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 2015-004351
Reexamination Control 95/000,696
Patent 7,557,301 C1
Technology Center 3900

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

CHEN, *Administrative Patent Judge*.

DECISION ON REQUEST FOR REHEARING

On October 29, 2015, Patent Owner Southwire Company requested rehearing under 37 C.F.R. § 41.79(a) of the Decision on Appeal entered September 29, 2015 ("Decision"), which affirmed the Examiner's final decision to reject claims 1–42.

On November 30, 2015, Third-Party Requester Cerro Wire Corporation filed comments under 37 C.P.R. § 41.79(c) in opposition to Patent Owner's request for rehearing.

The Request for Rehearing is *granted-in-part*.

DISCUSSION

First, Patent Owner argues "Summers never discloses what amount of pulling force reduction its fiber optic cable achieves" and "also never discusses which of the various factors noted above contribute to a reduced pulling force, or by how much, if at all." (PO Req. for Reh'g 6.) Accordingly, Patent Owner argues,

> [g]iven that all of the independent claims of Summers are limited to the "surface irregularities" for reducing the contact area (and tellingly do not recite friction reducing additives), it seems probable that at least Summers himself thought that the surface irregularities were the most important factor, and indeed this seems to be the entire thrust of the Summers patent.

(*Id.*) Requester disagrees and argues "the argument in the PO Request that Summers does not expressly disclose the 30% reduction characteristic is irrelevant, and should be entirely disregarded, because it does not address the basis for the rejection." (Requester Comments 3 (citation omitted).)

As discussed on our Decision (Dec. 8–9), the Examiner adopted (RAN 58–62) Requester's argument that:

> [t]he finished electrical cable of Summers in view of Dow in further view of UL-719 has the characteristic that an amount of force required to install said cable through corresponding holes . . . is at least about a 30% reduction in comparison to an amount of force required to install a non-lubricated cable of the same cable type and size through corresponding holes in said arrangement

(Request for Reexamination 30–31) and "[t]his characteristic is an inherent result of the cable being made in accordance with the method steps" (*id.* at 31). Accordingly, Patent Owner presents new arguments not raised in the Briefs before the Board, because the original basis for the rejection was that the combination of Summers, Dow, and UL-719 inherently teaches the limitation "the finished electrical cable having the characteristic that an amount of force required to install said cable . . . is at least about a 30% reduction in comparison to an amount of force required to install a non-lubricated cable of the same cable type and size through corresponding holes in said arrangement." Such new arguments will not be considered. "Arguments not raised in the briefs before the Board and evidence not previously relied upon in the briefs are not permitted in the request for rehearing except as permitted by paragraphs (b)(2) and (b)(3) of this section." 37 C.F.R. § 41.79(b)(1). Patent Owner has not identified a reason for meeting one of these exceptions.

Second, Patent Owner argues "Summers teaches five different factors that could go into reducing pulling force, with the coefficient of friction being only one of them" (PO Req. for Reh'g 6) and "does not say which of these factors contributes how much to a reduction in pulling force, if at all" (*id.* at 6–7). Requester disagrees and argues "Summers plainly states [in

column 3 line 65 to column 4, line 4] that the friction reducing additive reduces the coefficient of friction, as well as the pulling force:

> Cable jackets 45,55 can be formed of a suitable plastic material, for example polyethylene, and, to reduce resistance to a cable pulling force, can include a friction reducing additive therein. The friction reducing additive can function by migrating to the surface of cable jackets 45,55 and lubricating the interface between the cable jackets and virtually any surface of or in the cable passageway.

(Requester Comments 4 (emphasis omitted) (quoting col. 3 l. 65 to col. 4, l. 4).) Accordingly, Requester argues, "[t]he fact that Summers also discloses other aspects that can further reduce pulling force does not detract from this explicit teaching that the friction reducing additive reduces both the coefficient of friction and the pulling force." (*Id.*)

As noted by Requester, Summers explains that "to reduce resistance to a cable pulling force, [cable jackets 45,55] can include a friction reducing additive" which "can function by migrating to the surface of cable jackets 45,55 and lubricating the interface between the cable jackets and virtually any surface of or in the cable passageway" (col. 3 l. 65 to col. 4, l. 4), and thus, implicitly compares cable pulling force for cable jackets 45,55 having a friction reducing additive to cable pulling force for cable jackets 45,55 of similar dimension, without a friction reducing additive. Moreover, although Summers explains in the "Background of the Invention" section that other factors can influence cable pulling force, such as: (i) surface area contact between the cable jacket and cable passageway; (ii) cable weight; (iii) cable flexibility; and (iv) cable size (col. 1, ll. 29–42), Patent Owner has not directed us to an embodiment in Summers in which the pulling force for one cable is compared with a reference cable, in which multiple factors (e.g.,

surface area contact surface area contact between the cable jacket and cable weight) were varied.

