

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

CERRO WIRE, INC.
Requester and Respondent

v.

SOUTHWIRE COMPANY
Patent Owner and Appellant

Appeal 2014-005956
Reexamination Control 95/000,594
Technology Center 3900
Patent 7,749,024

Before RICHARD M. LEBOVITZ, MARC S. HOFF, and ERIC B. CHEN,
Administrative Patent Judges.

CHEN, *Administrative Patent Judge.*

DECISION ON APPEAL

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Patent Owner Southwire Company appeals under 35 U.S.C. § 134(b) and 35 U.S.C. § 315(a) the Examiner's final decision to reject claims 1-15. Third-Party Requester Encore Wire Corp. urges that the Examiner's decision must be affirmed. We have jurisdiction under 35 U.S.C. §§ 134 and 315. We affirm.

STATEMENT OF THE CASE

A request for *inter partes* reexamination of U.S. Patent No. 7,749,024 B2 (the '024 patent), assigned Reexamination Control No. 95/000,594, was filed on November 17, 2010, by Third-Party Requester Cerro Wire, Inc.

The '024 patent, entitled "Method of Manufacturing THHN Electrical Cable, and Resulting Product, with Reduced Required Installation Pulling Force," issued July 6, 2010, to Terry Chambers, Randy D. Kummer, John Armstrong, Philip Sasse, David Reece, and Hai Lam, based on Application No. 11/675,441, filed February 15, 2007. The '024 patent is also a continuation-in-part of Application No. 11/120,487, filed May 3, 2005, now abandoned, which is a continuation-in-part of Application No. 10/952,294, filed September 28, 2004, now U.S. Patent No. 7,411,129.

The '024 patent is assigned to Southwire Company, the real party in interest.

Related Litigation

The '024 patent has been asserted in several patent infringement suits, *Encore Wire Corp. v. Southwire Co.*, No. 3:10-cv-86 (N.D. Ga.

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July 6, 2010), *Cerro Wire Inc. v. Southwire Co.*, No. 3:10-cv-87 (N.D. Ga. July 6, 2010) and *Southwire Co. v. Encore Wire Corp.*, No. 6:10-cv-330 (E.D. Tex. July 6, 2010). (PO App. Br. 1-2.) The cases have been either terminated or dismissed.

The Claims

The original patent claims were amended during the reexamination proceedings. Independent claims 1, 4, and 6 are exemplary, with disputed limitations in italics, and underlining to show claim amendments:

1. In a THHN electrical cable of the type comprising a conductor core and sheath surrounding said conductor core, in which the sheath has at least its exterior portion formed of nylon material, an improvement in which a erucamide pulling lubricant, introduced in said material during the manufacture of the cable but prior to the formation of said sheath, either permeates throughout, or migrates through, at least said exterior portion of the sheath to be available at the exterior surface of said sheath as said THHN cable is pulled along an installation surface, through building passageways and enclosures and in a concentration sufficient to reduce the required installation pulling force *for installing the THHN cable through building passageways and enclosures*.

4. An improved process of manufacturing a finished THHN cable assembly of the type comprising a central conductor core and a surrounding sheath of at least one outer layer of nylon material defining the exterior surface of the finished cable, said process comprising: (a) combining a silicone based pulling lubricant with said nylon material prior to the formation of said outer layer of said sheath, *the silicone based pulling lubricant being of a concentration sufficient to reduce the required installation pulling force of the cable during its installation through building passageways and enclosures*, and further of the type which permeates throughout the at least one outer layer of the sheath to be available at the said exterior surface as said THHN

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cable is pulled along an installation surface through building passageways and enclosures; and (b) extruding said combined silicone based pulling lubricant and said nylon material to surround said central conductor core with at least said outer layer.

