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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte JAMES L. ASHMUS

Appeal 2011-000560
Application 11/207,409
Technology Center 3600

Before JENNIFER D. BAHR, MICHAEL C. ASTORINO, and
MICHELLE R. OSINSKI, *Administrative Patent Judges*.

OSINSKI, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

Appellant appeals under 35 U.S.C. § 134(a) from a final rejection of claims 1-4, 6, 10-14, and 17-19. Claims 5¹, 7-9, 15, and 20-24 have been withdrawn, and claim 16 has been cancelled. Br. 2. We have jurisdiction under 35 U.S.C. § 6(b).

We AFFIRM-IN-PART.

CLAIMED SUBJECT MATTER

The claimed subject matter relates to a “flexible ladder-like device in the form of a belting ladder designed for secure, relatively effortless descent of a person from a building or the like.” Spec. 2, ll. 29-31. Claims 1 and 11 are the independent claims on appeal. Claim 1, reproduced below, is illustrative of the claimed subject matter:

1. A belting ladder comprising:
 - a one-piece elongate band of flat reinforced polymeric conveyor-type belting material having a belt thickness and being flexible to the extent that it can be rolled into a coil, the band:
 - in its use position having a length along a gravity-defined longitudinal axis and a width along a coiled axis, the length being at least several multiple times greater than the width,
 - including a plurality of flexible elongate reinforcement elements therein which extend throughout its entire length,

¹ The Examiner withdrew claim 5 from consideration (Final Rej. 1), but includes claim 5 in the rejection under 35 U.S.C. § 112, second paragraph. Final Rej. 2; Ans. 3; *contra id.* at 2 (omitting claim 5 in the list of rejected claims). Further, Appellant requests review of the rejection of claim 5. Br. 4. Accordingly, we treat claim 5 as rejected and involved in this appeal. The Examiner may wish to clarify the status of claim 5 upon return of jurisdiction of this application to the Examiner.

- having a plurality of longitudinally-spaced apertures therethrough along its length and aligned along the longitudinal axis and recurring in a number multiple times greater than the number of apertures across the width, the apertures each having a substantially transverse edge portion forming a rung-like feature for weight-bearing engagement by a person's foot or hand, the transverse edge portions having substantially the same thickness as the belt thickness and being the only weight-bearing foot-engagement features, the apertures and edge portions being permanently dimensioned to freely receive a person's foot, and
 - being sufficiently fixed in its form to retain its stability and the shape of its apertures despite weight-bearing in a direction along its length; and
 - an attachment device at an end of the band.

REJECTIONS

Appellant seeks review of the following rejections:

- (1) the rejection of claims 1-6, 10-14, and 17-19 under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Appellant regards as the invention (Ans. 3-4);
- (2) the rejection of claims 1-4, 6, and 10-14 under 35 U.S.C. § 103(a) as unpatentable over Borgfeldt (US 256,874, iss. Apr. 25, 1882), Lehr (US 3,756,593, iss. Sep. 4, 1973), and Tucker (US 227,324, iss. May 4, 1880) (Ans. 4-5);
- (3) the rejection of claims 11-14 and 19 under 35 U.S.C. § 103(a) as unpatentable over Borgfeldt, Lehr, Tucker, and May (US 2001/0045323 A1, pub. Nov. 29, 2001) (Ans. 5);

(4) the rejection of claim 17 under 35 U.S.C. § 103(a) as unpatentable over Borgfeldt, Lehr, Tucker, and Murphy (US 285,832, iss. Oct. 2, 1883) (Ans. 5); and

(5) the rejection of claims 11-14 under 35 U.S.C. § 103(a) as unpatentable over Borgfeldt, Lehr, Tucker, and Melville (GB 2 222 848 A, pub. Mar. 21, 1990) (Ans. 5-6).

ANALYSIS

Rejection of claims 1-6, 10-14, and 17-19 as indefinite

The Examiner concluded that claims 1-6, 10-14, and 17-19 were indefinite for failing to particularly point out and distinctly claim the subject matter which Appellant regards as the invention because the recited limitation “*the* number of apertures across the width” set forth in independent claims 1 and 11 lacks antecedent basis. Ans. 3-4 (emphasis added). The Examiner determined that it was “unclear if [A]ppellant is claiming more than one aperture across the width of the band” (*Id.* at 4) since the recited limitation “suggests that **more than one** aperture is across the width while the plurality of apertures along the length would inherently provide antecedent basis for only one aperture across the width” (*Id.* at 8).