Third, Patent Owner argues "the Board engaged in improper picking and choosing in selecting only the data from Mr. Sasse's June 4, 2010 Declaration that allegedly supported the Board's conclusions." (PO Req. for Reh'g 9.) In particularly, Patent Owner argues that "the Board ignored evidence that supported Mr. Sasse's conclusion that there is no *necessary* relationship between the concentration of lubricant added to a polymeric material and that material's coefficient of friction" and "the Board omits critical data from this exhibit, including the 'Mineral Oil' lubricant data that runs directly counter to the Board's conclusion that the trend for the materials tested is that increasing the amount of lubricant in a material decreases that material's coefficient of friction." (*Id.*)

> However, Patent Owner's Appeal Brief argues the following:
>
> Appellant further submits that the Sasse declarations, among others, support Appellant's contention that prior art references that simply suggest some reduced coefficient of friction during processing or on a surface after processing is not the same as what is claimed. In these declarations, *Mr. Sasse described the testing and provided clear support that a surface measurement, or a slip test measurement of a surface does not satisfy what is claimed.*

(PO App. Br. 5 (emphasis added).) Thus, rather than providing citations to the relevant paragraphs of the Sasse Declaration with respect to specific lubricants, Patent Owner only provides a general allegation that "Mr. Sasse described the testing and provided clear support that a surface measurement, or a slip test measurement of a surface does not satisfy what is claimed."

(*See id.*) Furthermore, one relevant portion from paragraph 9 of the Sasse Declaration states the following:

> Each test sample [from Exhibit 1] is the plasticized PVC with the additional lubricant listed, and in the respective percentage listed. The test results shown prove that increased concentrations of a lubricant added to the base polymer do not always result in a decreased coefficient of friction. *This is shown, for example, by the fact that when erucamide, polytetrafluoroethylene (Teflon), zinc sulfate and siloxane lubricants were added to the plasticized PVC*, the coefficient of friction of the resulting lubricated blended polymer initially increased, and certainly did not decrease in accordance with the Examiner's assumption, before additional concentrations lowered the coefficient of friction.

(Sasse Decl. ¶ 9 (emphasis added).) Another relevant portion from paragraph 10 of the Sasse Declaration states the following:

> Specifically, these results [from Exhibit 2] show that *while a blend of a PVC polymer containing erucyl stearamide, oleamide, and erucamide lubricants have respectively increasing, and certainly not decreasing*, measured coefficients of friction of 0.40, 0.42, and 0.43, the corresponding measured required pulling forces have decreasing values of 81 lbs., 73 lbs., and 66 lbs., respectively.

(Sasse Decl. ¶ 10 (emphasis added).) Contrary to Patent Owner's argument that "the Board engaged in improper picking and choosing" (PO Req. for Reh'g 9), Patent Owner's own expert, Mr. Sasse, selectively omitted any discussion of "Mineral Oil" from Exhibit 1 (Sasse Decl. ¶ 9) and any discussion of "EBS wax" from Exhibit 2 (*id.* ¶ 10). Additionally, Patent Owner has failed to explain how the Sasse Declaration, which tests plasticized PVC with selected lubricants (*id.* ¶¶ 9–10) persuasively established "no necessary relationship between the concentration of

lubricant added to a polymeric material and that material's coefficient of friction" (PO Req. for Reh'g 9) when Summers is silent with respect to PVC as a cable jacket material (*see, e.g.*, col. 3, ll. 45–48, 65–66).

