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14/929,725	11/02/2015	Daniel Debrouse	A-00035-001	5661
25179	7590	11/21/2019	EXAMINER	
A PATENT LAWYER, LLC R WILLIAM GRAHAM 8586 Eagle Ridge Springboro, OH 45066			NGUYEN, COLETTE B	
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UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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*Ex parte* DANIEL DEBROUSE and TERRENCE ROCKWELL

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Appeal 2019-000409  
Application 14/929,725  
Technology Center 1700

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Before CATHERINE Q. TIMM, BEVERLY A. FRANKLIN, and  
LILAN REN, *Administrative Patent Judges*.

REN, *Administrative Patent Judge*.

DECISION ON APPEAL<sup>1</sup>

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<sup>1</sup> The record on appeal includes the Specification of November 2, 2015 as well as the subsequent amendments (“Spec.”), the Examiner’s Final Action of September 28, 2017 (“Final Act.”), Appeal Brief of July 27, 2018 (“Appeal Br.”), the Examiner’s Answer of September 18, 2018 (“Ans.”), and the Reply Brief of October 18, 2018 (“Reply Br.”).

STATEMENT OF THE CASE

Pursuant to 35 U.S.C. § 134(a), Appellant,<sup>2</sup> Daniel Debrouse et al., appeals from the Examiner's decision to reject claims 1–5. Final Act. 3. We have jurisdiction under 35 U.S.C. § 6(b).

We REVERSE.

CLAIMED SUBJECT MATTER

The claims are directed to a biopolymer formulation. Claim 1, reproduced below, is illustrative of the claimed subject matter:

1. A biopolymer formulation providing a construction building material product, comprising:  
a base composition including high viscosity sodium alginate powder in an amount from about 0.05 to 5% by weight based upon the total combined weight of said formulation, aluminum oxide in an amount from about 0.05 to 5% by weight based upon the total combined weight of said formulation, amorphous fumed silica in an amount from about 0.05 to 5% by weight based upon the total combined weight of said formulation, a liter of water admixed to said base composition forming a gel and further including about a 15 to 25% by weight calcium chloride solution surface applied to said gel to form a plastic substitute construction building material.

Claims Appendix (Appeal Br. 14).

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<sup>2</sup> We use the word “Appellant” to refer to “applicant” as defined in 37 C.F.R. § 1.42(a). Appellant identifies the real party in interest as Advanced Molar Innovations, LLC. Appeal Br. 1.

### REFERENCE

The prior art reference relied upon by the Examiner is:

Name	Reference	Date
Giller	US 2007/0241482 A1	Oct. 18, 2007

### REJECTION

Claims 1–5 are rejected under 35 U.S.C. § 103 as being unpatentable over Giller. Final Act. 3.<sup>3</sup>

### OPINION

To establish a prima facie case of obviousness, the Examiner must show that each and every limitation of the claim is taught or suggested by the prior art or would have been obvious based on the knowledge of those of ordinary skill in the art. *In re Fine*, 837 F.2d 1071, 1074 (Fed. Cir. 1988).

In this case, claim 1 requires that the recited biopolymer formulation to comprise respective weight percentages of sodium alginate, aluminum oxide, and amorphous fumed silica. In rejecting claim 1 under section 103, the Examiner finds that the prior art teaches an “organic material such as sodium alginate (para 176) in an amount of 0.05% to about 5.0 wt.% with preference in an amount 0.1 to about 1 wt.% (par 245)[.]” Final Act. 3. With regard to the recited percentages of aluminum oxide and amorphous fumed silica, the Examiner finds that the “[u]se of sodium alginate, aluminum oxide and fumed silica each within amount of 0.05-5.0 wt.% or 0.1 to about 1 wt.% would have been obvious to one of ordinary skill in the art as suitable for the building material, thus meets the claimed ranges or amounts.” *Id.*

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<sup>3</sup> A rejection of claims 1–5 under 35 U.S.C. § 112(b) has been withdrawn and not before us on appeal. Ans. 3.

We note that missing from the obviousness analysis is an explanation as to why it would have been routine optimization to arrive at the recited percentages of aluminum oxide and fumed silica. The record before us lacks some rational underpinning explaining why—based on Giller’s teaching of the particular weight percentage of sodium alginate—a person of ordinary skill in the art would have arrived at the recited percentages of the components other than sodium alginate.

Claim 1 further recites “a liter of water admixed to [a] . . . base composition forming a gel and further including about a 15 to 25% by weight calcium chloride solution surface applied to said gel.” In support of the rejection, the Examiner finds that the “liter of water admixed to form a gel and calcium chloride solution applied” is “a recitation of the intended use of the claimed invention[.]” *Id.* We find that the Examiner reversibly erred in finding that these claim limitations are an “intended use of the claimed invention.” The “liter of water” and “a 15 to 25% by weight calcium chloride solution surface” recited in claim 1 are not possible uses of the water and the calcium chloride solution (or the biopolymer formulation) but required components of the “biopolymer formulation” recited in claim 1. The Examiner also errs in failing to elaborate on why the prior art teaches or suggests the particular quantity of water and the particular weight percentage of the calcium chloride solution. *See id.*

Appellant argues that the prior art does not teach or suggest the “claimed percentages of components which change form as a result of the calcium chloride solution compounds chosen in their percentages . . . .” Appeal Br. 9. The Examiner does not respond to this argument. *See generally*, Ans. 4–5. We do not sustain the obviousness rejection because the

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record before us does not show that the prior art teaches or suggests every limitation recited in claim 1.

### CONCLUSION

The Examiner's rejection is reversed.

More specifically,

<b>Claims Rejected</b>	<b>35 U.S.C. §</b>	<b>Basis</b>	<b>Affirmed</b>	<b>Reversed</b>
1-5	103	Giller		1-5

REVERSED