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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte KLAUS DUERING and
JOACHIM GEORG PFEFFER

Appeal 2019-002932
Application 13/386,960
Technology Center 3700

Before JAMES P. CALVE, BRANDON J. WARNER, and
LEE L. STEPINA, *Administrative Patent Judges*.

CALVE, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

Pursuant to 35 U.S.C. § 134(a), Appellant[1] appeals from the decision of the Examiner to reject claims 23–37. Appeal Br. 2. Claims 1–22 are cancelled. *Id.* at 23 (Claims App.). We have jurisdiction under 35 U.S.C. § 6(b).

We enter a New Ground of Rejection, and we reverse *pro forma* the Examiner's prior art rejections of all pending claims.

[1] "Appellant" refers to "applicant" as defined in 37 C.F.R. § 1.42. Appellant identifies Dr. Klaus Duering as the real party in interest. Appeal Br. 2.

CLAIMED SUBJECT MATTER

Claims 23 and 33 are independent, with claim 23 reproduced below with disputed terms highlighted in italics.

> 23. An insertion tube effective for inserting an apparatus for treating sleep apnea and snoring through a nasal passage into a pharyngeal zone,
>
> said insertion tube comprising a proximal end and a distal end, and *comprising an insertion tip integrally formed on the distal end of the insertion tube*;
>
> *wherein the insertion tube has a segment of a circle at its distal end only, and the segment of a circle has an arc of about 80° - 120°*, the insertion tube being of length and inner and outer diameter effective for inserting said apparatus for treating sleep apnea and snoring through said nasal passage into said pharyngeal zone;
>
> wherein the insertion tube comprises a sufficiently hard plastic material to be effective for insertion of an apparatus for treating sleep apnea and snoring through said nasal passage into said pharyngeal zone, and
>
> wherein the insertion tip comprises a flexible soft material which is softer than the sufficiently hard plastic material of the insertion tube,
>
> *whereby the insertion tube is constructed and arranged to be effective for inserting said apparatus for treating sleep apnea and snoring through said nasal passage into said pharyngeal zone*.

REJECTIONS

Claims 23–25 and 28–37 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Levin (US 2003/0133877 A1, pub. July 17, 2003) and Pomeranz (US 5,078,702, iss. Jan. 7, 1992).

Claims 26 and 27 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Levin, Pomeranz, and Lovgren (US 4,886,506, iss. Dec. 12, 1989).

ANALYSIS

The Patent Laws set forth the standard for indefiniteness by stating that "[t]he specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention." 35 U.S.C. § 112, second paragraph.

For claims in a pending application that has not issued as a patent, "[a] claim is indefinite when it contains words or phrases whose meaning is unclear." *In re Packard*, 751 F.3d 1307, 1310, 1314 (Fed. Cir. 2014); *see Ex parte McAward*, 2017 WL 3669566 at *2, No. 2015-006416, slip op. at 11 (PTAB Aug. 25, 2017) (precedential) (same).

Packard, 751 F.3d at 1311 also held that:

> [W]hen the USPTO has initially issued a well-grounded rejection that identifies ways in which language in a claim is ambiguous, vague, incoherent, opaque, or otherwise unclear in describing and defining the claimed invention, and thereafter the applicant fails to provide a satisfactory response, the USPTO can properly reject the claim as failing to meet the statutory requirements of § 112(b).

"[A] patent does not satisfy the definiteness requirement of § 112 merely because 'a court can ascribe *some* meaning to a patent's claims.'" *Interval Licensing LLC v. AOL, Inc.*, 766 F.3d 1364, 1371 (Fed. Cir. 2014) (quoting *Nautilus, Inc. v. Biosig Instruments, Inc.*, 572 U.S. 898, 911 (2014)). Rather, "[t]he claims, when read in light of the specification and the prosecution history, must provide objective boundaries for those of skill in the art." *Id.* (citing *Nautilus*, 572 U.S. at 911 & n.8 (determining that an indefiniteness problem exists "if the claim language might mean several different things and no informed and confident choice is available among the contending definitions" (internal quotations and citation omitted))).

New Ground of Rejection
Claims 23–37 are Rejected under 35 U.S.C. § 112, Second Paragraph

Independent claims 23 and 33 both recite the limitation, "whereby the insertion tube is constructed and arranged to be effective for inserting said apparatus [apnea stent] for treating sleep apnea and snoring through said nasal passage into said pharyngeal zone." Appeal Br. 23, 25 (Claims App.).

This limitation renders claims 23 and 33 indefinite. It is unclear how the insertion tube is "constructed and arranged" to be effective for inserting the apparatus (claim 23) or apnea stent (claim 33) "for treating sleep apnea and snoring through said nasal passage into said pharyngeal zone."