6. The process as defined by claim 4 *in which the concentration, by weight, of the silicone based pulling lubricant is at least 9% by weight.*

The Rejections

Patent Owner appeals the Examiner's decision to reject all the pending claims as follows:

1. Claims 1-15 stand rejected under 35 U.S.C. § 102(b) as anticipated by Mehta (US 6,080,489; June 27, 2000).

2. Claims 1-15 stand rejected under 35 U.S.C. § 103(a) as obvious over Mehta and Wiles (John Wiles, *Clarifying Confusing Cables*, 66 HOME POWER 82-84 (1998)).

3. Claims 1-15 stand rejected under 35 U.S.C. § 103(a) as obvious over Mehta and Hofmann (US 5,856,405; Jan. 5, 1999).

4. Claims 1-15 stand rejected under 35 U.S.C. § 103(a) as obvious over Mehta and Chu-Ba (US 5,460,885; Oct. 24, 1995).

5. Claims 1-15 stand rejected under 35 U.S.C. § 103(a) as obvious over Rinehart (US 5,356,710; Oct. 18, 1994) and Mehta.

6. Claims 1-15 stand rejected under 35 U.S.C. § 103(a) as obvious over Rinehart and Ishikawa (JP 1166410 A; June 30, 1989).

7. Claims 1-15 stand rejected under 35 U.S.C. § 103(a) as obvious over Rinehart, Berry (US 5,227,080; July 13, 1993), and Hase (US 6,646,205; Nov. 11, 2003).

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8. Claims 1-15 stand rejected under 35 U.S.C. § 103(a) as obvious over Wiles, Berry, and Hase.

9. Claims 1-15 stand rejected under 35 U.S.C. § 103(a) as obvious over Hofmann, Berry, and Hase.

10. Claims 1-15 stand rejected under 35 U.S.C. § 103(a) as obvious over Chu-Ba, Berry, and Hase.

11. Claims 1-15 stand rejected under 35 U.S.C. § 103(a) as obvious over Rinehart, Aoki (US 4,952,021; Aug. 28, 1990), and Hase.

12. Claims 1-15 stand rejected under 35 U.S.C. § 103(a) as obvious over Wiles, Aoki, and Hase.

13. Claims 1-15 stand rejected under 35 U.S.C. § 103(a) as obvious over Hofmann, Aoki, and Hase.

14. Claims 1-15 stand rejected under 35 U.S.C. § 103(a) as obvious over Chu-Ba, Aoki, and Hase.

15. Claims 1-3, 8, and 13-15 stand rejected under 35 U.S.C. § 103(a) as obvious over Rinehart, Marquis (Richard E. Marquis & Adam J. Maltby, *An Introduction to Fatty Acid Amide Slip and Anti-Blocking Agents*, POLYMERS, LAMINATIONS & COATINGS CONF. (1998)), and Hase.

16. Claims 1-3, 8, and 13-15 stand rejected under 35 U.S.C. § 103(a) as obvious over Chu-Ba, Marquis, and Hase.

17. Claims 1-3, 8, and 13-15 stand rejected under 35 U.S.C. § 103(a) as obvious over Hofmann, Marquis, and Hase.

18. Claims 1-3, 8, and 13-15 stand rejected under 35 U.S.C. § 103(a) as obvious over Wiles, Marquis, and Hase.

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19. Claims 4-7 and 9-12 stand rejected under 35 U.S.C. § 103(a) as obvious over Rinehart and Dow Corning (Dow Corning Corporation, DOW CORNING® MB50-011 Masterbatch (1997-99)).

20. Claims 4-7 and 9-12 stand rejected under 35 U.S.C. § 103(a) as obvious over Wiles, Dow Corning, and Hase.

21. Claims 4-7 and 9-12 stand rejected under 35 U.S.C. § 103(a) as obvious over Hofmann, Dow Corning, and Hase.

22. Claims 4-7 and 9-12 stand rejected under 35 U.S.C. § 103(a) as obvious over Chu-Ba, Dow Corning, and Hase.

23. Claims 4-7 and 9-12 stand rejected under 35 U.S.C. § 103(a) as obvious over Rinehart, Kamioka (JP 9045143 A; Feb. 14, 1997), and Hase.