We agree with Appellant that the recitation of the plurality of longitudinally spaced apertures inherently introduces some number of apertures across the width of the band. *See* Br. 5 (citing MANUAL OF PATENT EXAMINING PROCEDURE (MPEP), § 2173.05(e)). Claims 1 and 11 leave open the possibility that there may be only one aperture or there may be more than one aperture across the width of the band at a certain longitudinal location in various embodiments. However, this breadth regarding whether there is one, or more than one, aperture across the width of the band at a

certain longitudinal location does not prevent one skilled in the art from understanding what is claimed when the claim is read in light of the Specification. Merely that a claim is broad does not mean that it is indefinite. *See In re Johnson*, 558 F.2d 1008, 1016 n.17 (CCPA 1977); *In re Miller*, 441 F.2d 689, 693 (CCPA 1971); *In re Gardner*, 427 F.2d 786, 788 (CCPA 1970). We determine that one of ordinary skill in the art would understand what is claimed—the number of apertures recurring along the length of the belting material being multiple times greater than the number of apertures recurring across the width of the belting material. *See Orthokinetics, Inc. v. Safety Travel Chairs, Inc.*, 806 F.2d 1565, 1576 (Fed. Cir. 1986). For the forgoing reasons, we do not sustain the rejection of claims 1-6, 10-14, and 11-19 as indefinite under 35 U.S.C. § 112, second paragraph.

*Rejection of claims 1-4, 6, and 10-14 under
35 U.S.C. § 103(a) as unpatentable over Borgfeldt, Lehr, and Tucker*

Appellants argue claims 1-4, 6, and 10-14 as a group. Br. 5-10. We select claim 1 as the representative claim, and claims 2-4, 6, and 10-14 stand or fall with claim 1. *See* 37 C.F.R. § 41.37(c)(1)(vii)(2011).

The Examiner found that Borgfeldt teaches substantially all of the limitations of independent claim 1, except for, most significantly, the material of the band. Ans. 4. The Examiner found that Lehr’s belting ladder material is “considered to be convey[o]r-type belting material” because it is strong yet flexible based on Appellant’s definition of this term in the Specification. *Id.* at 9-10; *see also id.* at 10 (quoting Spec. 3, ll. 15-19, 24-26) (“The term ‘convey[o]r belting’ as used herein refers to tough flat

polymeric materials such as rubber, nylon, PVC *or other strong yet flexible material* which is flexible in the sense and to the extent that it can be rolled up into a coil but still retains sufficient form when a user's weight is applied at an aperture therein. . . . There is a wide variety of conveyor belting material which is suitable for the present invention and the above definition is in no way limiting for a special type of belting material.”) (emphasis added). The Examiner found in particular that that the material of Lehr is “made of a wire mesh reinforced polymer sheet with holes cut out for accommodating hands and feet to assist in climbing.” *Id.* at 9, 13-14; *see also id.* (quoting Lehr, col. 4, ll. 14-17) (“the sheet 50 has a wire mesh reinforcement 70 sandwich[ed] between polyurethane layers 71 and 72”); *see also id.* at 11 and Lehr, col. 3, ll. 41-44 (“[t]he sheet **50** is hung over support member **52** The sheet **50** is folded around support member **52** with a slight overlap”).

The Examiner also found that Borgfeldt teaches a ladder comprising a conveyor-type material in accordance with the Specification's definition of “convey[o]r belting” because its woven material is also strong yet flexible (Ans. 9-10, 11-12, 13). The Examiner concluded it would have been “within the scope of one of ordinary skill in the art to select from known available materials for their known properties and advantages” (*Id.* at 12) and that “one of ordinary skill in the art could have combined the elements [of Borgfeldt and Lehr] as claimed, or substituted one known element for another, using known methods with no change in their respective functions [and] [s]uch a combination would have yielded predictable results to one of ordinary skill in the art” (*Id.* at 14).

