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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte JOSHUA MAKOWER,
ANTON G. CLIFFORD, and RICHARD G. VECCHIOTTI

Appeal 2018-008529¹
Application 13/403,633
Technology Center 3700

Before MICHAEL L. HOELTER, ANNETTE R. REIMERS, and
LISA M. GUIJT, *Administrative Patent Judges*.

GUIJT, *Administrative Patent Judge*.

¹ Appellant identifies the following U.S. Patent Applications as related to the present appeal: (i) 11/743,097 (Appeal No. 2018-008882; decision rendered Aug. 20, 2019); (ii) 11/743,605 (Appeal No. 2018-5378; awaiting decision); (iii) 12/112,442 (Appeal No. 2017-007504; decision rendered Dec. 5, 2017); (iv) 12/949,687 (Appeal No. 2017-011158; decision rendered Dec. 19, 2018); (v) 13/309,984 (Appeal No. 2018-008884; awaiting decision); (vi) 13/800,676 (Appeal No. 2018-004053; decision rendered Jan. 9, 2019); and (vii) 14/075,090 (issued US Patent 10,010421). Appeal Br. 3. Notably, the following appeals are also related to the instant application: (i) Appeal No. Appeal No. 2012-009985 (decision rendered Nov. 24, 2014); Application No. 12/690,687; (ii) 2013-005706 (decision rendered Apr. 30, 2015); Application No. 12/985,878; (iii) Appeal No. 2016-008017 (decision rendered Sept. 22, 2010); Application No. 12/628,866; (iv) Appeal No. 2017-001940 (decision rendered Dec. 21, 2017); Application No. 13/467,931; and (v) Appeal No. 2018-004053 (decision rendered Jan. 9, 2019); Application No. 12/800,676.

DECISION ON APPEAL

Appellant² appeals under 35 U.S.C. § 134(a) from the Examiner's rejection of claims 45, 46, and 48–54. Final Act. 3. We have jurisdiction under 35 U.S.C. § 6(b).

We REVERSE.

STATEMENT OF THE CASE

Claim 45, reproduced below as the sole independent claim on appeal, is exemplary of the subject matter on appeal.³

45. A knee support apparatus, comprising:

a first attachment structure configured to attach to a femur;

a second attachment structure configured to attach to a tibia; and

a spring assembly attached to the first attachment structure and the second attachment structure and configured to extend on a side of a knee joint, the spring assembly comprising:

a spring or elastomeric member coupled to one of the first attachment structure and the second attachment structure; and

a rod coupled to the other of the first attachment structure and the second attachment structure,

wherein the rod is configured to compress the spring or elastomeric member at least when the knee joint is in a fully extended position such that the spring assembly

² We use the word “Appellant” to refer to “applicant” as defined in 37 C.F.R. § 1.42. Appellant identifies the real party in interest as Moximed, Inc. Appeal Br. 3.

³ Notably, in response to the Examiner's Restriction Requirement dated December 23, 2014, Appellant elected “the species illustrated in Fig. 68.” See Response to Restriction Requirement, dated Feb. 20, 2015, page 1.

axially transfers force between the first attachment structure and the second attachment structure, and

wherein the rod is configured to substantially unload the spring or elastomeric member when the knee joint is in a fully flexed position such that the spring assembly substantially avoids axially transferring force between the first attachment structure and the second attachment structure.

THE REJECTIONS⁴

- I. Claims 45, 46, and 48–54⁵ stand rejected under 35 U.S.C. § 112, second paragraph, as indefinite.
- II. Claims 45, 46, and 48–54⁶ stand rejected under 35 U.S.C. § 102(b) as being anticipated by Orsak (US 6,162,223; issued Dec. 19, 2000).

ANALYSIS

Rejection I

Claim 45 and dependent claims 46, 50, 51, and 54

Regarding independent claim 45,⁷ the Examiner finds, with reference to the elected species depicted in Figure 68 of the Specification, that “it is

⁴ The Examiner’s objection to the drawings is a petitionable, not appealable, matter. *See* Final Act. 4–5; *see also* 37 C.F.R. § 1.181; *Ex Parte Frye*, 94 USPQ2d 1072, 1077–78 (BPAI 2010) (precedential).

⁵ The Examiner lists claims 44–54 in the summary of this rejection. Final Act. 5. However, claims 44 and 47 have been canceled. *See* Appeal Br. 5, n. 1.

⁶ The Examiner lists claims 45–54 in the header of this rejection. Final Act. 6. However, claim 47 has been canceled. *See* Appeal Br. 5, n. 2.

⁷ As claim 44 is canceled, we apply the Examiner’s analysis referencing cancelled claim 44 to pending claim 45. *See* Final Act. 5.

unclear how a second attachment structure can be attached to the second end 404” and also “how the spring assembly will still function when configured at such a sharp angle.” Final Act. 5. The Examiner also finds that—again, with reference to Figure 68, claim 45 is indefinite because “the spring is not coupled to the first or second attachment structures,” as required by claim 45. *Id.*; *see also* Ans. (determining that it is unclear “what specific attachment structures are compatible” and “how the attachment structures would or if they would accept a fastener therethrough”).