24. Claims 4-7 and 9-12 stand rejected under 35 U.S.C. § 103(a) as obvious over Wiles, Kamioka, and Hase.

25. Claims 4-7 and 9-12 stand rejected under 35 U.S.C. § 103(a) as obvious over Hofmann, Kamioka, and Hase.

26. Claims 4-7 and 9-12 stand rejected under 35 U.S.C. § 103(a) as obvious over Chu-Ba, Kamioka, and Hase.

27. Claims 4-7 and 9-12 stand rejected under 35 U.S.C. § 103(a) as obvious over Rinehart, Flum '380 (US 4,416,380; Nov. 22, 1983), and Hase.

28. Claims 4-7 and 9-12 stand rejected under 35 U.S.C. § 103(a) as obvious over Wiles, Flum '380, and Hase.

29. Claims 4-7 and 9-12 stand rejected under 35 U.S.C. § 103(a) as obvious over Hofmann, Flum '380, and Hase.

30. Claims 4-7 and 9-12 stand rejected under 35 U.S.C. § 103(a) as obvious over Chu-Ba, Flum '380, and Hase.

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31. Claims 4-7 and 9-12 stand rejected under 35 U.S.C. § 103(a) as obvious over Rinehart, Flum '949 (US 4,454,949; June 19, 1984), and Hase.

32. Claims 4-7 and 9-12 stand rejected under 35 U.S.C. § 103(a) as obvious over Wiles, Flum '949, and Hase.

33. Claims 4-7 and 9-12 stand rejected under 35 U.S.C. § 103(a) as obvious over Hofmann, Flum '949, and Hase.

34. Claims 4-7 and 9-12 stand rejected under 35 U.S.C. § 103(a) as obvious over Chu-Ba, Flum '949, and Hase.

35. Claims 4-7 and 9-12 stand rejected under 35 U.S.C. § 103(a) as obvious over Rinehart, Bustos (US 5,614,288; Mar. 25, 1997), and Hase.

36. Claims 4-7 and 9-12 stand rejected under 35 U.S.C. § 103(a) as obvious over Wiles, Bustos, and Hase.

37. Claims 4-7 and 9-12 stand rejected under 35 U.S.C. § 103(a) as obvious over Hofmann, Bustos, and Hase.

38. Claims 4-7 and 9-12 stand rejected under 35 U.S.C. § 103(a) as obvious over Chu-Ba, Bustos, and Hase.

39. Claims 1-15 stand rejected under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement.

40. Claims 1-15 stand rejected under 35 U.S.C. § 112, first paragraph, as failing to comply with the enablement requirement.

41. Claims 1-15 stand rejected under 35 U.S.C. § 112, second paragraph, as indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Patent Owner relied upon the following declarations in rebuttal to the Examiner's proposed rejection:

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Declaration under 37 C.F.R. § 1.132 of Philip A. Sasse, dated June 4, 2010, accompanied by Exhibits 1-3 (“Sasse Declaration”).

Declaration under 37 C.F.R. § 1.132 of William N. Unertl, Ph.D., dated February 25, 2011 (submitted by Requester) (“Unertl Declaration”).

ANALYSIS

§ 102 Rejection – Mehta

Claims 1-5, 8-10, and 13-15

The Examiner interpreted independent claim 1 as drafted in *Jepson* format and thus, the Examiner found that the recitation of “a THHN electrical cable” was implicitly admitted as conventional or known in the prior art. (RAN 41.) Similarly, the Examiner also interpreted independent claim 4 as drafted in *Jepson* format and thus, the Examiner found that the recitation of “a finished THHN cable assembly” was implicitly admitted as conventional or known in the prior art. (RAN 43.)

