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EXAMINER

AHUJA, ANURADHA

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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte THOMAS JASON PISKLAK and
LANCE EVERETT BROTHERS

Appeal 2017-000458
Application 14/048,463
Technology Center 3600

Before: BRETT C. MARTIN, LYNNE H. BROWNE, and
BRENT M. DOUGAL, *Administrative Patent Judges*.

DOUGAL, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

Appellants appeal under 35 U.S.C. § 134 from a final rejection of claims 1, 3–12, and 17–19. We have jurisdiction under 35 U.S.C. § 6(b).

We affirm-in-part.

CLAIMED SUBJECT MATTER

The claims are directed to a method of cementing and a cementing system. Claims 1 and 17, reproduced below, are the sole independent claims:

1. A method of cementing in a subterranean formation comprising:

storing a set-delayed cement composition comprising water, a pozzolan, hydrated lime, and a set retarder for at least about one day;

adding a zeolite activator to the set-delayed cement composition after the step of storing to activate the set-delayed cement composition;

introducing the set-delayed cement composition into a subterranean formation; and

allowing the set-delayed cement composition to set in the subterranean formation.

17. A cementing system comprising:

a set-delayed cement composition comprising water, a pozzolan, hydrated lime, and a set retarder;

a zeolite activator for activation of the set-delayed cement composition;

mixing equipment for mixing the set-delayed cement composition and the zeolite activator to form an activated cement composition; and

pumping equipment for delivering the activated cement composition into a well bore.

REFERENCES

The prior art relied upon by the Examiner in rejecting the claims on appeal is:

Baker	US 4,462,837	July 31, 1984
Roddy '475	US 2007/0056475 A1	Mar. 15, 2007
Roddy '043	US 2010/0044043 A1	Feb. 25, 2010
James	US 2011/0290493 A1	Dec. 1, 2011

REJECTIONS

Claims 1 and 3–12 are rejected under 35 U.S.C. § 112(b) as being indefinite.

Claims 1, 3, 4, 7–9, 12, 17, and 18 are rejected under 35 U.S.C. § 103 as being unpatentable over Roddy '043.

Claims 5 and 19 are rejected under 35 U.S.C. § 103 as being unpatentable over Roddy '043 and Roddy '475.

Claim 6 is rejected under 35 U.S.C. § 103 as being unpatentable over Roddy '043 and James.

Claim 10 is rejected under 35 U.S.C. § 103 as being unpatentable over Roddy '043 and Baker.

OPINION

35 U.S.C. § 112(b)

The Examiner determines that it is unclear whether claim 1's step of "introducing the set-delayed cement composition into a subterranean formation" "refers to the set-delayed cement composition before or after adding the zeolite activator." Final Act. 2.

Appellants counter that the Examiner's rejection is not based on clarity, but rather the Examiner's reasoning is based on claim breadth i.e., "to encompass multiple alternatives." Appeal Br. 8. We agree. Claim 1 uses the term "set-delayed cement composition" consistently throughout the claim and does not specify whether the "zeolite activator" is also "introduce[ed] . . . into the subterranean formation" with the "set-delayed cement composition." Thus, the claim can cover both "introducing the set-delayed cement composition into a subterranean formation" before "adding a

zeolite activator to the set-delayed cement composition after the step of storing to activate the set-delayed cement composition” or after the step of “adding.” This is a question of timing and claim breadth, not indefiniteness of the term “set-delayed cement composition.” For this reason we do not sustain the 35 U.S.C. § 112(b) rejection.

35 U.S.C. § 103 – Claim 1

The Examiner finds that Roddy ’043 teaches all of the features of claim 1, except that it “fails to explicitly disclose ‘storing’ the set-delayed cement composition ‘for at least about one day’ and adding the zeolite ‘after the step of storing’ as instantly claimed.” Final Act. 3. The Examiner further finds that “Roddy [’043] fails to explicitly disclose the zeolite as an ‘activator’ to ‘activate the set-delayed cement composition,’” as claimed. *Id.* However, the Examiner determines that Roddy ’043 “teaches zeolite as an additive” that “will perform as an activator” because it has the same composition as that disclosed by Appellants. *Id.*

Because the Examiner finds that Roddy ’043 teaches the claimed composition “wherein additives [such as zeolite] can be included in this composition as desired,” the Examiner determines that “it would have been obvious to one of ordinary skill in the art to store the cement composition and add zeolite/additives to the composition when appropriate based on the desired treatment in order to yield predictable results.” *Id.*

Roddy ’043 teaches that to reduce cost of a sealant composition, the amount of Portland cement can be reduced or replaced by the presence of other components. Roddy ’043 ¶ 8. Zeolite is listed as one of these components. *Id.* Though zeolite is included in a number of embodiments,

the function of zeolite, other than to replace Portland cement, is not discussed. *See e.g., id.* at ¶ 30. Roddy '043 also discusses sealant compositions with a set retarding additive which is “an additive that retards the setting of the sealant compositions.” *Id.* at ¶ 31. Roddy '043 states that “at a desired time for use, the extended sealant composition may be activated, for example, by addition of a cement set accelerator.” *Id.* at ¶ 42. A number of examples of cement set accelerators are given, notably however, zeolite is not included as a set accelerator. *See e.g., id.*

Appellants admit that Roddy '043 teaches using zeolite as an optional additive for sealant compositions, however, they argue that “[a]t most, Roddy '043 discloses that the zeolite may be included when the whole sealant composition is blended all at once.” Appeal Br. 13. Appellants argue that “Roddy '043 does not teach or suggest the use [of] a zeolite activator” or “any step of storing and then later adding a zeolite activator.” *Id.* at 14.