The Summary of Claimed Subject Matter in the Appeal Brief cites to page 13, lines 19–21 of the Specification for a description of this feature. Appeal Br. 3, 6. This portion of the Specification discloses:

> The shape of the insertion tube is adapted to the course of the nasal and pharyngeal zones. As a result, the insertion is facilitated and pain is avoided for the user since the shape of the insertion tube corresponds to the course of the nasal and pharyngeal zones.

Spec. 13:18–21. However, the Specification does not describe any structure or dimensions of the nasal or pharyngeal zones, or any structure of the tube that is "adapted to the course of the nasal and pharyngeal zones." Instead, the Specification describes the insertion tube hardness providing this benefit.

> The insertion tube is preferably made of a sufficiently hard, suitable plastic material, such as PEBAX having a shore hardness of 60 shore D to 80 shore D. The hardness of the plastic material has a considerable influence on an optimum and/or accurate adaptation of the insertion tube to the nasal passage during the insertion.

Id. at 13:29–14:3.

The Specification also describes distal tip 45 of the insertion tube as being made of "a flexible, substantially softer material, such as PEBAX having a shore hardness of 25 shore D to 45 shore D," with chamfer 46 of 45º at its distal end to promote effective insertion of the tube through the bends of the respiratory tract and nasal passage. *See id.* at 14:3–20.

The Specification describes these features, the outer diameter, and the curvature of the insertion tube as other features that promote insertion.

> Injuries of the vessel walls are thus avoided when the apnea stent 1 is inserted in the respiratory duct and the insertion is facilitated since the insertion tube can perfectly follow the bends of the respiratory duct and the insertion tip is very soft and flexible. The outer diameter of the insertion tube is up to 5 mm to enable an easy, pain-free insertion for the user. . . . An abutment against the pharyngeal zone is prevented by the curvature of the insertion tube so as to ensure an injury-free insertion.

Id. at 14:17–25. The curvature of the insertion tube is described as a distal end that is curved in the shape of a segment and extends over an angle of about 80º to 120º and has a radius of about 3 cm to 7 cm. *Id.* at 13:24–27.

Thus, the Specification describes an insertion tube "constructed and arranged" with the following features that facilitate its insertion through the nasal passage into the pharyngeal zone: (1) insertion tube is made of plastic with a shore hardness of 60 shore D to 80 shore D; (2) its distal tip is softer with a shore hardness of 25 shore D to 45 shore D; (3) the distal tip 45 has a chamfer 46 at its end; (4) the tube's outer diameter is up to 5 mm; (5) the distal end of the insertion tube is curved over an angle of about 80º to 120º and a radius of about 3 cm to 7 cm; and (6) the body of the tube is straight for an undisclosed length prior to this curve at the distal end.

In light of the Specification, it is unclear which of these six features is encompassed by "whereby the insertion tube is *constructed and arranged* to be effective for inserting said apparatus [apnea stent] for treating sleep apnea and snoring through said nasal passage into said pharyngeal zone." Some of these features are recited expressly in the claims. Claim 23 recites a curved segment of about 80º to 120º at a distal end of the tube, which is sufficiently hard plastic material to insert through the nasal passage into the pharyngeal zone, and the tip is a flexible soft material. Appeal Br. 23 (Claims App.). Claim 33 recites a circle segment arc about 80º to 120º, a substantially linear proximal end, a tube of sufficiently hard plastic material, a tip of a flexible soft material with a hardness of 25 shore D to 45 shore D, and a chamfer or dome at the distal end of the insertion tip. *Id.* at 25. If the whereby clause requires all six features, other limitations recited expressly in claims 23 and 33 are rendered superfluous, which violates a canon of claim construction. *See Apple, Inc. v. Ameranth, Inc.*, 842 F.3d 1229, 1237 (Fed. Cir. 2016) ("Construing a claim term to include features of that term already recited in the claims would make those expressly recited features redundant.").

Dependent claims 24, 25, and 28–32 recite other features as a segment radius of about 3 cm to 7 cm, a proximal end of the tube is substantially linear, an arc of about 90º to 100º, specific shore hardnesses for the tube, and a chamfered tip. Appeal Br. 23–24 (Claims App.). A presumption arises that these features are not included in independent claim 23, from which these other claims depend. *See Inline Plastics Corp. v. EasyPak, LLC*, 799 F.3d 1364, 1371 (Fed. Cir. 2015) ("[T]he presence of a dependent claim that adds a particular limitation gives rise to a presumption that the limitation in question is not present in the independent claim.").