The Examiner found that Mehta describes the limitation “a concentration sufficient to reduce the required installation pulling force for installing the THHN cable through building passageways and enclosures,” as recited in independent claim 1. (RAN 42.) Similarly, the Examiner found that Mehta describes the limitation “the silicone based pulling lubricant being of a concentration sufficient to reduce the required installation pulling force of the cable during its installation through building passageways and enclosures,” as recited in independent claim 4. (RAN 43.) In particular, the Examiner found that “Mehta discloses exactly the same method steps, material compositions, [and] products as those recited in claims 1-15 of the ’024 patent, and thus the properties of the product must be

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explicitly or inherently the same.” (RAN 19.) The Examiner also found that “it is clear that lower coefficient of friction will always result in lower pulling force as long as other physical properties of the cable (i.e. rigidity, abrasion resistance, etc.) are remain same by the materials modifications required to reduce the coefficient of friction,” and “[i]n Mehta, the coefficient of friction is reduced substantially while other properties are little affected.” (RAN 20.) The Examiner’s determination that the claims are anticipated is supported by a preponderance of the evidence.

Mehta relates to thermoplastic compositions “having reduced coefficient of friction, consistent coefficient of friction over time, increased hydrophobicity, and improved abrasion resistance.” (Col. 1, ll. 6-9.) Mehta describes a thermoplastic resin (A) (e.g., nylon) (col. 1, ll. 48-51) that includes a siloxane blend (B) (col. 2, ll. 28-30). Mehta explains that the thermoplastic compositions can further contain a lubricant “up to about 30 percent by weight” such as erucamide. (Col. 3, l. 63 to col. 4, l. 20.) Mehta also explains that the “siloxane blend (B) . . . added to the thermoplastic resin (A) . . . serves as a surface modifier” such that “the resulting extrudate has a reduced coefficient of friction, consistent coefficient of friction over time, and improved abrasion resistance over films not containing siloxane blend (B).” (Col. 4, ll. 22-28.) Mehta further explains that its method of extrusion is applicable in the production of wire or cable extrusion. (Col. 4, ll. 42-45.)

Where the claimed and prior art products are identical or substantially identical in structure or composition, or are produced by identical or substantially identical processes, a prima facie case of either anticipation or

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obviousness has been established. *In re Best*, 562 F.2d 1252, 1255 (CCPA 1977). Thus, because Mehta describes production of a wire or cable that is extruded from a thermoplastic resin (e.g., nylon) (col. 1, ll. 47-54) containing a lubricant (e.g., siloxane and erucamide) that acts as a surface modifier such that “the resulting extrudate has a reduced coefficient of friction” (col. 4, ll. 22-28), which is the same one as claimed, the preponderance of the evidence supports the Examiner’s finding that the lubricants of Mehta (e.g., siloxane and erucamide) would achieve the claimed purpose.

First, Patent Owner argues that “Mehta is directed to the use of siloxanes as processing aids with a focus on application to films.” (PO App. Br. 9.) Similarly, Patent Owner argues that “there is no factual evidence showing that the specifically blended siloxane of Mehta does more than affect the COF of the raw material when incorporated with a linear low density polyethylene *in a film*.” (PO App. Br. 10.) However, Mehta expressly states that this method is applicable in the production of wire or cable extrusion (col. 4, ll. 42-45) and accordingly, the extruded cable of Mehta would also exhibit a reduction in coefficient of friction.

Second, Patent Owner also argues that “Mehta teaches nothing regarding pulling force of the claimed THHN cable.” (PO App. Br. 10.) However, as discussed previously, because Mehta describes production of a wire or cable that is extruded from a thermoplastic resin (e.g., nylon) (col. 1, ll. 47-54) containing a lubricant (e.g., siloxane and erucamide) that acts as a surface modifier such that “the resulting extrudate has a reduced coefficient of friction” (col. 4, ll. 22-28), which is the same one as claimed, a prima

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facie case of either anticipation or obviousness has been established. Moreover, the claims do not require the cable to be pulled. Rather, the claims only require that, when the cable is pulled along the installation surface, the lubricant reduces the pulling force. Because the amounts and type of lubricant are the same, it would have been reasonably expected that the lubricant would achieve the claimed function.

