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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* WERNER BUTSCHER, FRIEDRICH RIEMEIER,  
RUDGER RUBBERT, THOMAS WEISE, and ROHIT SACHDEVA

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Appeal 2018-003926  
Application 12/384,538  
Technology Center 3700

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BEFORE MICHAEL J. FITZPATRICK, MICHELLE R. OSINSKI, and  
JEREMY M. PLENZLER, *Administrative Patent Judges*.

PLENZLER, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

Pursuant to 35 U.S.C. § 134(a), Appellant<sup>1</sup> appeals from the Examiner's decision to reject claims 1–14. We have jurisdiction under 35 U.S.C. § 6(b). An oral hearing was held on December 5, 2019.<sup>2</sup>

We REVERSE and enter a NEW GROUND OF REJECTION in accordance with 37 C.F.R. § 41.50(b).

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<sup>1</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 OraMetrix, Inc. Appeal Br. 1.

<sup>2</sup> A transcript is included in the record.

### CLAIMED SUBJECT MATTER

The claims are directed to an orthodontic archwire. Claim 1, reproduced below with emphasis added, is illustrative of the claimed subject matter:

1. A manufactured orthodontic archwire, comprising:  
a wire,  
wherein the wire is customized for a particular patient;  
wherein the wire, in a relaxed state, has a generally arcuate configuration corresponding to an archform for the particular patient to receive the wire;  
wherein the wire comprises a series of straight segments having *precision* lengths, each of the straight segments (a) designated for placement into a slot of a particular bracket bonded to a tooth of the particular patient and (b) capable of sliding along the bracket slot as needed; and  
wherein the straight segments adjacent to each other are inter-connected by a connecting segment, wherein each connecting segment has a curved shape, comprising bends and/or twists, customized for the particular patient; wherein each connecting segment forms a *precision* geometrical relationship in three dimensions between adjacent straight segments of the wire.

### REFERENCES

The prior art relied upon by the Examiner is:

Name	Reference	Date
Brader	US 3,593,421	July 20, 1971
Schudy	US 3,916,526	Nov. 4, 1975
Miura	US 5,017,133	May 21, 1991
Lemchen	US 6,056,545	May 2, 2000
White	US 6,431,861 B1	Aug. 13, 2002

### REJECTIONS

Claims 1, 2, 3, 4, 7, 9, and 12 are rejected under 35 U.S.C. § 102(b) as being anticipated by Brader.

Claims 5, 6, 8 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Brader and White.

Claims 5, 6, and 13 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Brader and Miura.

Claims 10 and 11 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Brader and Lemchen.

Claim 14 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Brader and Schudy.

### OPINION

Claim 1 is the sole independent claim on appeal, and requires a “wire compris[ing] a series of straight segments having precision lengths” that are each “inter-connected by a connecting segment” that “forms a precision geometrical relationship in three dimensions between adjacent straight segments of the wire.” That is, the claim requires “precision lengths” and “a precision geometrical relationship.”

The Examiner finds that Brader discloses these “precision” features, without discussing what structure the term “precision” adds to the claim. Non-Final Act. 3; *see also* Ans. 7–8 (the Examiner appears to imply that the term “precision” does not add any structure to the claim).

Appellant’s main dispute concerns whether Brader teaches that “each connecting segment forms a *precision* geometrical relationship in three dimensions between adjacent straight segments of the wire” as recited in claim 1. Appeal Br. 2–7. Appellant never explains what structure is required by the limitation. Appellant contends, for example, that

[t]he archwire of claim 1 has the precise geometrical relationship because once the wire is inserted onto the patient dentition, under some tension the forces of the wire will act on

the teeth/brackets to move the teeth and the wire can be customized and robotically manufactured based on any arbitrary bracket location between adjacent teeth (*id.* at 5), but does not explain what structure is required by the “precise geometrical relationship.” Similarly, when attempting to distinguish the recited arrangement from Brader, Appellant “disagrees that Brader is capable of forming ‘a precision geometrical relationship in three dimensions between adjacent straight segments of the wire’” (*id.* at 6 (emphasis omitted)), again, without explaining what structure is missing from Brader.