Fourth, Patent Owner argues "[t]he Board also seems to misunderstand what tests are shown in Sasse's June 4, 2010 declaration," for example, "the Board states that 'Mr. Sasse used two additional pulling cable tests, which appear to be different than the 'joist pull' test described in paragraph 9 of the Sasse Declaration.'" (PO Req. for Reh'g 10 (citing Dec. 13).) In particular, Patent Owner argues "[p]aragraph[s] 10 and 11 respectively explain that in Sasse's Exhibits 2 and 3, both the coefficient of friction of a material and the required pulling force of cables jacketed with that material are being tested, thus providing that both the coefficient of friction and joist pull tests are being employed." (*Id.*)

Exhibit 2 of the Sasse Declaration indicates that two separately labelled force measurements, "Load Cell Pull Force (lbs.)" and "Tugger Pull Force (lbs.)." Exhibit 3 of the Sasse Declaration indicates a third separately labeled force measurement, "Pulling Force (lbs.)." Because of the inconsistent labeling for such force measurements in Exhibits 2–3 of the Sasse Declaration and Patent Owner's insufficient explanation with respect to such exhibits (*see* PO App. Br. 5), the actual number of tests performed is ambiguous. However, in view of Patent Owner's additional explanation (PO Req. for Reh'g 10) and in view of paragraph 8 of the Sasse Declaration, which states that "wire or cable jacketed with the materials . . . is then threaded through the joist structure, and *pull force data measured using a*

load cell and/or tugger" (emphasis added), we modify our Decision to delete the following sentence from page 13:

> Without adequate explanation, Mr. Sasse used two additional cable pulling tests, which appear to be different than the "joist pull" test described in paragraph 9 of the Sasse Declaration.

Fifth, Patent Owner argues "the Board discounts Sasse's June 4, 2010 declaration for not being sufficiently statistically thorough while at the same time relying on Sasse's Declaration to support its own misguided conclusions that claims 1–42 are obvious" (PO Req. for Reh'g 10), however, "the Board itself was comfortable relying on those same data in supporting the Board's conclusion that the 'general trend' that increasing the weight percentage of a lubricant results in a lower coefficient of friction and pulling force" (*id.* at 11 (footnote omitted)). Requester disagrees and argues "Exhibit 1 of Mr. Sasse's June 4, 2010 Declaration includes data points where the amount of various lubricants did not result in a reduced coefficient of friction" but "[i]nstead of excluding such data points as irrelevant, Mr. Sasse improperly relied on those data points." (Requester Comments 6.)

One relevant passage from paragraph 9 of the Sasse Declaration states:

> The test results shown [from Exhibit 1] prove that *increased concentrations of a lubricant added to the base polymer do not always result in a decreased coefficient of friction.* This is shown, for example, by the fact that when *erucamide, polytetrafluoroethylene (Teflon), zinc sulfate and siloxane lubricants* were added to the plasticized PVC, *the coefficient of friction of the resulting lubricated blended polymer initially increased* . . .

(Sasse Decl. ¶ 9 (emphases added).) Furthermore, Exhibit 1 of the Sasse Declaration, which summarizes test results for the PVC control sample and

select lubricants (i.e., erucamide, polytetrafluoroethylene (Teflon), zinc sulfate, and siloxane), is reproduced below, for only the lowest concentrations of lubricants:

Material/wt%	**COF**
CONTROL	0.495
Erucamide	
0.05%	0.537
Teflon	
0.5%	0.543
Zinc Sulfate	
0.25%	0.496
Siloxane	
0.5%	0.547

(Sasse Decl. Ex. 1.) Without any information with respect to standard deviation, we are unable to determine if the coefficient of frication (COF) for erucamide, Teflon, zinc sulfate, or siloxane is truly greater than the control sample or merely constitutes measurement error. The reference to a "general trend" in our Decision is based upon all data points from Exhibit 1 of the Sasse Declaration (Dec. 12–13), rather than focusing on two closely spaced data points (e.g., COF for the control vs. COF for 0.05% erucamide) in which the standard deviation is unknown, and drawing a conclusion based on these two closely spaced data points.