Third, Patent Owner argues that “[a]s demonstrated by Appellant’s expert, Philip Sasse, a lower COF of a material measured by the sled test such as that used in Mehta does not always result in a reduced installation pulling force of a cable as required by the claimed invention.” (PO App. Br. 11; *see also* PO Reb. Br. 6.) In particular, Patent Owner argues that “Exhibit 2 of the Declaration of Philip A. Sasse . . . shows blends of PVC polymer containing erucyl stearamide, oleamide and erucamide lubricants with increasing coefficients of friction of 0.40, 0.42 and 0.43, respectively, as measured using a Dynisco (sled) tester.” (PO App. Br. 11.) However, Patent Owner’s arguments and evidence are not commensurate in scope with claims 1 and 4, because the claims require and a nylon exterior surface, rather than PVC, which was used in the Sasse Declaration. Furthermore, claim 4 requires “a silicone based pulling lubricant,” rather than erucyl stearamide, oleamide and erucamide lubricants. In addition, the “Background of the Invention” section of the ’024 patent acknowledges that installation of electrical cable through narrow conduits, raceways, cabletrays, or passageways “becomes problematic since the exterior surface of the cable sheath normally has a high coefficient of friction, therefore requiring a large pulling force” (col. 1, ll. 46-49) and “the general industry

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practice has been to coat the exterior surface of the cable sheath with a pulling lubricant at the job site in order to reduce the coefficient of friction between this surface and the conduit walls or like surfaces” (col. 1, ll. 56-60).

Last, Patent Owner, in reference to paragraph [0008] of the Untertl Declaration, argues that “since the COF actually describes a system of conditions rather than a single body, simply lowering the COF of a material according to the sled test (as in Mehta) does not necessarily mean that a cable jacketed with that material will also have a lower COF” and “Dr. Untertl also conceded that the sled test has limited application to the pulling conditions under which THHN cable is installed in buildings.” (PO App. Br. 13; *see also* PO Reb. Br. 6.) Again, Patent Owner’s argument is not commensurate in scope with claims 1 and 4, because the claims do not require measurement of a precise value for coefficient of friction.

Accordingly, we affirm the Examiner’s decision to reject claims 1-5, 8-10, and 13-15 under 35 U.S.C. § 102(a) as anticipated by Mehta.

Claims 6, 7, 11, and 12

The Examiner found that Mehta describes the limitation “in which the concentration, by weight, of the silicone based pulling lubricant is at least 9% by weight,” as recited in dependent claim 6. (RAN 44.) Similarly, the Examiner found that Mehta describes the limitation “in which the concentration, by weight, of the high molecular weight silicone oil is at least 9% by weight,” as recite in dependent claim 7. (*Id.*) We agree with the Examiner’s determination.

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As discussed previously, Mehta describes a thermoplastic resin (A) (e.g., nylon) (col. 1, ll. 48-51) that includes a siloxane blend (B) (col. 2, ll. 28-30). Mehta explains that “[h]igher amounts of component (B) (up to 50 parts) can be used to form a masterbatch (or concentrate) of the composition for further processing” and “[f]or finished products, it is preferred that about 0.5 to about 7 parts by weight of component (B) are used for each 100 parts by weight of component (A).” (Col. 3, ll. 24-29.) Thus, because Mehta explains that up to 50 parts per 100 parts (i.e., from zero to 50%) of siloxane blend can be added to the thermoplastic resin, Mehta describes the limitations “in which the concentration, by weight, of the silicone based pulling lubricant is at least 9% by weight” and “in which the concentration, by weight, of the high molecular weight silicone oil is at least 9% by weight.”