Appellant does not identify, nor do we find, anything in the Specification that provides clarification on the structure required by the term “precision” (whether applied to the “length” or the “geometrical relationship” recited in claim 1). At oral hearing, Appellant acknowledged that “if you have a wire that has some given length, it may or may not be a precision length” because “[i]t depends on whether that length has been designed into the wire intentionally in the process.” Tr. 7:11–14. Appellant acknowledged that to know if something meets the claim, “you would have to investigate how is this wire designed and manufactured” and “if you were looking at a wire, you wanted to know if it was precise or not or bended, has a precision length, you would investigate the design of that wire, just like you’d want to know the design of the bends and twists, how has that been designed.” Tr. 8:3–5, 12–16. Appellant also acknowledged that “just looking at it without getting any information about the wire, other than having a wire in front of you, you probably couldn’t tell” if it meets the claim because “[y]ou would have to know more about how that wire was designed and manufactured.” Tr. 9:12–17. That is, Appellant contends that

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some unspecified feature, dependent on what the designer was thinking, is required by the claim.

Based on the record before us, we determine that the term “precision” adds an unacceptable level of ambiguity into the claim because we are unable to determine what structure is required for the “precision length” or “precision geometrical relationship” recited in claim 1. Rather than guess or render the term “precision” essentially meaningless, we determine that the most appropriate course of action is to enter a new ground of rejection under 35 U.S.C. § 112, second paragraph. *See In re Packard*, 751 F.3d 1307, 1310 (Fed. Cir. 2014) (per curiam) (A claim is properly rejected as indefinite if, after applying the broadest reasonable interpretation in light of the specification, the metes and bounds of a claim are not clear because the claim contains words or phrases whose meaning is unclear.); *see also Ex parte McAward*, Appeal No. 2015-006416, 2017 WL 3669566, at \*5 (PTAB Aug. 25, 2017) (precedential) (adopting the approach for assessing indefiniteness approved by the Federal Circuit in *Packard*).

Because we determine the claims to be indefinite, and addressing the term “precision” would require speculation on our part, we do not reach the merits of the anticipation and obviousness rejections. Instead, we reverse those rejections *pro forma*. *See In re Aoyama*, 656 F.3d 1293, 1300 (Fed. Cir. 2011) (holding that the Board erred in affirming an anticipation rejection of indefinite claims); *In re Steele*, 305 F.2d 859, 862 (CCPA 1962) (holding that the Board erred in affirming a rejection of indefinite claims under 35 U.S.C. § 103(a), because the rejection was based on speculative assumptions as to the meaning of the claims).

### CONCLUSION

The Examiner's rejections are reversed. For the reasons stated above, a new ground of rejection is entered for claims 1–14 under 35 U.S.C. § 112, second paragraph.

### DECISION SUMMARY

In summary:

<b>Claims Rejected</b>	<b>35 U.S.C. §</b>	<b>Reference(s)/Basis</b>	<b>Affirmed</b>	<b>Reversed</b>	<b>New Ground</b>
1, 2, 3, 4, 7, 9, 12	102(b)	Brader		1, 2, 3, 4, 7, 9, 12	
5, 6, 8	103(a)	Brader, White		5, 6, 8	
5, 6, 13	103(a)	Brader, Miura		5, 6, 13	
10, 11	103(a)	Brader, Lemchen		10, 11	
14	103(a)	Brader, Schudy		14	
1–14	112, ¶ 2	Indefiniteness			1–14
<b>Overall Outcome</b>				1–14	1–14

### TIME PERIOD FOR RESPONSE

Section 41.50(b) provides “[a] new ground of rejection pursuant to this paragraph shall not be considered final for judicial review.” Section 41.50(b) also provides that Appellant, WITHIN TWO MONTHS FROM THE DATE OF THE DECISION, must exercise one of the following two options with respect to the new grounds of rejection to avoid termination of the appeal as to the rejected claims:

(1) *Reopen prosecution*. Submit an appropriate amendment of the claims so rejected or new Evidence relating to the claims so rejected, or

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both, and have the matter reconsidered by the examiner, in which event the proceeding will be remanded to the examiner.

(2) *Request rehearing.* Request that the proceeding be reheard under § 41.52 by the Board upon the same Record.

Further guidance on responding to a new ground of rejection can be found in the Manual of Patent Examining Procedure § 1214.01.

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).

REVERSED; 37 C.F.R. § 41.50(b)