Appellant contends that the cited references fail to teach “reinforced polymeric *conveyor-type* belting material” as recited in the claims. Claims App’x. (emphasis added); Br. 5-6, 9. In particular, Appellant contends that “[n]o one has previously conceived of using polymeric conveyor-belting material for this purpose [i.e., a belting ladder], and prior art of record would not lead anyone to do so” (Br. 6) such that “there is no motivation to combine the cited references” (*Id.* at 5). Appellant further contends that “the rejections use both improper hindsight and the teaching of [A]ppellant’s patent application itself.” *Id.* at 10. We agree with the Examiner that under Appellant’s specific definition of conveyor belting set forth in the Specification, both Borgfeldt and Lehr teach “conveyor-type belting material” and that the Examiner’s proposed combination of predictably substituting Lehr’s polymeric conveyor-type belting material for Borgfeldt’s woven conveyor-type belting material has a rational underpinning and is not based on improper hindsight reasoning. *See KSR Int’l Co. v. Teleflex, Inc.*, 550 U.S. 398, 416 (2007) (citing *In re Kahn*, 441 F.3d 977, 988 (Fed. Cir. 2006)).

Appellant next contends that “the Examiner failed to give sufficient attention to the *detailed factual evidence* of unobviousness provided in the Rule 132 declarations of Edward Eeg and John Meiers.” Br. 6. We consider anew the issues of obviousness under 35 U.S.C. § 103, carefully evaluating and weighing both the evidence relied upon by the Examiner and the evidence provided by Appellant. *See In re Piasecki*, 745 F.2d 1468, 1472 (Fed. Cir. 1984); *Stratoflex Inc. v. Aeroquip Corp.*, 713 F.2d 1530, 1538 (Fed. Cir. 1983).

First, Appellant contends that the Declaration of Edward Eeg (hereinafter “Eeg Declaration”) establishes that Appellant’s claimed use of conveyor belting material as a ladder “is completely improbable and unexpected” because “conveyor belts are subjected to different stresses [normal to the belting surface] than those applicable in [A]ppellant’s inventive belting ladder [parallel to the belting surface].” Br. 7; *see also* Eeg Declaration, paras. 11, 14.

However, the Eeg Declaration fails to provide comparative data showing substantially improved results in connection with withstanding stress parallel to the belting surface for Appellant’s conveyor belt vis-à-vis the disclosures of Borgfeldt and Lehr. *See In re De Blauwe*, 736 F.2d 699, 705 (Fed. Cir. 1984) (stating “[w]hen an article is said to achieve unexpected (i.e. superior) results, those results must logically be shown as superior *compared* to the results achieved with other articles”). In other words, the Eeg Declaration fails to establish that withstanding stress parallel to the belting surface is due to features recited in claim 1 and not present in the combination of Borgfeldt and Lehr. On the other hand, the Examiner has provided strong evidence of obviousness, including the predictable substitution of Lehr’s material for Borgfeldt’s material.

Second, Appellant contends that the Declaration of John Meiers (hereinafter “Meiers Declaration”) supports that “‘others have tried and failed to solve’ the long-standing need for a fire escape which has ‘the capability for long-time storage to be available decades after installation, . . . the stability allowing for relatively confident use by an escaping person . . . [and] the flexibility for compact storage.’” Br. 8 (quoting Meiers

Declaration 4, para. 10); *see also* Meiers Declaration, paras. 14, 15.² The Meiers Declaration does not provide evidence of the efforts and resources expended during the time corresponding to the length of need in attempts to solve the problem, or that others specifically tried and failed to solve the problem. Ans. 16; *see also Railroad Dynamics, Inc. v. Stuki Co.*, 579 F. Supp. 353, 363 (E.D. Pa. 1983), *aff'd* 727 F.2d 1506 (Fed. Cir. 1984), *cert. denied* 105 U.S. 220 (1984). It appears that Borgfeldt's fire escape has the capability for long-term storage (the band is made of coarse cotton or wool with selvage at each edge to prevent it from unraveling) (Borgfeldt, ll. 49-53); stability for confident use by an escaping person (the band "give[s] additional insurance of safety, and enabling even the most unskilled to use the apparatus without difficulty") (Borgfeldt, ll. 43-46); and flexibility for compact storage (the band is "a flexible escape that should have all the advantages of a rope") (Borgfeldt, ll. 17-18), such that these needs were satisfied before invention by Appellant. *See Newell Co. v. Kenney Mfg. Co.*, 864 F.2d 757, 768 (Fed. Cir. 1988). As such, Appellant failed to provide objective evidence sufficient to establish the existence of a long-felt need or to establish that Appellant's claimed invention satisfied any such long-felt need.