Patent Owner argues that “[s]imple math . . . reveals that at best, Mehta discloses a silicone-based lubricant concentration of *less than 7%* by weight” and “[l]ess than 7%, is not the claimed *at least 9%*.” (PO App. Br. 15.) However, as discussed previously, Mehta explains that up to 50% siloxane blend can be used and 0.5 to 7% siloxane blend is only a preferred embodiment.

Accordingly, we affirm the Examiner’s decision to reject claims 6, 7, 11, and 12 under 35 U.S.C. § 102(a) as anticipated by Mehta.

§ 103 Rejections

We do not reach the additional cumulative rejections of claims 1-15 under 35 U.S.C. § 103(a) as obvious over various combinations of Mehta,

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Hofmann, Chu-Ba, Rinehart, Ishikawa, Berry, Hase, Aoki, Marquis, Dow Corning, Kamioka, Flum '380, Flum '949, and Bustos. Affirmance of the anticipation based rejection discussed previously renders it unnecessary to reach the remaining obviousness rejections, as claims 1-15 have been addressed and found unpatentable. *Cf. In re Gleave*, 560 F.3d 1331, 1338 (Fed. Cir. 2009) (not reaching additional obviousness rejections).

§ 112, First Paragraph Rejections

Written Description

The Examiner adopted Requester's argument that "[t]he specification of the '024 patent does not provide any description of the parameters of such building passageways and enclosures, such as whether they are straight, curved, or include multiple bends" and "[t]he specification also does not define the relationship between the cable and the building passageways and enclosures, for example, the size of the passageway or enclosure compared with the size of the cable being installed, or the material from which the passageway or enclosure is formed." (RAN 39; Requester Resp. to Office Action 3, filed Nov. 18, 2011.) Accordingly, the Examiner found that the "the limitation ['through building passageways and enclosures'] lacks written description support in the '024 patent disclosure." (RAN 39.) We do not agree with the Examiner's determination.

In the "Background of the Invention" section, the '024 patent discloses that "[i]nstallation of electrical cable often requires that it be pulled through tight spaces or small openings in, and in engagement with, narrow conduits, raceways, cabletrays, or passageways in rafters or joists" which is

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“problematic since the exterior surface of the cable sheath normally has a high coefficient of friction, therefore requiring a large pulling force.” (Col. 1, ll. 46-52.) The ’024 patent also discloses that “the general industry practice has been to coat the exterior surface of the cable sheath with a pulling lubricant at the job site in order to reduce the coefficient of friction between this surface and the conduit walls or like surfaces, typically using vaselines or lubricants.” (Col. 1, ll. 56-59.) The ’024 patent also discloses that “[a] pulling lubricant is a lubricant that appears at the outside surface of the sheath of the cable and is effective to lower the surface coefficient of friction such as to reduce the force necessary to pull the cable along or through building surfaces or enclosures.” (Col. 2, ll. 20-24.) Figure 4 of the ’024 patent illustrates a “coefficient of friction test apparatus . . . to give a consistent way to determine the input values necessary to use the industry-standard program published by PolyWater Corporation to calculate a real-world coefficient of friction for a given cable being pulled in conduit.” (Col. 4, ll. 35-41.)

Claim 1 recites “a concentration sufficient *to reduce the required installation pulling force* for installing the THHN cable *through building passageways and enclosures*” (emphases added). Likewise, claim 4 recites “the silicone based pulling lubricant *being of a concentration sufficient to reduce the required installation pulling force of the cable* during its installation *through building passageways and enclosures*” (emphases added). Accordingly, claims 1 and 4 implicitly require that a comparison be made between cable that lacks the lubricant or comprises it in insufficient quantities to achieve the reduced pulling force when pulled through the same

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“building passageways and enclosures”, with the only difference between such THHN cables being the concentration of erucamide or silicone based pulling lubricant in the nylon material. Thus, in view of the disclosure in the ’024 patent that pulling a cable through passageways or enclosures can be problematic due to a high coefficient of friction and the disclosure of a testing apparatus to calculate the coefficient of friction during installation of a cable having a pulling lubricant, the ’024 patent provides adequate written description support for the limitation “through building passageways and enclosures.” The Examiner’s requirement that the Specification of the ’024 patent provide more detailed description of the building passageways and enclosures is improper, because the latter are conventional and the claim does not require the installation surface to be of a specific material, texture, or architecture.