The Examiner does not identify any teaching of Roddy '043 that would suggest adding zeolite after “storing a set-delayed cement composition comprising water, a pozzolan, hydrated lime, and a set retarder for at least about one day,” as required by claim 1. Further, though the Examiner found that zeolite will inherently act as an activator (Final Act. 3–4), Roddy '043 does not teach its use as an activator. Thus, nothing in Roddy '043 suggests “adding a zeolite activator to the set-delayed cement composition after the step of storing to activate the set-delayed cement composition,” as required by claim 1. Therefore, the Examiner’s determination that Roddy '043 suggests that it would be appropriate to add zeolite at a time other than the initial mixing and formation of the cement

composition is not supported by a preponderance of evidence. For this reason we do not sustain the 35 U.S.C. § 103 rejection of independent claim 1.

35 U.S.C. § 103 – Claims 3–10 & 12

Claims 3–10 and 12 depend from claim 1. Though the Examiner relies on the additional references of Roddy '475, James, and Baker for the rejection of some of these dependent claims, all of the 35 U.S.C. § 103 rejections of these claims depend on the unsupported findings and determinations of claim 1 discussed above. Thus, we do not sustain the 35 U.S.C. § 103 rejections of claims 3–10 and 12 for the same reasons.

35 U.S.C. § 103 – Claims 17 & 18

Claims 18 and 19 depend from independent claim 17. Appellants argue the rejection of claims 17 and 18 together. We select claim 17 as representative. *See* 37 C.F.R. § 41.37(c)(1)(iv).

The Examiner determines that Roddy '043 teaches “a set-delayed cement composition comprising water . . . , a pozzolan . . . , hydrated lime . . . , a set retarder . . . , and a zeolite.” Final Act. 6. The Examiner determines that Roddy '043's “zeolite will perform as an activator” because “Roddy ['043] teaches the same cement composition as . . . Applicants.” *Id.* (citing Roddy'043 ¶ 30 and Spec. ¶ 30).

The Examiner further finds that Roddy '043 “teaches combining components of the composition and forming a pumpable composition.” *Id.* The Examiner determines that though Roddy '043 does not explicitly disclose mixing equipment and pumping equipment, “it would have been

obvious to one of ordinary skill in the art to provide mixing equipment to combine components and pumping equipment to deliver a pumpable composition.” *Id.* at 6–7.

Appellants admit that Roddy ’043 teaches a sealant composition including pozzolan, lime, water, and zeolite. Appeal Br. 13, 17. Appellants further admit that Roddy ’043 teaches extended, or set-delayed, sealant compositions. *Id.* at 14, 18. However, Appellants argue that Roddy ’043 does not teach “set-delayed cement compositions and a separate zeolite activator for activation of the set-delayed cement composition.” *Id.* at 17. Appellants argue that “[a]t most, Roddy ’043 discloses that the zeolite may be included when the whole sealant composition is blended all at once.” *Id.*

However, nothing in claim 17 requires that the zeolite be separate from the rest of the set-delayed cement composition, or that the activation process cannot start once the whole sealant composition is blended. Thus, we are not informed of error in the Examiner’s rejection.

Appellants argue that Roddy ’043 does not teach or suggest “a zeolite activator.” *Id.* at 17–18. As noted above, the Examiner does not find that Roddy ’043 explicitly teaches a zeolite activator, but rather finds that the zeolite taught by Roddy ’043 will inherently “perform as an activator.” Final Act. 6. Appellants do not contest this finding of inherency. Thus, we are not informed of error in the Examiner’s rejection.

Appellants also argue that “[t]he Examiner relies on an improper obvious to try rationale.” Appeal Br. 18. Appellants identify a number of reasons why they assert it is not obvious to try zeolite as an activator. *Id.* at 18–20. However, the rejection of claim 17 is not based on the proposition that it would have been obvious to try zeolite as an activator. As noted

above, the Examiner found that zeolite would inherently “perform as an activator” which finding Appellants do not contest. Arguments presented in an appeal must address the grounds of rejection set forth by the Examiner. 37 C.F.R. § 41.37(c)(1)(iv). Thus, Appellants arguments addressed to grounds not present in the rejection do not inform us of error in the Examiner’s rejection.

35 U.S.C. § 103 – Claim 19

Appellants argue that claim 19 is allowable because Roddy ’475 does not overcome the deficiencies identified in Roddy ’043 with respect to claim 17. Appeal Br. 22–23. Thus, we are not informed of error in the Examiner’s rejection of claim 19, for the reasons previously discussed with respect to claim 17.

DECISION

The Examiner’s 35 U.S.C. § 112(b) rejection of claims 1 and 3–12 is reversed.

The Examiner’s 35 U.S.C. § 103 rejections of claims 1, 3–10, and 12 are reversed.

The Examiner’s 35 U.S.C. § 103 rejections of claims 17–19 are affirmed.

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

AFFIRMED-IN-PART