metal hydroxides, post-transition metal oxides, post-transition metal hydroxides, piezoelectric crystals, pyroelectric crystals, and mixtures thereof,
contacting the clays in the formation with the treating fluid and inhibiting the clays from expansion and/or migration by associating the particulate additive with the clays by surface forces of the particulate additive as compared with introducing an identical fluid absent the particulate additive, ***without being pore plugging***; and
in the absence of cementing.

App. Br. 24 (Claims App'x) (emphasis added).

REFERENCES

The Examiner relies on the following prior art in rejecting the claims on appeal:

Huang et al., (“Huang ’201) US 2009/0312201 A1 Dec. 17, 2009

REJECTIONS

Claims 1–16 stand rejected under 35 U.S.C. § 102(b) as anticipated by, or in the alternative, under 35 U.S.C. § 103(a) as obvious over Huang ’201.

OPINION

Appellant argues patentability of all of the claims on appeal as a group. *See* App. Br. 9. We select claim 1 as representative of the group. The remaining claims will stand or fall with claim 1. 37 C.F.R. § 41.37(c) (iv) (2014).

The Examiner rejects the claims over Huang ’201, which is one of two grandparent applications to the instant application. Final Act. 8; *see* Spec. ¶ 1. The pivotal issue in this appeal is the Examiner’s treatment of the limitations “without being pore plugging” and “in the absence of cementing.” All three independent claims of the application on appeal contain the disputed limitations. App. Br. 24, 26, and 29. The limitations raise issues of both priority and patentability.

Priority

We turn first to the issue of priority, and the limitation “in the absence of cementing,” which appears in all claims of the instant application. The

Examiner finds, and Appellant does not dispute, that “in the absence of cementing” is new matter to the instant application, causing the application’s effective filing date to be March 8, 2012.² Ans. 3; *see also* App. Br. 14. In continuation-in-part applications, priority date is determined on a claim-by-claim basis. *Lucent Techs., Inc. v. Gateway, Inc.*, 543 F.3d 710, 718 (Fed.Cir.2008). All of the appealed claims contain the “in the absence of cementing” limitation. Therefore, Huang ’201 qualifies as § 102(b) prior art to all of the claims. *See In re Chu*, 66 F.3d 292, 297 (Fed. Cir. 1995) (“Chu [continuation-in-part of Doyle patent] is entitled to the benefit of the Doyle patent filing date only if the Doyle patent discloses the subject matter *claimed* by Chu.”).

Appellant also acquiesces to the Examiner’s finding that the claim limitation “without being pore plugging” as used in claim 1 is new matter to the instant application. *Compare* Final Act. 4–5 (“the limitation is still deemed ‘new and unsupported’ by the parent case) *with* App. Br. 13 (“The Examiner *correctly* notes that the limitation ‘without being pore plugging’ in claim 1 is new to the instant application.”) (emphasis added).

The filing of a continuation-in-part application to overcome a rejection does not give rise to an irrebuttable presumption of acquiescence in the rejection. *Pennwalt Corp. v. Akzona Inc.* 740 F.2d. 1573, 1578–79 (Fed. Cir. 1984). However, here the applicant unambiguously acknowledges that the limitation “without being pore plugging” is new matter to the instant application. App. Br. 13. Appellant is thus estopped from arguing for

² Only claims to inventions that are disclosed in the manner provided by 35 U.S.C. §112 ¶ 1 in the prior-filed applications are entitled to the benefit of the filing date of the prior-filed application. 35 U.S.C. § 120 (2006).

priority to the filing date of Huang '201. *See, Litton Sys., Inc. v. Whirlpool Corp.*, 728 F.2d 1423, 1440 (Fed. Cir. 1984) (“Litton chose instead to abandon its right to review via PTO appellate procedure, and rather, acquiesced to the PTO’s requirement for a C–I–P declaration, for whatever reason. Litton is now bound to its acquiescence.”); *Pennwalt Corp.*, 740 F.2d at 1580 (“In view of Armak’s failure to show that it did not acquiesce, Armak is estopped from asserting that the grandparent application complied with the first paragraph of 35 U.S.C. § 112 in order to gain benefit of that application’s [] filing date under 35 U.S.C. § 120.”). For this additional reason, Huang '201 qualifies as § 102(b) prior art.

Anticipation or obviousness

With Huang '201 available as § 102(b) prior art, the question becomes whether the reference anticipates or renders obvious all elements of the appealed claims.

It is undisputed that in both the grandparent (Huang '201) and the instant case, Appellant added the limitation “without being pore plugging” to the claims in order to overcome the prior art. Ans. 4. In Huang '201, the Examiner rejected the limitations as new matter, Appellant deleted them from the claims, and filed the instant application as a continuation-in-part. *Id.*

The language related to pore plugging in the Specification is found in paragraphs 17 and 18:

In many cases, the ability of the treating fluids to stabilize clays may be improved by use of nano-sized particulate additives that may be much smaller than the pores and pore-throat passages within a hydrocarbon reservoir, thereby ***being non-pore plugging particles that are much less damaging to the reservoir permeability*** than the clays themselves. This smaller size

permits the nanoparticles to readily enter the formation, and then stabilize the clays in place so that both the clays and the nanoparticles remain in the formation and do not travel as far—or at least *are restrained to the point that damage to the near-wellbore region of the reservoir is minimized.*

These very small particle sizes permit the very small particulate additives to *easily flow through the pores of the subterranean formation and thus these particulate additives are non-pore plugging.* Further, it has been discovered that the associations or connections or agglomerations or agglomerate composites of the particulate additives (*e.g.* nanoparticles) with the fines are *non-pore plugging* as well. That is, the fixation of the fines according to the methods described herein *is without being pore plugging.*

Spec. ¶¶ 17–18.