Appellant argues that this rejection is based on “an incomplete reading of the subject matter of the species illustrated in Fig. 68, and a misapplication of the section 112, second paragraph.” Appeal Br. 17–18. Appellant submits that the Examiner improperly concludes that claim 45 is unclear because the Examiner cannot find a single drawing figure that illustrates all of the features of claim 45. *Id.* at 19 (citing Spec. ¶ 249 (for generally disclosing that “various manners of engaging energy absorbing structure with attachment structure and attachment structures to body anatomy can be utilized in each approach”)). Appellant further submits that breadth is not indefiniteness. Reply Br. 5 (citing MPEP § 2173.04).

Appellant’s argument is persuasive.

A claim is properly rejected as being indefinite under 35 U.S.C. § 112, second paragraph 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.” *In re Packard*, 751 F.3d 1307, 1310 (Fed Cir. 2014). Here, the claimed structures and required attachments of claimed structures are clearly defined,

to the extent the entirety of the elected species of the knee support apparatus is claimed.

Enablement is a legal determination of whether a patent enables one skilled in the art to make and use the claimed invention. *Hybritech Inc. v. Monoclonal Antibodies, Inc.*, 802 F.2d 1367, 1384 (Fed. Cir. 1986). Further, the written description requirement is met when the disclosure “allow[s] one skilled in the art to visualize or recognize the identity of the subject matter purportedly described.” *Enzo Biochem, Inc. v. Gen-Probe Inc.*, 323 F.3d 956, 968 (Fed. Cir. 2002). Here, the Examiner refers to a lack of guidance from the Specification regarding how, for example, the claimed spring assembly is attached to the first and second attachment structures, as required by claim 45. The Examiner also refers to a lack of description in the Specification, as to whether, for example, the spring is disclosed as coupled to the first or second attachment structures, as required by claim 45. However, rejections for failing to comply with the written description and enablement requirements of 35 U.S.C. § 112, first paragraph, are not before us on appeal.

Accordingly, we do not sustain the rejection of claim 45 under 35 U.S.C. § 112, second paragraph, as indefinite, and claims 46, 50, 51, and 54 depending therefrom.⁸

Dependent claims 48, 49, 52, and 53

The Examiner generally finds that “[i]n view of the indefinite attachment structure recitations,” dependent claims 48, 49, 52, and 53 are

⁸ The Examiner did not set forth a basis for the indefiniteness of claims 46, 50, 51, and 54 apart from the basis set forth *supra* for claim 45.

also rendered indefinite. Final Act. 6. Additionally, the Examiner finds that (i) claim 48, which requires, in relevant part, “wherein the spring assembly is pivotally attached to the first attachment structure and the second attachment structure” (Appeal Br. 22 (Claims App.)) is indefinite because “the spring assembly is not pivotally attached to both the first and second attachment structures”; (ii) claim 49, which recites, in relevant part, “a first joint positioned between the spring assembly and the first attachment structure and a second joint positioned between the spring assembly and the second attachment structure” (Appeal Br. 22 (Claims App.)) is indefinite because “there doesn’t appear to be a second joint on either end of rod 404”; (iii) claim 52, which recites, in relevant part, “wherein the first attachment structure and the second attachment structure are configured to position the spring assembly such that the spring assembly does not contact the femur or the tibia” (Appeal Br. 22 (Claims App.)) is indefinite because “it is unclear how the spring is positioned, let alone if it engages the femur or tibia”; and (iii) claim 53, which recites, in relevant part, “further comprising a first fastener configured to extend through the first attachment structure and at least partially through the femur, and a second fastener configured to extend through the second attachment structure and at least partially through the tibia” (Appeal Br. 22 (Claims App.)) is indefinite because “it is unclear what structure comprises the second attachment structure and how a fastener would extend through it.” Final Act. 6.

Again, the Examiner’s findings relate to 35 U.S.C. § 112, first paragraph, rather than clarity of the claim language.

Accordingly, we do not sustain the rejection of claims 48, 49, 52, and 53 under 35 U.S.C. § 112, second paragraph, as indefinite.

Rejection II

Regarding independent claim 45, the Examiner finds that Orsak discloses the claimed knee support apparatus, including, *inter alia*, a spring assembly attached to first and second attachment structures configured for attachment to a femur and tibia, respectively, and that the spring assembly comprises a spring (i.e., central or coil spring section 22) and a rod (i.e., proximal rod section 15). Final Act. 6 (citing Figs. 5, 11–14). The Examiner also finds that

Figure 6 [of Orsak] shows the configuration of the spring and [rod section 15] in a fully extended state. In this state, the spring is compressed and [rod sections 15, 16] are engaged end to end. Figure 7 then shows the spring in the fully flexed configuration wherein the compression has been unloaded by flexing. As seen at the top of Figure 7, the spring is no longer fully compressed.