Sixth, Patent Owner argues "the Board substituted its own judgment for Sasse's" and that "[t]his is improper." (PO Req. for Reh'g 11.) In particular, Patent Owner argues "Mr. Sasse opines that 'there is not

necessarily a correlation between the measured coefficient of friction of the material from which a wire jacket is formed and the measured pulling force required to install that jacketed wire'" and "Mr. Sasse cites several instances in his data where an increase in pulling lubricant concentration decreases the coefficient of friction of a PVC material formed with the same lubricant, but the pulling force of a cable jacketed with that same material actually increases as compared to an unlubricated control cable" but "[t]he Board disregards Sasse's reasoned opinion regarding the data in his Exhibit 3." (*Id.*) Requester disagrees and argues "despite individual data points where the amount of a given lubricant may be too small to exhibit both reduced coefficient of friction and reduced pulling force, the trends are clear that 'sufficient' amounts of the lubricants do reduce both the coefficient of friction and the pulling force." (Requester Comments 7.)

One relevant passage from paragraph 11 of the Sasse Declaration states:

> This data [from Exhibit 3] also *proves that not only is there not necessarily a correlation between the measured coefficient of friction of the material from which a wire jacket is formed and the measured pulling force required to install that jacketed wire* . . . . For example, with respect to a wire jacketed with PVC with no added lubricant (i.e., the control sample) that has a required pulling force of 31.4 lbs., the addition of 0.1 % of oleamide lubricant increased the required pulling force to 33.1 lbs, rather than decreasing it, as would be expected. The increase of oleamide lubricant to 0.2% still resulted in an increase of the required pulling force over the control sample to 32.9 lbs.

(Sasse Decl. ¶ 11 (emphasis added).) Furthermore, Exhibit 3 of the Sasse Declaration, which summaries test results for the PVC control sample and oleamide lubricant, is reproduced below, at the two lowest concentrations:

Sample	**CoF**	**Pulling force (lbs.)**
Control	0.500	31.4
Oleamide		
0.1%	0.487	33.1
0.2%	0.454	32.9

(Sasse Decl. Ex. 3.) Again, without any information with respect to standard deviation, we are unable to determine if the reported decrease in coefficient of friction or the increase in pulling force are truly different than the control sample or merely constitutes measurement error. The reference to a "general trend" in our Decision is based upon all data points from Exhibit 3 of the Sasse Declaration (Dec. 15), rather than focusing on three closely spaced data points, in which the standard deviation is unknown, and drawing a conclusion based on these three closely spaced data points.

Seventh, Patent Owner argues that "the Board simply neglected to consider two of the Sasse Declarations" and "three Sasse Declarations were made of record in this *inter partes* reexamination and submitted with Southwire's Appeal Brief." (PO Req. for Reh'g 12.) Patent Owner further argues that

> [b]oth of these [supplemental] declarations contain highly relevant evidence that conclusively shows (i) there is no necessary relationship between the concentration of lubricant added to a polymeric material and that material's coefficient of friction and (ii) there is no necessary relationship between a reduction in coefficient of friction of a polymeric material and the reduction in pulling force of a cable.

(*Id.*) Requester disagrees and argues "although the PO Request alleges that the Board erred in not explicitly evaluating Mr. Sasse's Exhibits B and C (the September 21, 2010 and December 22, 2010 Declarations), it fails to provide any explanation of how the evidence therein ties to the basis for the rejection" and "Mr. Sasse's Exhibits B and C relate only to the Lee reference (U.S. Patent No. 6,977,280), which is not relied upon in the adopted rejection, or in any of the rejections in this proceeding." (Requester Comments 7.)

Contrary to Patent Owner's arguments, and as noted by Requester, Mr. Sasse's supplemental declarations were submitted for the purpose of overcoming a reference (i.e., Lee) not relied upon as a prior art basis by the Examiner in the current *inter partes* reexamination proceedings. Moreover, Patent Owner has failed to explain how the Mr. Sasse's supplemental declarations persuasively established that "(i) there is no necessary relationship between the concentration of lubricant added to a polymeric material and that material's coefficient of friction and (ii) there is no necessary relationship between a reduction in coefficient of friction of a polymeric material and the reduction in pulling force of a cable" (PO Req. for Reh'g 12) when Summers is silent with respect to PVC as a cable jacket material (*see, e.g.*, col. 3, ll. 45–48, 65–66).