One of ordinary skill in the art at the time of the invention would have viewed the Specification as teaching that “without being pore-plugging” (used interchangeably by the Appellant with “non-pore plugging”) means that nano-sized particulate additives much smaller than the pores within a hydrocarbon reservoir, alone or associated or agglomerated with fines, allow fluid to flow through the pores of the subterranean formation and are less damaging to the reservoir permeability than the fines themselves. Because some damage may occur to the reservoir *permeability* as a result of the nano-sized particulate additives, alone or associated or agglomerated with fines, some minimal obstruction of pores may occur when the additives or agglomerates are said to be “non-pore plugging.”

Appellant contends that “without being pore plugging” cannot be both unsupported by the parent case *and* taught/suggested by Huang ’201. App. Br. 21. Appellant argues that, if Huang ’201 lacked written description for

the limitation “without being pore plugging” during its prosecution (the application is now abandoned), then the same publication could not anticipate or render obvious the claims of the instant invention. App. Br. 21–22 (“How can the same lack of written description support for claim language in a parent application be subsequently found to explicitly teach or render obvious the same language in the claims of a CIP application?”).

We need not resolve any purported issue of inconsistency. Although Appellant presumes the Examiner’s finding of new matter in the grandparent application was correct, we do not make the same presumption. Rather, we consider the question of inherency and obviousness in the context of the anticipation and obviousness rejections before us. There is no issue of lack of written descriptive support before us. Appellant’s acquiescence to the entitlement of the grandparent filing date removes that issue from our review.

Appellant contends that claim 1 is not anticipated by Huang ’201. App. Br. 7–8.

The Examiner notes that the same compositions and methods are used in Huang ’201 as in the instant application. Ans. 9. “It is elementary that the mere recitation of a newly discovered function or property, inherently possessed by things in the prior art, does not cause a claim drawn to those things to distinguish over the prior art.” *In re Swinehart*, 439 F.2d 210, 213 (CCPA 1971).

In Huang ’201, the entirety of the disclosure regarding pore plugging is almost identical to paragraph 17 of the Specification:

In many cases, fines fixing ability of the treating fluids may be improved by use of nano-sized particulate additives that may be much smaller than the pores and pore-throat passages within a

hydrocarbon reservoir, thereby *being non-pore plugging particles that are less damaging to the reservoir permeability* than the fines themselves. This smaller size permits the nanoparticles to readily enter the formation, and then bind up or fix the fines in place so that both the fines and the nanoparticles remain in the formation and do not travel as far—or at least are restrained to the point that damage to the near-wellbore region of the reservoir is minimized.

Huang '201 ¶ 9 (emphasis added). Huang '201 does not include paragraph 18 of the Specification given above, which conveys that not only are nano-size particulate additives non-pore plugging, but specifies that “associations or connections or agglomerations or agglomerate composites of the particulate additives with fines” are non-pore plugging as well. *See* Spec. ¶ 18.

Huang '201 teaches mixing treating fluids with nano-sized particulate additives. *See, e.g.*, Huang '201 ¶ 9. The properties of this composition, which is the same as disclosed in the Specification, are inseparable from the composition itself, and because Huang '201 teaches the composition, the properties are necessarily present in the reference. *See In re Best*, 562 F.2d 1252, 1256 (CCPA 1977). Therefore, Appellant has not persuaded us of reversible error in the Examiner's rejection of claim 1 as anticipated by Huang '201.

In most cases when matter added through amendment to a continuation-in-part application is deemed inherent to the disclosure in the parent application, that matter is entitled to the filing date of the parent application. *Litton*, 728 F.2d at 1438. But where, as here, Appellant has filed a continuation-in-part application in response to a finding of new matter and have stated on the record that the matter lacks written descriptive

support in the parent case, Appellant has acquiesced and estoppel applies with regard to the priority date.

The instant application claims methods that do not differ from the methods—and compositions—disclosed in Huang '201. *See, e.g.,* Huang '201 ¶¶ 7–10. As a consequence, it is reasonable to presume that “without pore plugging” and “in the absence of cementing”³ are inherent properties of the methods claimed. On the other hand, “a prior art reference without express reference to a claim limitation may nonetheless anticipate by inherency.” *In re Omeprazole Patent Litigation*, 483 F.3d 1364, 1373 (Fed. Cir. 2007).

Under the facts of the present record, Huang '201 qualifies as prior art and anticipates the method of claim 1. Claims 2–16 stand or fall with claim 1, therefore also are rejected 35 U.S.C. § 102(b) as anticipated by Huang '201. We also affirm the rejection of these claims under 35 U.S.C. § 103(a) as obvious over Huang '201. *See In re McDaniel*, 293 F.3d 1379, 1385 (Fed. Cir. 2002) (“[A]nticipation is the epitome of obviousness.”).

DECISION

For the above reasons, the Examiner’s rejection of claims 1–16 is
AFFIRMED.

³ The Examiner finds that Huang '201 does not use cement anywhere in the reference, thus the reference meets the “in the absence of cementing” limitation of the claims. Final Act. 3. Appellant has not identified reversible error in this finding. Huang '201 is sufficient to meet all the claim limitations in an anticipatory manner since the same composition is used therein.

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No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(1) (iv) (2009).

AFFIRMED