² We have considered Appellant's contention that the Meiers Declaration points out that "any modification of the Lehr device to have a greater gravity-defined dimension with orderly aligned same-size apertures would be directly against the teachings and the essence of the Lehr device" (Br. 9), but find such contention unpersuasive because it fails to address the rejection as articulated by the Examiner which relies on modification of the Borgfeldt device, not the Lehr device.

While we give weight to the evidence offered by Appellant in an effort to prove unexpected results and long-felt need, we conclude that the Examiner's evidence of obviousness outweighs Appellant's evidence of nonobviousness. *See In re Fenton*, 451 F.2d 640, 643 (CCPA 1971) (the court balanced the Patent Office's case against the strength of appellant's objective evidence of non-obviousness); *see also Leapfrog Enters., Inc. v. Fisher-Price, Inc.*, 485 F.3d 1157, 1162 (Fed. Cir. 2007) ("given the strength of the prima facie obviousness showing, the evidence on secondary considerations was inadequate to overcome a final conclusion that [the claimed subject matter] would have been obvious").

For the foregoing reasons, we determine that the Examiner did not err in concluding that the subject matter of claims 1-4, 6, and 10-14 would have been obvious from the combination of Borgfeldt, Lehr, and Tucker, and we sustain the rejection of claims 1-4, 6, and 10-14 under 35 U.S.C. § 103(a).

*Rejection of claims 11-14 and 19 under
35 U.S.C. § 103(a) as unpatentable over Borgfeldt, Lehr, Tucker, and May*

Appellant's arguments in support of the patentability of claims 11-14 and 19 relate to the perceived deficiencies in the combined teachings of Borgfeldt, Lehr, and Tucker. Br. 10. Since we have found no such deficiencies in the combination of Borgfeldt, Lehr, and Tucker, we determine that the Examiner did not err in concluding that the subject matter of claims 11-14 and 19 would have been obvious from the combination of Borgfeldt, Lehr, Tucker, and May, and we sustain the rejection of claims 11-14 and 19 under 35 U.S.C. § 103(a).

*Rejection of claim 17 under 35 U.S.C. § 103(a)
as unpatentable over Borgfeldt, Lehr, Tucker, and Murphy*

Appellant's arguments in support of the patentability of claim 17 relate to the perceived deficiencies in the combined teachings of Borgfeldt, Lehr, and Tucker. Br. 11. Since we have found no such deficiencies in the combination of Borgfeldt, Lehr, and Tucker, we determine that the Examiner did not err in concluding that the subject matter of claim 17 would have been obvious from the combination of Borgfeldt, Lehr, Tucker, and Murphy, and we sustain the rejection of claim 17 under 35 U.S.C. § 103(a).

*Rejection of claims 11-14 under 35 U.S.C. § 103(a)
as unpatentable over Borgfeldt, Lehr, Tucker, and Melville*

Appellant's arguments in support of the patentability of claims 11-14 relate to the perceived deficiencies in the combined teachings of Borgfeldt, Lehr, and Tucker. Br. 11. Since we have found no such deficiencies in the combination of Borgfeldt, Lehr, and Tucker, we determine that the Examiner did not err in concluding that the subject matter of claims 11-14 would have been obvious from the combination of Borgfeldt, Lehr, Tucker, and Melville, and we sustain the rejection of claims 11-14 under 35 U.S.C. § 103(a).

DECISION

The Examiner's rejection of claims 1-6, 10-14, and 17-19 under 35 U.S.C. § 112, second paragraph is REVERSED.

The Examiner's rejections of claims 1-4, 6, 10-14, 17, and 19 under 35 U.S.C. § 103(a) is AFFIRMED.

Appeal 2011-000560
Application 11/207,409

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).

AFFIRMED-IN-PART

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