A skilled artisan reading this limitation in claims 23 and 33 in light of the claim language and Specification would not be able to discern a definite scope of "whereby the insertion tube is *constructed and arranged* to be effective for inserting said apparatus [apnea stent] for treating sleep apnea and snoring through said nasal passage into said pharyngeal zone." The Specification does not provide objective boundaries to interpret what is constructed and arranged particularly in light of other limitations recited in claim 23 and its dependent claims, which recite many, if not all, of the limitations described in the Specification as contributing to the ability of the insertion tube to be inserted through the nasal passage into the pharyngeal zone. It is not clear how else the insertion tube is constructed and arranged to be effective for inserting through a nasal passage into the pharyngeal zone as claimed. Thus, the scope of this limitation is unclear as it relates to what structure or arrangement is claimed beside what is recited expressly in the claims. For the foregoing reasons, claims 23 and 33 fail to particularly point out and distinctly claim the subject matter regarded as the invention. Thus, claims 23 and 33, and claims 24–32 and 34–37 depending therefrom, are rejected as indefinite.

Prior Art Rejections of Claims 23–37

Because the phrase "whereby the insertion tube is constructed and arranged to be effective for inserting said apparatus [apnea stent] for treating sleep apnea and snoring through said nasal passage into said pharyngeal zone" is indefinite, we do not sustain the prior art rejections. *In re Wilson*, 424 F.2d 1382, 1385 (CCPA 1970) ("If no reasonably definite meaning can be ascribed to certain terms in the claim, the subject matter does not become obvious—the claim becomes indefinite.").

Before a proper review of these rejections can be performed, the subject matter encompassed by the claims on appeal must be reasonably understood without resort to speculation. The indefinite limitation in claims 23 and 33 requires us to speculate as to whether the insertion tube of Levin is similarly "constructed and arranged" because Levin and Pomeranz teach or suggest the other limitations recited in claims 23 and 33. For example, Levin's insertion tube 100 has a curved segment similar to what Appellant illustrates for the claimed circle segment. *See* Levin, Fig. 4A; Appeal Br. 9. Levin teaches that this curved segment can be "at one point" and "angled at the distal end" as claimed. *See* Levin ¶ 285; *see also id.* ("the body may be further curved, again at one point . . . such that the distal end of the body is angled"); Final Act. 3; Ans. 12–13. Levin also teaches an arc of about 90º to about 170º that overlaps the claimed range of about 80º to 120º and thereby renders the claimed range prima facie obvious. Levin ¶¶ 71, 283; Ans. 12; *see also In re Peterson*, 315 F.3d 1325, 1329 (Fed. Cir. 2003); *Titanium Metals Corp. of Am. v. Banner*, 778 F.2d 775, 782–83 (Fed. Cir. 1985).[2]

Because the claims fail to satisfy the requirements of 35 U.S.C. § 112, second paragraph, however, we must reverse the prior art rejections because they are necessarily based on speculative assumptions as to the scope of the claims. *See In re Steele*, 305 F.2d 859, 862–63 (CCPA 1962) (determination of obviousness was based on unsupported speculative assumptions where the claims did not particularly point out and distinctly claim the invention). Our decision is *pro forma* based solely on the indefiniteness of the claims, and does not reflect on the adequacy of the prior art applied in the rejections.

[2] To the extent Appellant wants us to give weight to the nasal passage and pharyngeal zone, claims 23 and 33 are apparatus claims, not method claims.

CONCLUSION

Claims Rejected	35 U.S.C. §	Reference/Basis	Affirmed	Reversed	New Ground
23–25, 28–37	103(a)	Levin, Pomeranz		23–25, 28–37	
26, 27	103(a)	Levin, Pomeranz, Lovgren		26, 27	
23–37	112 ¶ 2	Indefiniteness			23–37
Overall Outcome				23–37	23–37

This decision contains a new ground of rejection entered pursuant to 37 C.F.R. § 41.50(b). Section 41.50(b) provides that "[a] new ground of rejection pursuant to this paragraph shall not be considered final for judicial review." Section 41.50(b) also provides:

> When the Board enters such a non-final decision, the appellant, within two months from the date of the decision, must exercise one of the following two options with respect to the new ground 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 both, and have the matter reconsidered by the examiner, in which event the prosecution will be remanded to the examiner. The new ground of rejection is binding upon the examiner unless an amendment or new Evidence not previously of Record is made which, in the opinion of the examiner, overcomes the new ground of rejection designated in the decision. Should the examiner reject the claims, appellant may again appeal to the Board pursuant to this subpart.
>
> (2) *Request rehearing*. Request that the proceeding be reheard under § 41.52 by the Board upon the same Record. The request for rehearing must address any new ground of rejection and state with particularity the points believed to have been

> misapprehended or overlooked in entering the new ground of rejection and also state all other grounds upon which rehearing is sought.

Further guidance on responding to a new ground of rejection can be found in the MANUAL OF PATENT EXAMINING PROCEDURE § 1214.01 (9th Ed., Rev. 08.2017, Jan. 2018).

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).

REVERSED; 37 C.F.R. § 41.50(b)