Accordingly, we reverse the Examiner’s decision to reject claims 1-15 under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement.

Enablement

The Examiner adopted Requester’s argument that “[t]he specification of the ’024 patent does not enable one of ordinary skill in the art to determine what a sufficient amount of lubricant is other than an amount of lubricant that reduces the coefficient of friction” and “to the extent the phrase ‘through building passageways and enclosures’ disconnects the reduction installation pulling force from a reduction in coefficient of friction

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. . . the specification is not enabling.” (RAN 40; Requester Resp. to Office Action 4, filed Nov. 18, 2011.) The Examiner further found that:

[t]he phrase “through building passageways and enclosures” used in claims 1, 4, 8-9 and 13 disconnects the reduction in installation pulling force from a reduction in coefficient of friction since the specification of the ’024 patent does not enable one of ordinary skill in the art to determine what a sufficient amount of lubricant is other than, an amount of lubricant that reduces the coefficient of friction.

(RAN 40.) We do not agree with the Examiner’s determination.

Claims 1 and 4 require that the installation pulling force is reduced by the lubricant. Thus, implicitly, the claims require the pulling force to be reduced in comparison to a cable either lacking the claimed lubricant or comprising an insufficient amount to achieve this effect. The Specification of the ’024 patent discloses a coefficient of friction test apparatus that enables the limitation “through building passageways and enclosures.”

Accordingly, we reverse the Examiner’s decision to reject claims 1-15 under 35 U.S.C. § 112, first paragraph, as failing to comply with the enablement requirement.

§ 112, Second Paragraph Rejection

The Examiner adopted Requester’s argument that “[t]he claim amendments violate the tenants of 35 U.S.C. § 112, second paragraph, because they do not set an objective standard for determining infringement” and “the recitation of the installation is ‘through building passageways and enclosures’ does not provide the necessary objective standard.” (RAN 40-41; Requester Resp. to Office Action 2, filed Nov. 18, 2011.) We do not agree with the Examiner’s determination.

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Again, claims 1 and 4 only require a comparison of multiple structurally identical THHN cables (i.e., the same thickness and rigidity) pulled through the same “building passageways and enclosures”, with the only difference between such THHN cables being the concentration of erucamide or silicone based pulling lubricant in the nylon material. Thus, claims 1 and 4 neither require that the pulling force be reduced by specific amount, nor do the claims not require the calculation of a precise coefficient of friction. Accordingly, the coefficient of friction test apparatus disclosed in the '024 patent is sufficient to objectively determine “a concentration sufficient to reduce the required installation pulling force for installing the THHN cable through building passageways and enclosures” or “the silicone based pulling lubricant being of a concentration sufficient to reduce the required installation pulling force of the cable during its installation through building passageways and enclosures.”

Accordingly, we reverse the Examiner’s decision to reject claims 4-7 and 9-12 under 35 U.S.C. § 112, second paragraph, as indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

DECISION

The Examiner’s decision to reject claims 1-15 under U.S.C. § 102(a) is affirmed.

The Examiner’s decision to reject claims 1-15 under 35 U.S.C. § 112, first paragraph, is reversed.

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The Examiner's decision to reject claims 1-15 under 35 U.S.C. § 112, second paragraph, is reversed.

Requests for extensions of time in this *inter partes* reexamination proceeding are governed by 37 C.F.R. § 1.956. *See* 37 C.F.R. § 41.79.

AFFIRMED

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