Ans. 4.

The Examiner further finds, with respect to *the rods* being configured to compress or unload the spring, that Orsak’s rod sections 15, 16 “rotate and push apart from each other,” and that “[w]ithout the direct end to end contact, they are no longer transferring an axial force.” *Id.* at 5. The Examiner further concludes that when bent, “[t]he attachment members are not aligned axially so there can be no axial forces transferred between them,” only “bending moments and torsional forces [are] transferred.” *Id.* at 5.

Appellant argues, *inter alia*, that “[w]hen Orsak’s device’s rods are not in contact, its spring is free to act as a spring and be compressed; however, the claims require . . . the opposite – the rod unloads the spring . . . , such that the spring assembly substantially avoids axially transferring force between the first attachment structure and the second attachment structure.”

Appeal Br. 14. Appellant concludes that “in *Orsak’s* device, the spring is [always] loaded.” *Id.* In support, Appellant submits that

Orsak’s device[] is always in compression, regardless of the orientation of the patient’s joint across which it is mounted. This causes the spring to push outwardly, as *Orsak’s* [device] [is] require[d] to always distract the patient’s joint,^[9] and therefore, at no angular position do *Orsak’s* spring and rods cooperate to “unload the spring when the knee joint is in a fully flexed position such that the spring assembly substantially avoids axially transferring force between the first attachment structure and the second attachment structure”. That is, when *Orsak’s* device is mounted as illustrated in Fig. 12, it does not unload the spring when the knee joint is in a fully flexed position, and *Orsak’s* spring assembly does not avoid axially transferring force between the first attachment structure and the second attachment structure.

Appeal Br. 12–13. Appellant submits that “*Orsak* never says that its spring, which has been fully compressed as illustrated in Fig. 6, when bent somehow includes a portion which is unloaded,” and that the Examiner errs by concluding that less compression means that the spring has been substantially unloaded. Reply Br. 2.

Claim 45 requires, depending on the extension or flexure of the knee joint (i.e., the movement and re-positioning of the first and second attachment structures), (i) *the rod* to be configured to compress the spring, such that the spring assembly axially transfers force between the first and second attachment structures; and also (ii) *the rod* to be configured to substantially unload the spring, such that the spring assembly substantially avoids axially transferring force between the first and second attachment

⁹ The Specification refers to “the physician separating (i.e., distracting) the natural joint.” Spec. ¶ 36.

structures. To demonstrate anticipation, the Examiner must demonstrate that a prior art reference shows every element of the claimed invention identically, in the same relationship as in the claim. *In re Bond*, 910 F.2d 831, 832 (Fed. Cir. 1990).

Orsak discloses that “[t]he hemispherical rod ends 26, 27 make contact at 25 to prevent loss of distraction of the wrist joint so that the length of the radius^[10] is maintained.” Orsak 5:38–42. Orsak also discloses that “rod ends 26, 27 typically maintain contact when the connector 19 is flexed and with respect to the knee joint fixator” (*id.* at 5:42–45, Figs. 6, 7), however, “end portions 26, 27 move apart at larger flexion angles with a gap 72 therebetween (*id.* at 6:7–9, Fig. 14). However, a preponderance of the evidence fails to support the Examiner’s finding that Orsak discloses that *the rods* are configured to compress or substantially unload central spring section 22, as required by claim 45. Rather, Orsak discloses that the function of the rods is to maintain a minimum distance between cylindrical proximal and distal ends 20, 21 of the central spring section 22. The loading and unloading of Orsak’s spring results from each of the ends of the spring module being connected by attachment structures to separate bones, such that the spring’s loading is dictated by the relative position of each of the attachment structures to the other when the bones move.

We also construe claim 45 to require the spring to be *substantially unloaded*, which includes the substantial avoidance of *axial* force transfer by the spring assembly (i.e., rod and spring) between the first and second

¹⁰ Orsak defines a “radius” as “a patient’s bone tissue such as radius 11.” Orsak 6:19.

attachment structures, as well as all other force transfers by *the spring* (i.e., the spring must be substantially unloaded of *all* force transfers, axial and otherwise). We agree with Appellant that Orsak fails to disclose that central spring section 22 is *substantially unloaded* (notwithstanding the Examiner's finding that Orsak's spring module does not transfer *axial* force between the connection structures when bent), and that the Examiner's finding in this respect is speculative. In other words, we agree with Appellant, and a preponderance of the evidence from Orsak supports that Orsak's spring is always loaded—at least to some extent that is *not* substantially unloaded, as required by claim 45.

Accordingly, we do not sustain the Examiner's rejection of independent claim 45, and claims 46, and 48–54 depending therefrom.

DECISION

The Examiner's decision rejecting claims 45, 46, and 48–54 is REVERSED.

REVERSED