Eighth, Patent Owner argues "the Board raises two new grounds for disregarding Southwire's commercial success evidence." (PO Req. for Reh'g 13.) In particular, Patent Owner argues that "the Board articulated two entirely new reasons for discounting Southwire's evidence of commercial success and copying" because "the Board found that the

statement in the McCardel Declaration attributing the increase in Southwire's market share to the sales of the commercial embodiment *SIMPull* cable lack persuasive factual support" (PO Req. for Reh'g 15) and "the Board found that the McCardel and Adams Declarations lack persuasive factual support because they allegedly contain only 'general allegation[s]' that competitors have been copying Southwire's patented invention" (*id.* at 16). Requester disagrees and argues "the reasoning expressed by the Board cannot be considered a new ground because the Patent Owner had ample opportunity to respond to the assertion that the Declarations lack factual support when the Requestor raised that assertion both to the Examiner and to the Board on appeal." (Requester Comments 10.)

It is not a new ground of rejection for the Board to respond to Patent Owner's arguments using different language, or restating the reasoning of the rejection in a different way, so long as the evidence relied upon is the same and the "basic thrust of the rejection" is the same. *See In re Kronig*, 539 F.2d 1300, 1303 (CCPA 1976). In Requester's Comments, filed March 13, 2013, responsive to the Patent Owner's response to a Non-final Office Action, Requester argued that with respect to the McCardel and Adams Declarations, "[t]he evidence and arguments submitted by the Patent Owner completely fail to establish any such nexus, much less provide any showing that such a nexus is tied to novel aspects of the claims, and thus should not be given any evidentiary weight." (P. 35.) Requester's arguments with respect the McCardel and Adams Declarations were implicitly adopted by the Examiner in the Right of Appeal Notice. (*See* RAN 58.) Accordingly,

Patent Owner's arguments that "the Board articulated two entirely new reasons for discounting Southwire's evidence of commercial success and copying" (PO Req. for Reh'g 15) are inaccurate. Thus, the finding in our Decision that McCardel and Adams Declarations lack persuasive factual support (Dec. 16–20) is not it new ground, because such a finding restates the reasoning of the rejection in a different way without changing the "basic thrust of the rejection." *See Kronig*, 539 F.2d at 1303.

Ninth, Patent Owner argues that "the Board erred as a matter of law in affirming the Examiner's reasoning that Southwire must show evidence of commercial success for each and every potential embodiment of the claims." (PO Req. for Reh'g 14.)

However, our decision to sustain the Examiner's findings that the McCardel and Adams Declarations were insufficient to rebut the prima facie case of obviousness was not based upon Patent Owner's failure to "show evidence of commercial success for each and every potential embodiment of the claims" (PO Req. for Reh'g 14), as argued by Patent Owner. (*See* Dec. 16–20.) Accordingly, Patent Owner has failed to "state with particularity the points believed to have been misapprehended or overlooked [by] the Board[]" as required by 37 C.F.R. § 41.79(b)(1).

Last, Patent Owner argues "the long-felt need had not been solved by Summers because Summers does not disclose whether its optional friction-reducing additive causes any reduction in the installation pulling force of a cable." (PO Req. for Reh'g 17.) In particular, Patent Owner argues that "because Summers fails to disclose whether there is any reduction of pulling force as compared to a non-lubricated cable of the same type and size, and is

completely silent with regards to the claimed 30% reduction, it fails to solve the long-felt need." (*Id.*) Requester disagrees and argues "Summers expressly discloses [in column 3, line 65 to column 4, line 4] that the friction reducing additive results in reduced coefficient of friction and pulling force" (Requester Comments 10) and "there is certainly no evidence of any long-felt need tied to the claimed 30% reduction in pulling force as measured by the joist-pull test" (*id.* at 11).

Other than reiterating an argument that was previously presented (PO Req. for Reh'g 17), Patent Owner has failed to "state with particularity the points believed to have been misapprehended or overlooked [by] the Board[]" as required by 37 C.F.R. § 41.79(b)(1).

CONCLUSIONS

The Request for Rehearing has been considered. As discussed previously, we *grant* the Request for Rehearing to modify page 13 of our original Decision. The Request for Rehearing is otherwise *denied*. Accordingly, the Request for Rehearing is *granted-in-part*.

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).

REHEARING GRANTED-IN-PART

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Reexamination Control 95/000,696
Patent 7,557,301 C1

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